DRAFT FOR PULIC REVIEW (10/2020)

YORK COUNTY REGIONAL CHESAPEAKE BAY POLLUTANT REDUCTION PLAN

(2018-2023)

SUBMITTED TO PA DEP SEPTEMBER 15, 2017
(REVISED AND RESUBMITTED OCTOBER 10, 2017)
(REVISED AND RESUBMITTED _____, 2020)

PREPARED BY THE YORK COUNTY PLANNING COMMISSION IN COOPERATION WITH THE YORK COUNTY STORMWATER CONSORTIUM

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YORK COUNTY COMMUNITY FOUNDATION, AND
YORK COUNTY STORMWATER CONSORTIUM

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York County Regional Chesapeake Bay Pollutant Reduction Plan (CBPRP) Participants

Carroll Township*
Chanceford Township***
Conewago Township***
Dallastown Borough*
Dillsburg Borough*
Dover Borough***
Dover Township*
Fairview Township*
Felton Borough***
Franklintown Borough***
Glen Rock Borough
Goldsboro Borough***
Hallam Borough***
Hanover Borough*
Hellam Township***
Jackson Township*
Jacobus Borough***
Lewisberry Borough***
Loganville Borough***
Lower Windsor Township***
Manchester Borough*
Manchester Township*
Monaghan Township*
Mount Wolf Borough*
New Salem Borough***
Newberry Township*
North Hopewell Township
North York Borough*
Penn Township*
Red Lion Borough*
Spring Garden Township*
Spring Grove Borough**
Springettsbury Township*
Springfield Township*
West Manchester Township*
West Manheim Township*
West York Borough*
Windsor Borough*
Windsor Township*
Wrightsville Borough***
Yoe Borough*
York City*
York County***
York Township*
York Haven Borough***

* MS4 Permittee – Regional CBPRP meeting Permit requirement
** MS4 Permittee – Submitted Individual Municipal CBPRP
*** MS4 Permittee – Received Permit Waiver from PADEP

YORK COUNTY REGIONAL
CHESAPEAKE BAY POLLUTANT REDUCTION PLAN
(2018 – 2023)

TABLE OF CONTENTS

Introduction

This Chesapeake Bay Pollutant Reduction Plan (CBPRP) represents a regional effort by York County municipalities to meet a component of the Pennsylvania Department of Environmental Protection (PADEP) Municipal Separate Storm Sewer (MS4) permitting requirements. More specifically, the permitting requirements covered by this plan include Pollutant Reduction Plans (PRPs) for stormwater discharges to local surface waters impaired for nutrients and/or sediment, and Chesapeake Bay Pollutant Reduction Plans (CBPRPs) for stormwater discharges to surface waters located within the Chesapeake Bay watershed. As a regional plan, this CBPRP addresses both the local impairment PRP and CBPRP pollutant loading reduction requirements.

This document was prepared following the guidance provided in the Pennsylvania Department of Environmental Protection (DEP) document 3800-PM-BCW0100k: National Pollutant Discharges Elimination Systems (NPDES) Stormwater Discharges from Small Municipal Septate Storm Sewer Systems Pollutant Reduction Plan (PRP) Instructions (rev. 3/2017).

There are 45 participants, including 44 municipalities and the County of York. Forty-three (43) of the participants are designated MS4s. However, 16 of the 43 MS4 participants received a Permit Waiver from PADEP for the 2018-2023 Permit cycle. The remaining two (2) municipalities are non-MS4s. Per the Intergovernmental Cooperation Agreement for implementation of the Regional CBPRP, the participants are collectively the *York County Stormwater Consortium* (YCSWC). Appendix I includes a complete list of participating municipalities and their MS4 status.

Section A: Public Participation

A.1. 2017 Draft Regional CBPRP

A complete copy of the first draft Regional CBPRP was available for a 30-day public review period at the York County Planning Commission (YCPC) office. It was also available for review on the YCPC website from July 19, 2017, through August 18, 2017. Additionally, there was a public notice in the July 18, 2017, edition of the *Harrisburg Patriot-News*. The published public notice contained a brief description of the Plan, the dates and locations at which the Plan was available for review by the public, the length of time provided for receipt of written comments (30 days), and the date/time/location of the public meeting. Appendix II includes a copy of the public notice and proof of publication.

A public meeting occurred on August 9, 2017, at the West Manchester Township Municipal Building (380 East Berlin Road, York, Pennsylvania) to present an overview of the draft Regional CBPRP to the public. Appendix II includes the following:

- Comments and questions received during the public meeting, as well as the responses provided;
- A copy of all written comments submitted to the YCPC during the 30-day comment period, together with the record of consideration; and
- Changes made to the Plan as a result of public comment.

A.2. 2020 Revised Draft Regional CBPRP

[To be added before final submission]

Section B: Map

The Planning Area Map shows the impaired streams, municipal boundaries, and watershed boundaries for the four (4) primary watersheds located within York County. The regional CBPRP Planning Area consists of the 2010 Census Urbanized Area (UA) for the 27 YCSWC MS4 municipalities that did not request Advanced Waiver Approval from PADEP, the drainage area for two (2) projects that were in parsed municipalities, and the area that topographically drains into it, as delineated using two (2) foot contours. It covers approximately 113,844 acres and encompasses portions of the County's four (4) primary watersheds (Codorus Creek, Conewago Creek, Kreutz-Muddy Creek, and Yellow Breeches Creek). For the Regional CBPRP, the planning area and storm sewershed are synonymous. The Consortium developed this approach in consultation with PADEP.

The Planning Area was refined by parsing out the following:

- The UA and area that drains to it of five (5) non-participating MS4 municipalities.
- The UA and area that drains to it of 12 MS4 municipalities that received a Permit Waiver from PADEP.
- The UA and area that drains to it of three (3) MS4 municipalities that a Permit Waiver from PADEP, except that the drainage area for projects included in the Plan are included in the Planning Area as noted above.

Appendix III contains the Planning Area Map, Land Use by Watershed Maps, and the Proposed BMPs Location Map. Showing the land uses by watershed demonstrates the varying landscape of the Planning Area. Mostly, the Planning Area consists of intensive residential, commercial, and industrial land uses and encompasses many of the County's sediment impaired streams. The Proposed BMPs Location Map shows BMPs at both the Planning Area and watershed level.

Section C: Pollutants of Concern

Portions of the four (4) primary watersheds in the Planning Area (Yellow Breeches Creek, Conewago Creek, Codorus Creek, and Kreutz-Muddy Creek) are impaired. The pollutants of concern for each watershed were determined by referencing the PADEP's Pollutant Aggregation Suggestions for MS4 Requirements Table (Municipal) (rev. 5/9/2017) provided in Appendix IV. As there are multiple impaired stream segments located within the planning area, this plan addresses impairments and pollutants of concern on a watershed basis rather than by individual stream (Table 1).

Table 1. Pollutants of Concern by Planning Watershed

Planning Area Watershed	Pollutants of Concern
Yellow Breeches Creek	Chesapeake Bay (Nutrients/Sediment); Fishing Creek (Siltation); Unnamed Tributaries to Fishing Creek (Nutrients); Fishers Run (Siltation); Big Spring Run (Siltation); Stoney Run (Siltation); Unnamed Tributaries to the Yellow Breeches (Siltation); Marsh Run (Siltation)
Conewago Creek	Chesapeake Bay (Nutrients/Sediment); Plum Creek (Siltation); Honey Run (Siltation); Bennett Run (Siltation); Little Conewago Creek (Siltation); North Branch Bermudian Creek (Nutrients, Siltation); South Branch Conewago Creek (Siltation); Unnamed Tributaries to Bermudian Creek (Nutrients, Siltation);
Codorus Creek	Chesapeake Bay (Nutrients/Sediment); Codorus Creek (Siltation); South Branch Codorus Creek (Nutrients); Mill Creek (Siltation); Barshinger Creek (Siltation); Inner Creek (Siltation); Unnamed Tributaries to Codorus Creek (Nutrients); Oil Creek (Nutrients, Siltation); Gitts Run (Siltation)
Kreutz-Muddy Creek	Chesapeake Bay (Nutrients/Sediment); North Branch Muddy Creek (Siltation); Pine Run (Siltation); Fishing Creek (Siltation); Unnamed Tributaries to Kreutz-Muddy Creek (Siltation)

According to the guidance provided in the PRP instructions, it is assumed that meeting the sediment reduction goal will also result in achievement of the phosphorus and nitrogen reduction goals. Therefore, from this point forward, this Plan references sediment as the pollutant of concern.

Section D: Determine Existing Loading for Pollutants of Concern

D.1 Existing Pollutant Load Calculation

The Simplified Method[1] was used to determine the Regional CBPRP existing pollutant loading for sediment (TSS) using a four (4)-step process. Step 1 entailed multiplying the impervious/pervious developed land acreages listed in the PRP Instructions[2] for the UA of each participating municipality within the Planning Area by the Developed Land Loading Rates for York County[3] to determine their existing baseline pollutant loading. Step 2 involved multiplying the impervious/pervious developed area of the two (2) project drainage areas within the Planning Area by the Developed Land Loading rates for York County. Step 3 required multiplying the pervious developed area of the lands draining to the UA by the Land Located Outside the Planning Area rate for York County. In the final step, the results of Steps 1 through 3 were totaled to determine the existing baseline pollutant loading for sediment (TSS) that is applicable to the Regional CBPRP (see Table 2).

Table 2. Existing Baseline Pollutant Loading

Planning Area Developed Land		**Developed Land Pollutant Loading Rate**	**Existing Baseline Pollutant Load[3]**
Category	Acres	TSS (lbs/ac/yr)	TSS (lbs/yr)
Pervious	75,508.8	220.4	16,641,479
Impervious	29,183.3	1,614.15	47,114,286
Land Draining to UA	9,150.0	234.6	2,146,590
Total	**113,844.1**		**65,902,356**

The approximate pollutant loads for each of the four (4) primary watersheds were also calculated. This involved estimating the developed land acreage within the applicable portion of each watershed and computing the percent of the total Planning Area Developed Land contained within each watershed. These percentages were then correlated to the total existing baseline pollutant load to determine the approximate pollutant load associated with each watershed (Table 3).

[1] PADEP Document 3800-PM-BCW0100k, PRP Instructions Attachment C, "Chesapeake Bay PRP Example Using DEP Simplified Method" (Rev. 3/2017)

[2] PADEP Document 3800-PM-BCW0100k, PRP Instructions Attachment B "Developed Land Loading Rates for PA Counties" (Rev. 3/2017)

Table 3. Approximate Pollutant Loading by Planning Watershed

Watershed	Percent of Total Planning Area Developed Land	Approximate Pollutant Load TSS (lbs/yr)
Codorus Creek	43%	28,338,013
Conewago Creek	22%	14,498,518
Kreutz-Muddy Creek	15%	9,885,354
Yellow Breeches Creek	20%	13,180,471
Total		**65,902,356**

D.2 Baseline Adjustment for Previously Implemented BMPs

Construction of many water quality BMPs occurred within the Planning Area, prior to completion of this CBPRP, and continue to function as designed. These BMPs are claimed as credit to reduce the existing baseline loading for sediment (Table 4). For the most part, they relate to land development projects that were required to complete NPDES-related BMPs to comply with Chapter 102 requirements and independent municipal capital improvement projects.

Table 4. Adjusted Baseline Pollutant Loading

Baseline	Pollutant Load TSS (lbs/yr)
Baseline Pollutant Loading	**65,902,356**
Installed BMP Reduction	1,035,686
Adjusted Baseline	**64,866,670**

Appendix V includes a summary table of the BMPs installed within applicable participating municipalities and the corresponding pollutant load reduction. The existing BMP data spreadsheets submitted by participating municipalities (also included in Appendix V) was the basis for generating the summary table. The municipal spreadsheets show the existing BMPs by type, using the BMP names on the PA DEP BMP Effectiveness Values table. They also show the impervious and pervious acres for each BMP type. These were added together to get the total impervious/pervious acres for each BMP type. Using the Simplified Method, the TSS pollutant load reduction for each BMP type in each municipality was calculated.

More detailed information regarding the design, construction, operation and maintenance requirements, and confirmation that operation and maintenance is occurring for each BMP is on file at the municipal building in the jurisdiction where the BMP is located, as required by MS4 Permit conditions. Additionally, the installed BMP list in Appendix V includes BMP information from two (2) non-municipal permittees, PennDOT and the Defense Distribution Center, Susquehanna. As these non-municipal permittees contain facilities within York County with installed BMPs, the pollutant load reductions associated with these BMPs were also determined using the Simplified Method and were counted as a reduction from York County's baseline pollutant loading.

Section E: Select BMPs to Achieve the Minimum Required Reductions in Pollutant Loading

E.1 Pollutant Reduction Requirements

York County includes municipalities regulated by PAG-13 General Permit, Appendix E (nutrients and/or sediment in stormwater discharges to impaired waterways), as well as municipalities regulated by Appendix D (nutrients and sediment in stormwater discharges to waters in the Chesapeake Bay watershed). Appendix E impairments based on siltation or total suspended solids (TSS) require a minimum 10% TSS reduction and impairments based on nutrients require a minimum 5% total phosphorus (TP) reduction. The pollutants of concern for Appendix D are TSS, TP, and total nitrogen (TN), with required loading reductions of 10%, 5%, and 3%, respectively. However, it is presumed that within the overall Bay watershed, the TP and TN goals will be achieved when a 10% reduction in sediment is achieved[4]. Likewise, for this Regional CBPRP, it is presumed that by targeting the placement of BMPs in impaired portions of the planning area watersheds and meeting the overall CBPRP 10% TSS reduction, the nutrient reductions of the impaired watersheds regulated by Appendix E are also met. Therefore, only the required 10% TSS reduction was calculated herein as a required load reduction for the Regional CBPRP (Table 5).

Table 5. Required York County Regional CBPRP Pollutant Reduction Goal

Planning Area Load Reduction	**Developed Land (acres)**	**Pollutant Load**
		TSS (lb/yr)
York County Adjusted Baseline	113,844	64,866,670
Required Reduction Percentage		10%
Load Reduction Goal		**6,486,667**

E.2 Proposed BMPs

This section outlines the BMP implementation strategy developed to achieve the required pollutant load reduction goal of 6,486,667 lbs/year of sediment. Identification of proposed BMPs were determined from review of project ideas submitted by participating municipalities, project site visits, and conversations with municipal secretaries/managers and MS4 staff, a performance-based request for bids, as well as steering committee/YCSWC meeting input, and outreach meetings.

The following factors were considered when evaluating which projects to include in the plan: anticipated cost effectiveness, location relative to an impaired waterway, treatment of a significant drainage area, ability to be grouped with similar projects for design and construction cost savings, and location within the planning area. The chosen projects represent the most cost-effective strategy to achieve the greatest pollutant load reduction. From this evaluation, implementation will include nine (9) BMP types to meet the sediment pollutant goal (Table 6). These BMP types represent a diverse and cost-effective approach to meet the required reduction goals for the Chesapeake Bay, while also improving the quality of local impaired waterways.

[4] This assumption is stated in the PADEP Document 3800-PM-BCW0100k, PRP Instructions (Rev. 3/2017)

Table 6. Proposed BMP Summary by BMP Type

Proposed BMP Type (# of projects)*	**Total Drainage Area** (acres)	**Area** (acres)	**Total Length** (ft)	**Pollutant Load Reduction** TSS (lbs/yr)
Stream Restoration (41)	n/a	n/a	101,434	20,414,833
Floodplain Restoration (1)	142.7	10.0	n/a	646,000
Bioretention (6)	1,191.2	8.1	n/a	39,466
Basin Retrofit (15)	404.7	13.3	n/a	133,512
Bioswale/Swale Retofit (3)	52.7	1.0	n/a	28,061
Infiltration (1)	5.0	0.4	n/a	4,098
Water Re-Use (1)	21.8	22.8	n/a	30,440
Wetlands Restoration (2)	310.0	5.5	n/a	86,314
Riparian Buffer (2)	n/a	4.8	n/a	7,605
Conservation Landscaping/Tree Planting (2)	n/a	4.3	n/a	580
Total				**21,390,909**

* As reflected under Project Type on Tables 8A-8D.

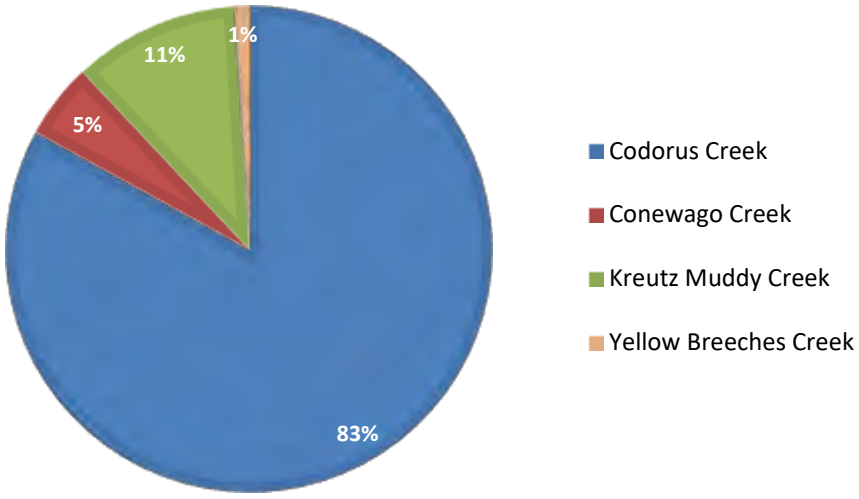
The pollutant loading reductions for each proposed BMP were calculated in terms of pounds per year of sediment using the BayFAST modeling tool, except that 44.88 lbs/foot/year was used for the majority of stream restoration projects. For some of the proposed BMPs already completed during the 2018-2023 Permit cycle, the contractor calculated the reductions using the Expert Panel Protocol. Additionally, for stream restoration projects included in the Aquatic Resource Restoration Performance-Based Contract, time based field measurements using bank pins determined the estimated sediment reduction. As depicted in Table 6, the majority of anticipated sediment reductions are attributed to projects that directly restore streambanks and associated floodplains. Appendix VI provides pollutant load Reduction Sample Calculations for proposed BMPs.

In order to encourage the equitable distribution of BMP projects throughout the Planning Area and meet the intent of the PAG-13 pollutant reduction planning requirements, projects are located throughout the four (4) primary watersheds in the Planning Areas. Table 7 and Figure 1 depict the BMP project distribution. As shown, the Codorus Creek Watershed, which has the greatest anticipated pollutant load reduction, also has the greatest portion of regulated developed land. The other watersheds are significantly lower.

Table 7. Anticipated Pollutant Load Reduction by Planning Area Watershed

Planning Area Watershed	% of Planning Area Developed Land	BMP Pollutant Load Reduction (TSS lbs/yr)	% of Total Reduction
Codorus Creek	43%	17,676,132	83%
Conewago Creek	22%	1,167,284	5%
Kreutz-Muddy Creek	15%	2,337,095	11%
Yellow Breeches Creek	20%	210,398	1%
Total		**21,390,909**	**100%**

Figure 1. Anticipated Pollutant Load Reduction by Planning Area Watershed



E.2.1 Proposed BMPs by Watershed

The 2014 York County Regional CBPRP[5], approved by PA DEP in a letter dated August 31, 2015, set the groundwork for this Regional Chesapeake Bay Pollutant Reduction Plan (CBPRP). The YCDSWC implemented and the Plan and annually reported progress during the 2013 PAG-13 permit term. During development of the BMP planning strategy for this Plan, participants of the 2014 Plan were asked to determine the status of unconstructed BMP projects in that Plan. Additionally, the YCSWC solicited ideas for new BMP projects from all participants. Municipal leaders prioritized the projects for inclusion in this Plan. Additionally private sector property owners/consultants submitted projects that, upon review and approval by the YCSWC, are included in the Plan. Finally, the YCSWC solicited bids for performance-based proposals to reduce 4 million pounds of TSS per year. The projects included in the proposal of the selected consultant are part of this Plan. Tables 8A through 8D provide a complete list of the proposed projects by watershed. More detailed project information is available in Appendix VII.

[5] *York County Regional Chesapeake Bay Pollutant Reduction Plan* (April 2014), prepared by YCPC in cooperation with the Center for Watershed Protection

Table 8A: Codorus Creek Watershed Projects

ID #	Project Name	Location	Project Type	Length (ft)	Drainage Area (acres)	Area (acres)	Pollutant Load Reduction TSS (lbs/yr)
1	Broad Street Greenway	York City	Bioretention	n/a	1,088.0	6.2	7,733
2	Center Street Streambank Restoration (Oil Creek)	Penn Township	Stream Restoration	500	n/a	n/a	22,440
3	Campus Avenue Stream Restoration	Spring Grove Borough	Stream Restoration	1,200	n/a	n/a	56,100
12	York City Industrial Park Basin	York City	Basin Retrofit	n/a	39.0	2.3	11,738
16	Stillmeadow Park Restoration (UNT Codorus Creek)	Manchester Township	Stream Restoration	3,850	n/a	n/a	172,788
16	Stillmeadow Park Restoration (UNT Codorus Creek)	Manchester Township	Wetland Restoration	n/a	240.0	4.5	66,864
16	Stillmeadow Park Restoration (UNT Codorus Creek)	Manchester Township	Basin Retrofit	n/a	72.5	2.2	21,830
16	Stillmeadow Park Restoration (UNT Codorus Creek)	Manchester Township	Tree Planting	n/a	n/a	0.3	85
20	Kehm Run Dam Removal Restoration (UNT Mill Creek)	York Township	Wetlands Restoration	n/a	70.0	1.0	19,450
25	Dauberton HOA Basin Retrofit	Manchester Borough	Basin Retrofit	n/a	5.5	0.6	1,647
27	Waste Water Treatment Plant West Tributary	Springettsbury Township	Stream Restoration	2,896	n/a	n/a	360,554
30	York County Solid Waste and Refuse Center	Manchester Township	Water Reuse	n/a	21.8	22.8	30,440
33	Camp Betty Washington Road Stream Restoration	York Township	Stream Restoration	150	n/a	n/a	6,888
38	Hanover School District SWM Demo Project	Hanover Borough	Infiltration & Conservation Landscaping	n/a	5.0	0.4	4,098
39	Sinking Springs Farm Stream Restoration (Ph 1)	Manchester Township	Stream Restoration	1,368	n/a	n/a	131,344
40	Lake Club Restoration Project	North Codorus Township	Stream Restoration	4,200	n/a	n/a	188,496
42	Barshinger Run	North Hopewell & York Townships	Stream Restoration	2,000	n/a	n/a	1,502,591
46	Lincoln Park (UNT Willis Run)	York City	Stream Restoration	515	n/a	0.8	23,113
47	Memorial Park (Poor House Run)	York City	Stream Restoration	2,150	n/a	7.8	96,492

Table 8A: Codorus Creek Watershed Projects

ID #	Project Name	Location	Project Type	Length (ft)	Drainage Area (acres)	Area (acres)	Pollutant Load Reduction TSS (lbs/yr)
48	Farquhar Park/ Kiwanis Lake (UNT Willis Run)	York City	Stream Restoration	3,900	n/a	n/a	175,032
49	Codorus Creek Beautification Project	York City & Spring Garden Townships	Floodplain Restoration	7,392	142.7	10.0	646,000
51	South Branch Codorus Creek (Cwiklinski/Ness)	Springfield & Codorus Townships	Stream Restoration	1,567	n/a	n/a	1,235,632
52	South Branch Codorus Creek (Cwiklinski)	Springfield & Codorus Townships	Stream Restoration	1,800	n/a	n/a	1,047,619
53	East Branch Codorus Creek (Zeigler)	Springfield & North Hopewell Townships	Stream Restoration	2,100	n/a	n/a	3,500,000
54	South Branch Codorus Creek (Ness/Mobility Independent Transportation)	Springfield, Shrewsbury & Codorus Townships	Stream Restoration	1,100	n/a	n/a	2,800,000
55	Centerville Creek (Ness/Mobility Independent Transportation)	Springfield, Shrewsbury & Codorus Townships	Stream Restoration	700	n/a	n/a	780,000
56	East Branch Codorus Creek (IWLA)	York & Springfield Townships	Stream Restoration	2,800	n/a	n/a	3,000,000
58	MacGregor Downs	Manchester Township	Basin Retrofit	n/a	46.8	1.0	20,100
59	BMP #1 (UNT West Branch Codorus)	Jackson Township	Stream Restoration	800	n/a	3.9	36,488
60	BMP #2 (UNT West Branch Codorus)	Jackson Township	Stream Restoration	1,325	n/a	11.0	61,059
61	BMP #3 (UNT West Branch Codorus)	Jackson Township	Stream Restoration	1,850	n/a	8.2	83,967
62	West Branch Codorus Creek (UNT Oil Creek)	West Manheim & Penn Townships	Stream Restoration	1,500	n/a	n/a	1,500,000
67	Little Creek Park	Jackson Township	Riparian Forest Buffer	n/a	n/a	2.7	5,042
68	Queenswood Improvements (UNT Mill Creek)	York Township	Stream Restoration	900	n/a	n/a	40,392
82	Ensminger Drive Swale Rehabilitation	Springfield Township	Swale Retrofit / Bioswale	n/a	22.5	0.2	20,110
TOTAL							**17,676,132**

Table 8B: Conewago Creek Watershed Projects

ID #	Project Name	Location	Project Type	Length (ft)	Drainage Area (acres)	Area (acres)	Pollutant Load Reduction TSS (lbs/yr)
4	West Manchester Tree Planting (Little Conewago Conservation Area)	West Manchester Township	Tree Planting	n/a	n/a	4.0	495
5	West Manchester Bioswale	West Manchester Township	Bioswale	n/a	7.8	0.7	2,341
6	Manhaven Manor Retrofit	Manchester Borough	Basin Retrofit	n/a	5.6	0.4	1,669
13	Wyngate Detention Basin	Dover Township	Basin Retrofit	n/a	40.0	0.5	12,034
14	Dover Township Community Center	Dover Township	Basin Retrofit	n/a	20.1	0.8	6,047
17	Poplar Street Swale Retrofit	Hanover Borough	Bioretention	n/a	32.4	0.5	13,503
19	Homewood Streambank Restoration (Plum Run)	Penn Township	Stream Restoration	1,600	n/a	n/a	71,808
24	Dover Twp/West Manchester Twp Stream Restoration (Little Conewago Creek)	Dover & West Manchester Townships	Stream Restoration	5,600	0.8	n/a	251,328
24	Dover Twp/West Manchester Twp Stream Restoration (UNT Little Conewago Creek)	West Manchester Township	Stream Restoration	1,230	n/a	n/a	55,202
28	Dover Twp Public Works Facility	Dover Township	Bioretention	n/a	11.2	1.0	2,704
41	Little Conewago Creek Channel Rehabilitation	Dover & West Manchester Townships	Stream Restoration	10,540	n/a	n/a	473,035
43	Crooked Wind Tributary Restoration	Manchester Township	Stream Restoration	2,200	n/a	n/a	98,736
50	Dover Twp Eagle View Park Fox Run restoration	Dover Township	Stream Restoration	2,960	n/a	n/a	132,844
63	Golden Tract SWM Facility Retrofit	West Manchester Township	Basin Retrofit	n/a	17.6	1.0	5,835
66	Solar Drive Buffer Planting & Bioretention	Dover Township	Riparian Buffer & Bioretention	n/a	31.1	2.2	3,799
76	Danielle and Willipa Drives (Little Conewago Creek)	Dover Township	Stream Restoration	800	n/a	n/a	35,904
TOTAL							**1,167,284**

Table 8C: Kreutz-Muddy Creek Watershed

ID #	Project Name	Location	Project Type	Length (ft)	Drainage Area (acres)	Area (acres)	Pollutant Load Reduction TSS (lbs/yr)
9	Penn Oak Park (UNT Kreutz Creek)	Springettsbury Township	Stream Restoration	950	n/a	n/a	42,636
10	Stonewood Park (UNT Kreutz Creek)	Springettsbury Township	Stream Restoration	1,270	n/a	n/a	56,998
11	Camp Security Park (UNT Kreutz Creek)	Springettsbury Township	Stream Restoration	1,151	n/a	n/a	84,376
22	Concord Office Center (Kinsley)	Springettsbury Township	Basin Retrofits	n/a	2.2	0.3	644
23	Concord Business Park (Concord Rd Assoc)	Springetsbury Township	Basin Retrofit	n/a	13.0	0.2	3,911
29	Riverfront Park GI Plan (Bioretention Basin 1)	Wrightsville Borough	Bioretention	n/a	22.6	0.2	9,415
44	Kreutz Creek Restoration	Windsor Township	Stream Restoration	15,340	n/a	n/a	688,459
45	Pine Run	Chanceford & Windsor Townships	Stream Restoration	1,472	n/a	n/a	860,870
65	Fishing Creek Study Stream Restoration	Windsor Borough & Windsor Townships	Stream Restoration	6,700	n/a	n/a	300,696
77	Kreutz Creek Stream/Swale Restoration	Hallam Borough	Stream/Swale Restoration	675 (stream)	22.4 (swale)	0.09 (swale)	35,904
78	Kreutz Creek Stream Restoration	Hallam Borough	Stream Restoration	3,160	n/a	n/a	141,821
79	Riverfront Park GI Plan (Bioretention Basin 2, Bioswale 2)	Wrightsville Borough	Bioretention/ Bioswale	n/a	11.9	0.1	4,875
80	Prison Property SW Facility Upgrade (UNT Kreutz Creek)	Springettsbury Township (York County Project)	Basin Retrofits	n/a	35.0	1.1	10,533
83	Stream/Drainage Improvement (Fishing Creek)	Windsor Borough	Stream Restoration	1,690	n/a	n/a	75,847
84	Milner Heights Basin Retrofit	Windsor Township	Basin Retrofit	n/a	55.0	1.0	20,110
Total							2,337,095

Table 8D: Yellow Breeches Watershed Projects

ID #	Project Name	Location	Project Type	Length (ft)	Drainage Area (acres)	Area (acres)	Pollutant Load Reduction TSS (lbs/yr)
15	Emily Lane Stormwater Pond	Fairview Township	Basin Retrofit	n/a	7.0	0.4	2,104
21	Red Land High School Stream Restoration (UNT Fishing Creek)	Fairview Township	Stream Restoration	2,900	n/a	n/a	130,152
32	Chestnut Hollow Basin Enhancements	Carroll Township	Basin Retrofit	n/a	29.2	0.6	12,000
34	South York Street (Fishing Creek) Ph II	Goldsboro Borough	Stream Restoration	1,400	n/a	n/a	49,368
57	138 South York Street (Fishing Creek) Ph I	Goldsboro Borough	Stream Restoration	300	n/a	n/a	13,464
64	Walmart SWM Facility Retrofit	Newberry Township	Basin Retrofit	n/a	16.3	1.0	3,310
Total							**210,398**

E.2.3 Project Schedule and Project Descriptions

A Project Schedule and project description sheets for the proposed BMP projects are included in Appendix VII. Unless otherwise noted, the proposed BMP projects have not been fully designed. Many of the project descriptions are conceptual and intended for planning purposes. Proposed projects were evaluated in terms of preliminary feasibility and anticipated pollutant load reductions in order to meet the goals of this Plan. Design of the proposed BMPs will be in accordance with the Pennsylvania BMP Manual design guidance and all local ordinances. Additionally, as many of the proposed projects include stream restoration, design of these projects will be in accordance with the requirements listed in DEP's stream restoration guidance[6]. Annual MS4 Status will include additional details and calculations for each proposed project developed during the design and implementation project phases.

E.3 Partnerships

Non-municipal MS4s and industrial permittees were not parsed out of this plan. As a result, stormwater management BMP accomplishments of other NPDES permit holders can also count toward meeting the Regional CBPRP pollutant reduction goals, provided that they meet pollutant reduction plan criteria.

E.3.1 PennDOT Partnership

This planning strategy only cites one PennDOT project as a planned project contributing to the planning goal (see York County Pilot Project below). However, through the Regional CBPRP,

[6] PADEP, "Consideration of Stream Restoration Projects in Pennsylvania for Eligibility as an MS4 Best Management Practice" (June 22, 2017)

participating municipalities may take credit in the Annual MS4 Status Reports for other eligible PennDOT water quality BMP projects.

Municipal Coordination

PennDOT will prepare a guidebook to inform municipalities in Sediment-Impaired Watersheds in urbanized areas of opportunities to support their own pollution reduction goals through partnering on future highway projects. PennDOT will provide a draft of this guidebook to DEP for review and comment during the first year of coverage under the permit. PennDOT will distribute the guidebook to municipalities through planning partners, PennDOT's website, and Local Technical Assistance Program training. PennDOT and the municipality will share any reductions achieved through partnership projects, provided the municipality either contributes funding or agrees to perform the long-term operation and maintenance responsibilities for the additional or enhanced stormwater controls.

As part of the Annual MS4 Status Reports submitted under this permit, PennDOT will provide a list of actions taken by the department to support municipalities in achieving their PRP goals in Sediment Impaired Watersheds in urbanized areas.

York County Pilot Project

PennDOT purchased Chesapeake Bay Sediment Reduction credits in a subwatershed of the Codorus Creek watershed of York County, PA, as part of a U.S Environmental Protection Agency (EPA) approved Supplemental Environmental Project (SEP). The purpose of the SEP was to undertake an environmentally beneficial project that would not otherwise be associated with the typical environmental mitigation obligations required for PennDOT construction projects. The York County Pilot Project served to evaluate an alternative procurement method to streamline efforts in reducing erosion rates and controlling sediment deposits in the Codorus Creek watershed, with special emphasis on Mill Creek and an unnamed tributary north of the US 30 interchange. PennDOT leveraged this partnership and collaboration through implementation of this SEP whereby both PennDOT and the Consortium will report the nutrient reduction credits in the Annual MS4 Status Report. The project, Sinking Springs Farm Stream Restoration (ID #39), was successfully completed 12/06/2019, with a sediment reduction of 131,344 lbs/year. However, the amount of sediment reduction may increase as the result of post construction stormwater monitoring. PennDOT may consider using this procurement method on a larger scale in implementing future sediment reduction loading requirements.

E.3.2 Kinsley Properties Partnership

Kinsley Properties is a York County-employer and major landholder that owns and operates a number of stormwater BMPs, some of which are retrofit projects in this Regional Plan. Should the initial detention basin retrofits be successful, it is anticipated that an on-going partnership may occur; expanding the potential for additional stormwater retrofits and potential construction cost savings. Should additional BMPs be constructed in partnership with Kinsley Properties during the implementation phase of this Plan, they will be reported through the Annual MS4 Status Report.

E.3.3 Defense Distribution Center, Susquehanna Installed BMPs during the Permit Term

The Defense Distribution Center, Susquehanna, operated by the United States Department of Defense (DoD), has NPDES permit coverage for MS4 regulations. To that end, the DoD must achieve similar pollutant reduction goals during the 2018 permit term. This planning strategy does not, specifically, cite any DoD projects as planned projects contributing to the planning goal. However, it is understood that through the Regional CBPRP, participating municipalities are eligible to take credit in the Annual MS4 Status Report for DoD projects constructed on the Defense Distribution Center, Susquehanna site. The estimated pollutant load reduction goal anticipated to be achieved by the DoD Facility is included in Appendix VI.

E.3.4 PA Turnpike Commission Installed BMPs during the Permit Term

Similar to PennDOT, the Pennsylvania Turnpike Commission operates roadways within York County. This Plan assumes that any transportation agency projects that include stormwater management BMPs, meeting pollutant reduction plan criteria, will be creditable to the Regional CBPRP.

E.4 Other Reportable BMPs

Although this Regional CBPRP outlines enough planned projects to meet the sediment reduction goal, additional reductions may be achieved through other municipal pollutant reduction planning actions and approvals. Described below are examples of BMP reporting opportunities. The YCSWC will accept any permit-eligible BMP documentation for such pollutant reductions and include it in the Annual MS4 Status Reports. However, at this time, the Plan does not include any pollutant reduction estimates for such activities.

E.4.1 Stormwater Drain/Inlet Cleaning

As part of on-going MS4 maintenance, several municipalities within York County routinely remove solids from their stormwater drains/inlets. To claim credit for these activities, they must be conducted in accordance with minimum standards outlined for qualifying storm drain cleaning practices in the Chesapeake Bay Program expert panel report.[7] The BMP Effectiveness Values Table[8] provides guidance on how to calculate the corresponding sediment reduction. If participating municipalities do track stormwater drain/inlet cleaning in accordance with PADEP requirements, they may take credit in the Annual MS4 Status Reports. The reported reduction will contribute toward meeting the regional sediment reduction five (5)-year goal.

E.4.2 Land Development BMPs Installed On Sites with Less than One Acre of Disturbance

To the extent that local municipal ordinances require the installation of stormwater BMPs at construction sites, where land disturbance will be less than one (1)-acre, those BMPs are reportable

[7] Chesapeake Bay Program Expert Panel, *Recommendation of the Expert Panel to Define Removal Rates for Street and Storm Drain Cleaning Practices* (5/19/2016)
[8] PADEP Document 3800-PM-BCW0100m, NPDES Stormwater Discharges from Small MS4s BMP Effectiveness Values (Rev. 5/2016)

in the Annual MS4 Status Reports. The reported reductions will contribute toward the regional sediment reduction five (5)-year goal.

E.4.3 Street Sweeping/Cleaning

Municipalities that regularly conduct street sweeping/cleaning may use this practice for sediment reduction credit. However, the street sweeping/cleaning must be in accordance with minimum standards outlined for qualifying practices in the Chesapeake Bay Program expert panel report for street sweeping/cleaning.[9] The PADEP BMP Effectiveness Values Table[10] provides guidance on how to calculate the corresponding sediment reduction. The activity and reduction is reportable in the Annual MS4 Status Reports. The reported reduction will contribute toward meeting the regional sediment reduction five (5)-year goal.

[9] Chesapeake Bay Program Expert Panel, *Recommendation of the Expert Panel to Define Removal Rates for Street and Storm Drain Cleaning Practices* (5/19/2016)
[10] PADEP Document 3800-PM-BCW0100m, NPDES Stormwater Discharges from Small MS4s BMP Effectiveness Values (Rev. 5/2016)

Section F: Identify Funding Mechanisms

The participating municipalities will implement this Plan through an Intergovernmental Cooperation Agreement (ICA) executed by the governing body of each participant. The ICA identifies the participants, the administering agency, the funding mechanism, the governance structure, and other details for implementation of the Plan. The agreed upon funding mechanism for implementing the BMP projects is a cost share formula that includes the population based on the 2010 U.S. Census, the linear miles of impaired streams, and the acres of impervious coverage. Participating municipalities with an MS4 permit share the cost to design, permit, and construct the projects, while the participating municipalities who receive a waiver and those that are non-permit holders share the administrative costs to implement the Plan. The formula and the costs for each municipality to participate in the plan are included in the ICA (Appendix IX).

The Regional CBPRP identifies 71 planned projects that far exceeds the pollutant reduction goal. The project schedule (see Appendix VII) proposes completion of at least 35 of these projects during the permit cycle to meet the pollutant reduction goal, with an estimated cost of approximately $21 million. The YCSWC will award approximately $12.2 million to project sponsors for implementation of these projects. When considering requests for funding, the YCSWC will seek to have project sponsors provide 20% of the total project cost through grants, donations, in-kind services, and/or other sources. From October 2017 through June 2020, the YCSWC completed ten (10) projects with a combined total cost of slightly more than $2.4 million and the YCSWC share was only 12%.

In addition to the YCSWC, grants, donations, and in-kind services, other funding mechanisms include public/private partnerships, performance-based contracts, and efficiencies realized through regional scale projects. Potential grant sources include, but are not limited to:

- Pennsylvania Infrastructure Investment Authority (PENNVEST)
- Growing Greener Plus
- PA DEP & PA DCNR
- Pennsylvania Department of Conservation and Natural Resources (DCNR), applicable if stormwater BMPs are combined with a DCNR-priority project
- Commonwealth Finance Agency (Act 13) Watershed Restoration and Protection Program
- Pennsylvania Infrastructure Bank, applicable if stormwater BMPs are combined with a PennDOT-priority project
- National Fish and Wildlife Foundation (NFWF)
- Exelon Habitat Improvement Program funds through the PA Fish and Boat Commission and the York County Conservation District
- United States Army Corp of Engineers (USACE)
- Federal Emergency Management Agency (FEMA)/Pennsylvania Emergency Management Agency (PEMA), applicable if stormwater BMPs relate to hazard mitigation
- PennDOT Transportation Alternatives Program
- Susquehanna River Basin Commission (SRBC)

Section G: BMP Operations and Maintenance (O&M)

All stormwater BMP projects installed under this Regional CBPRP will be subject to the applicable municipal Stormwater Management (SWM) Ordinance adopted in accordance with the York County Act 167 Plan and, if applicable, to grant agreement requirements. The Act 167 Model SWM Ordinance requires that SWM BMPs be inspected, at a minimum, annually for the first five (5) years, once every three (3) years thereafter, and during or immediately after the cessation of a ten (10)-year or greater storm.

As design of projects occurs, the designer will generate O&M notes for long-term completion and for documentation purposes. Upon completion of construction, the Operation and Maintenance (O&M) responsibilities for each stormwater BMP project must be included in a SWM BMP O&M Agreement or Plan, as applicable. The frequency and type of O&M Activities will be in accordance with the compliant municipal Act 167 Stormwater Management Ordinance. Appendix VIII provides an overview of municipal SWM Ordinance requirements related to O&M Agreements/Plans and minimum inspection requirements.

The Agreement or Plan is subject to approval by the municipal governing body in which the project is located. Additionally, if the project is located on private land, the landowner must either convey an easement to the municipality or grant the municipality authority to access the property for periodic inspections by the municipality and maintenance, if necessary. As required by the PRP Instructions[11], the Annual MS4 Status Reports will include the status of O&M activities.

Generally, the activities involved with O&M for each BMP type proposed in the Plan, are in accordance with the PADEP Stormwater BMP Manual (Table 10).

Table 10. Typical O & M Activities included in O & M Agreements and Plans

BMP	O&M Activities
Stream Restoration & Wetland Restoration	Inspection
	Revegetation (replanting, replacement of dead, or impaired vegetation)
	Repairs to streambank armoring structures
	Removal of nuisance aquatic vegetation/ woody debris
Riparian Buffer	Inspection
	Watering
	Mowing/Weed Control
	Invasive Species Removal
Basin Retrofit & Bioretention Basin	Inspection
	Pruning/Weeding
	Cut Down Perennial Planting/ Detritus Removal
	Re-spread Mulch or Replenish Mulch
	Watering

[11] PADEP Document 3800-PM-BCW0100k, PRP Instructions (Rev. 3/2017)

APPENDIX I

Municipal Participants and MS4 Status

York County Regional CBPRP Participants and MS4 Status

Municipality		NPDES Permit No.
Carroll	Township	PAG133548
Chanceford	Township	New*
Conewago	Township	PAG133593*
Dallastown	Borough	PAG133676
Dillsburg	Borough	PAG133560
Dover	Borough	PAG133583*
Dover	Township	PAG133656
Fairview	Township	PAG133557
Felton	Borough	New*
Franklintown	Borough	PAG133691*
Glen Rock	Borough	Non-regulated
Goldsboro	Borough	PAG133665*
Hallam	Borough	PAG133654*
Hanover	Borough	New
Hellam	Township	PAG133589*
Jackson	Township	PAG133671
Jacobus	Borough	PAG133647*
Lewisberry	Borough	PAG133624*
Loganville	Borough	PAG133669*
Lower Windsor	Township	PAG133626*
Manchester	Borough	PAG133586
Manchester	Township	PAG133674
Monaghan	Township	PAG133562
Mount Wolf	Borough	PAG133675
New Salem	Borough	PAG133687*
Newberry	Township	PAG133561
North Hopewell	Township	Non-regulated
North York	Borough	PAG133581
Penn	Township	New
Red Lion	Borough	PAG133651
Spring Garden	Township	PAG133576
Spring Grove	Borough	New
Springettsbury	Township	PAG133594
Springfield	Township	PAG133652
West Manchester	Township	PAG133655
West Manheim	Township	New
West York	Borough	PAG133649
Windsor	Borough	PAG133673
Windsor	Township	PAG133685
Wrightsville	Borough	PAG133685*
Yoe	Borough	PAG133657
York	City	PAG133596
York	County	PAG133650*/**
York	Township	PAG133595
York Haven	Borough	PAG133672*

* Received Permit Waiver from PADEP

** Not on Requirements Table for 2018 Permit

APPENDIX II

Public Participation Documentation

Notice of Public Participation & Public Meeting Notice Published on County Website

PUBLIC NOTICE
YORK COUNTY REGIONAL CHESAPEAKE BAY POLLUTANT REDUCTION PLAN

On behalf of municipalities participating in the York County Regional Chesapeake Bay Pollutant Reduction (CBPRP), the York County Planning Commission will accept **public comments** related to the Plan beginning on **July 19, 2017, and extending through August 18, 2017**. The Regional CBPRP was prepared to meet the requirements of the Municipal Separate Storm Sewer (MS4) permit with the PA Department of Environmental Protection (DEP). It includes an estimate of the baseload of pollutants that are discharged to streams in the planning area; the required pollutant reductions as identified by PA DEP; proposed stormwater improvement projects to achieve the minimum required pollutant reductions; the project sponsors, partners, and probable funding sources; and ongoing operation and maintenance responsibilities for the projects.

The Regional CBPRP will be available for public review Monday through Friday between the hours of 8:00 am and 4:30 pm at the York County Planning Commission (YCPC), located on the third floor of the County Administrative Center, 28 East Market Street, York, PA. The Plan will also be available for public review on the YCPC website www.ycpc.org. Comments must be provided in writing to the attention of Lindsay Gerner, YCPC Senior Planner, at the above address or submitted via email to LGerner@ycpc.org. Comments will also be accepted at a **Public Meeting** to be held at **6:00 pm on August 9, 2017**, at the West Manchester Township Municipal Building, 380 East Berlin Road, York, PA.

The municipalities participating in the Regional CBPRP include the County of York; City of York; Townships of Carroll, Chanceford, Conewago, Dover, East Manchester, Fairview, Heidelberg, Hellam, Jackson, Lower Windsor, Manchester, Monaghan, Newberry, North Hopewell, Penn, Spring Garden, Springettsbury, Springfield, West Manchester, West Manheim, Windsor, and York; and the Boroughs of Dallastown, Dillsburg, Dover, Felton, Franklintown, Glen Rock, Goldsboro, Hallam, Hanover, Jacobus, Lewisberry, Loganville, Manchester, Mount Wolf, New Salem, North York, Railroad, Red Lion, Spring Grove, West York, Windsor, Wrightsville, Yoe, York Haven, and Yorkana.

PA MEDIA GROUP

The Patriot News

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Commonwealth of Pennsylvania,) ss
County of Cumberland)

Dwayne Connor being duly sworn, deposes that he/she is principal clerk of PA Media Group; that The Patriot News is a public newspaper published in the city of Mechanicsburg, with general circulation in Cumberland and Dauphin and surrounding counties, and this notice is an accurate and true copy of this notice as printed in said newspaper, was printed and published in the regular edition and issue of said newspaper on the following date(s):

The Patriot News 07/18/2017

Principal Clerk of the Publisher

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Crystal B. Rosensteel, Notary Public
Susquehanna Twp., Dauphin County
My Commission Expires June 27, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Sworn to and subscribed before me this 18th day of July 2017

Notary Public

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YORK COUNTY REGIONAL
CHESAPEAKE BAY POLLUTANT
REDUCTION PLAN

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REGIONAL CBPRP PUBLIC MEETING
AUGUST 9, 2017
COMMENTS RECEIVED & RESPONSES PROVIDED

1. Alan Vanderslott (West York Borough) – Regarding the map of participants, how is who's in and who's out determined? For example, why isn't Peach Bottom Township a participant?

   Response: Although the Regional CBPRP is a requirement for MS4 Permit holders, all 72 municipalities were invited to participate. PA DEP designates municipalities located wholly or partially within a 2010 urbanized area (UA), as designated by the US Census Bureau, as MS4s. Peach Bottom Township does not include any urbanized area. The majority of participants are MS4s. Outside the UA, there are requirements related to agriculture, but those requirements are on farmers, not municipalities. Farmers are required to prepare and implement conservation plans to reduce pollutants and improve water quality.

2. Alan Vanderslott (West York Borough) – Are there any regulations on businesses?

   Response: They must comply with local stormwater management ordinances, which include water quality requirements.

3. Gary Milbrand (York Township) – Add page numbers to the Table of Contents.

   Response: Page numbers will be added when the Plan is finalized.

4. Gary Milbrand (York Township) – The location coordinates for Project #22 in York Township are incorrect.

   Response: The correct latitude is 39.957922 and the longitude is -76.664798.

5. Gary Milbrand (York Township) – In Appendix IX, Attachment A of the Intergovernmental Cooperation Agreement lists municipal contributions. What happens if more money than needed to meet the 10% sediment is collected OR if an insufficient amount is collected?

   Response: The Agreement contains provisions to address both situations. It allows for the contribution amounts to be decreased if the Consortium is on track to meet the pollutant reduction requirements ahead of schedule and to be increased if additional funding is necessary to avoid a Permit violation. Any decreases or increases would be based on the funding formula.

6. Alan Vanderslott (West York Borough) – York County appears to be unique in its regional approach. I am thankful for the County's effort.

   Response: The regional approach has worked well over the past 3 years and has proven to be cost effective and efficient.

7. Monica Love (West Manchester Township) – It would be beneficial to have more private entities as partners. Could the County help frame the ask for municipalities to approach private entities, such as industrial permittees, to become a partner? They could be approached to update basins or retrofit/construct other low hanging fruit BMPs.

   Response: The York County Planning Commission would be willing to assist municipalities. Increasing the number of partners could reduce the cost burden on municipalities. If PA DEP imposed stormwater requirements on industrial permittees, it would be an incentive for them to partner.

REGIONAL CBPRP
WRITTEN PUBLIC COMMENTS
(Submitted during Public Comment Period: July 19, 2017, through August 18, 2017)

Commenter(s) identified that pollutant baseload calculations did not include the Plan's entire Planning Area acreage. It was pointed out that the PRP Instructions (Appendix B) accounted for 50,706 acres of developed York County. This developed land for York County was used to calculate the entire Planning Area's baseload, ignoring approximately 85,000 additional acres of undeveloped land in the Planning Area's baseload calculations. As a result, it was stated that an erroneously low baseload was calculated for the entire Planning Area.

Response: In 2013, York County MS4 municipalities developed the York County Regional Chesapeake Bay Pollutant Reduction Plan to meet the MS4 Permit requirement. It proved to be a more cost effective and efficient approach to implement BMPs to achieve water quality improvement. Thus, in order to meet increased requirements of the 2018 MS4 permit, York County immediately undertook the development of a Regional Chesapeake Bay Pollutant Reduction Plan upon PAG-13 finalization.

May 2016 - PA DEP released the 2018 MS4 Permit requirements. They were reviewed by York County to determine whether a multi-municipal approach was still feasible. After consultation with PA DEP, it was determined that a multi-municipal approach could be accomplished. The PRP instructions included Developed Land Loading Rates /Urbanized Pervious and Impervious Acreages in the Chesapeake Bay Watershed for PA Counties (Attachment B). However, due to the amount of coordination and communication required to facilitate a plan with 51 potential municipal participants, the process had to commence very quickly.

Summer/Fall, 2016 – PA DEP conducted training on the new MS4 permit requirements, including completing and submitting the NOI and preparation of PRP and TMDL plans.

August 2016 – York County municipalities were provided information about the new PRP requirements and how a multi-municipal approach could be accomplished. The feasibility, reduction requirements, rough costs of the multi-municipal approach were estimated based on the Developed Land Loading Rates and Acreages in the PRP instructions.

September through November 2016 – Municipalities were asked to decide whether they wanted to participate in the multi-municipal plan development based on the above estimates.

September through December, 2016 - Municipalities gathered information on completed BMP projects that could be used as credit toward reducing the regional baseload estimated by calculating loading rates and acreages from Attachment B of the PRP Instructions published with the final MS4 Permit. Municipalities generated a list of carryover projects, as well as new projects, including preliminary cost estimates, to be considered for the 2018 CBPRP.

January 2017 – PA DEP released Statewide MS4 Land Cover Estimates. After reviewing this information, the discrepancy between the Developed Land Loading Rates/Acreages and the new information was discovered.

February 2017 – York County met with PA DEP to discuss options on how to proceed given that the municipalities committed to a regional approach based on the numbers in the PRP instructions. Our understanding (since BMPs were efficiency based and DEP stated baseload calculations would not impact number of BMPs required to reduce pollutant load by 10%) was that we could proceed with a baseload for the Regional Plan development based on the Developed Land Loading Rates/Acreages in the PRP instructions. However, we would only propose projects on impaired stream reaches and stream restoration projects would be calculated at a delivered to the Bay rate of 45#/foot as opposed to the 115#/foot edge of stream rate provided in BayFAST.

Cost scenarios were refined with the municipalities.

March through May 2017 – Project lists were finalized, a funding proposal was finalized, the intergovernmental cooperation agreement was drafted and the draft plan was prepared.

June and July 2017 – The intergovernmental cooperation agreement was edited and finalized with the municipal solicitors and municipalities began the ordinance advertisement and adoption process.

To date:

- 48 municipalities are participating and contributing $13 million over 5 years to leverage other funding and in-kind services to construct 32 local projects and 13 regional projects for a total of 45 BMPs in York County (which include approximately 10 miles of urban stream restoration);

- Partnerships with non-municipal MS4s and industrial permittees (PennDOT, DoD, and Kinsley Construction) have been developed to implement BMP projects that are not included in the calculated reductions.

We believe that due to the timing of the release of information, we have drafted a plan that will achieve the necessary sediment reductions and water quality improvements. Despite the other constraints imposed on our plan (conservative pollutant reduction value for stream restoration projects, limiting projects to impaired streams only, and not including other partner projects), we will meet **or** exceed the sediment reduction goals of the larger acreage planning area.

However, in order to reconcile the discrepancy in the planning area and baseload calculation acreage numbers, York County proposes that within the first 18 months after plan submission, the plan will be revised to reflect the final municipal participants. The Planning Area and the Base Pollutant Loading numbers will be reconciled using BayFAST modeling software utilizing acreages and loading rates delivered to the edge of stream and, at a minimum, a reduction of 115#/foot for stream restoration projects. In addition, stream restoration projects will be evaluated/designed using the expert panel protocol, which may yield a greater pollutant reduction rate than 115#/foot. Further, there are numerous completed stream restoration projects in York County that have documented sediment reduction values on average of 200#/foot or more using such protocol (see Estimating Volume, Nutrient Content, and Rates of Stream Bank Erosion of Legacy Sediment in the Piedmont Valley and Ridge Physiographic Provinces, Southeastern and

Central PA: A report to the Pennsylvania Department of Environmental Protection, submitted January, 2007 and revised September 13, 2007 by Robert Walter, Ph. D., Dorothy Merritts, Ph. D., and Mike Rahnis, M.Sc. and the Codorus Creek Watershed Assessment Reports erosion rate data attached).

Commenter(s) requested that an explanation be provided for the different sets of information for the "Proposed BMP Summary Sheets" in the electronic version of the plan available for review on the York County Planning Commission website.

Response: Several uncompleted projects from the 2013 CBPRP were carried over and included in the 2018 CBPRP. The black text is information from the project summary sheets generated for the 2013 Plan. The red text reflects updated project information utilizing the BayFAST reporting tool and BayFAST modeling runs. All project summary sheets have been updated to the same format based on the BayFAST project-reporting tool and BayFAST modeling runs.

Commenter(s) noted that a BMP Implementation Schedule was missing from the plan.

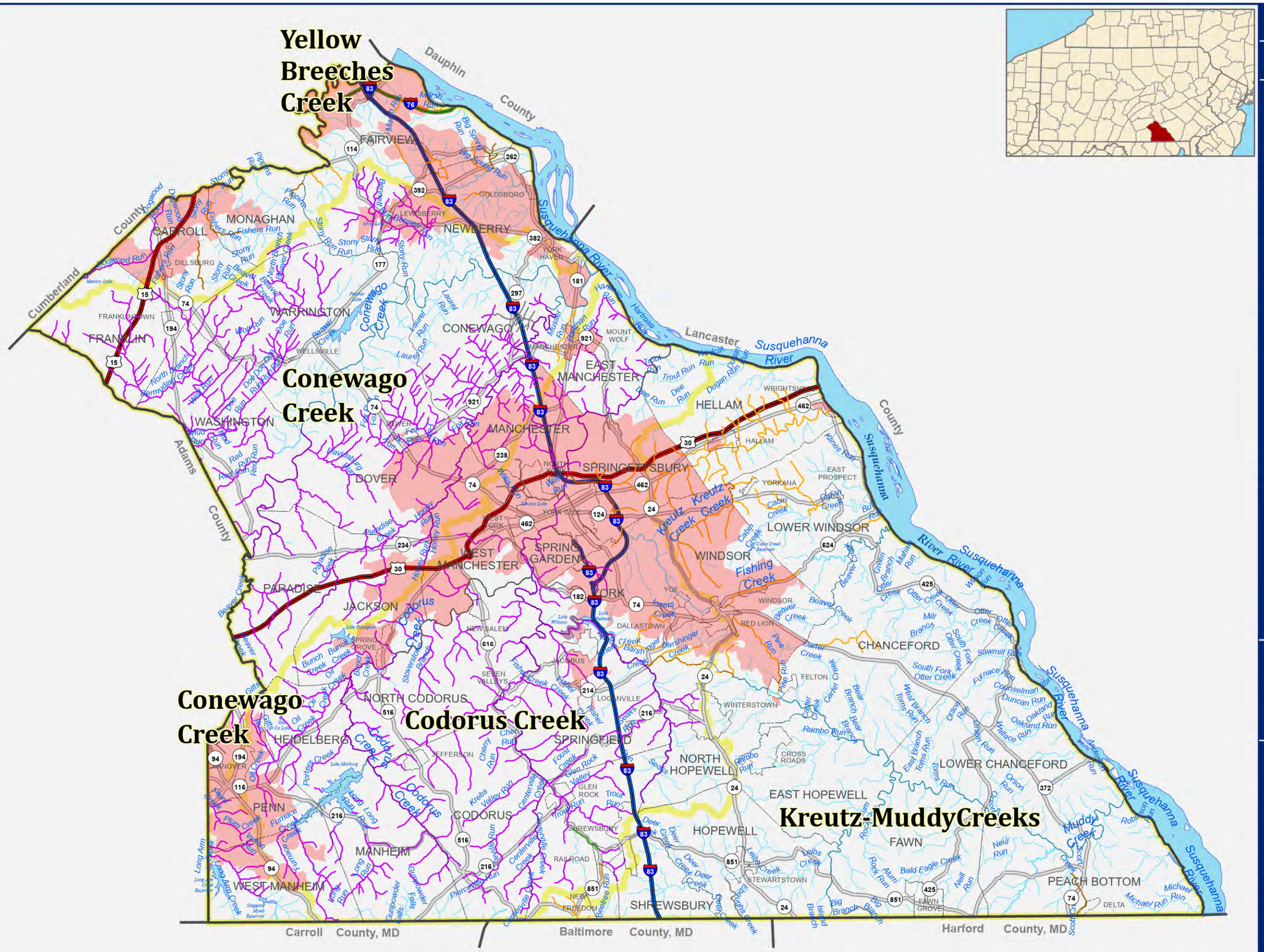
Response: An Implementation Schedule has been developed and included in Appendix VII of the final submission of the Plan.

Commenter(s) noted that plan is very detailed, need to clean up the bay for future generation to enjoy, know that the bay is cleaner but needs to improve, one recommendation is to have farmers keep cows out of the streams that run through farms, also ask the public to work with leaders of these projects to reduce labor cost, thanks.

Response: Comment not applicable to current Regional CBPRP effort due to Sector Strategy for stormwater management and cleaning up the Bay.

APPENDIX III

Planning Area Maps



York County Planning Commission

York County Stormwater Consortium

York County Regional CBPRP Planning Area Map

Legend

- York County Planning Area
- Lakes and Susquehanna River
- Large Watersheds

Impaired Stream Causes

- Sediments
- Nutrients
- Nutrients and Sediments
- Pathogens
- Other

Date Created: 8/29/2019

1:250,000

0 0.5 1 2 3 4
Miles

Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,968,500.0000
False Northing: 0.0000
Central Meridian: -77.7500
Standard Parallel 1: 39.9333
Standard Parallel 2: 40.9667
Latitude Of Origin: 39.3333
Units: Foot US

YORK COUNTY YCPC PLANNING COMMISSION

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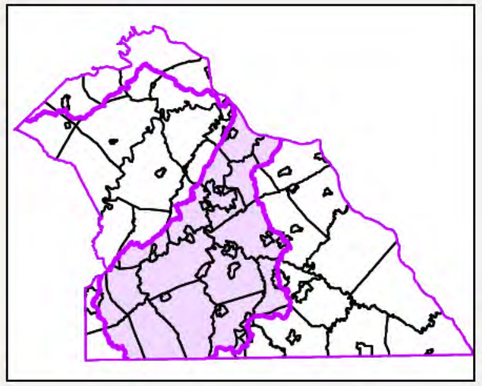

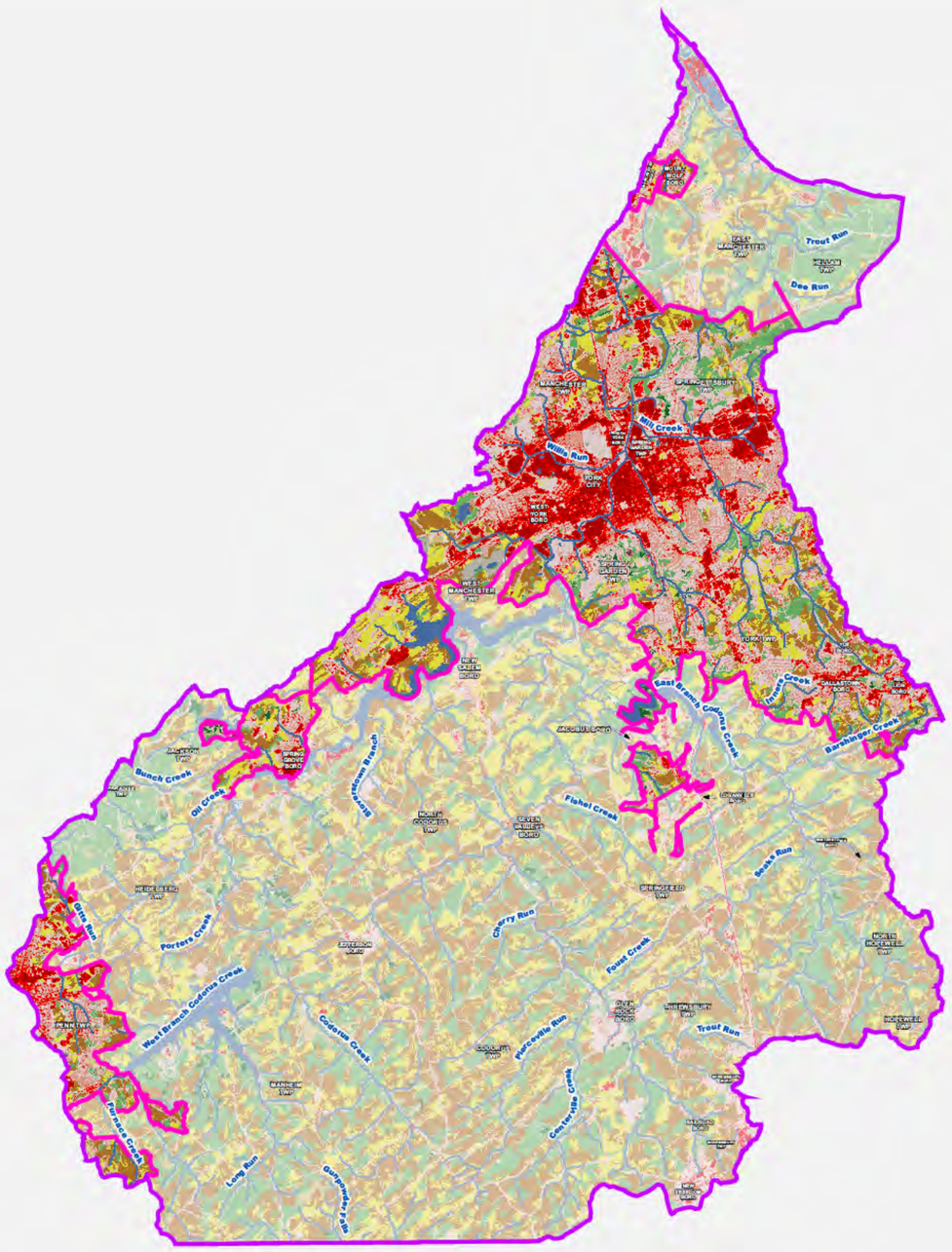

York County Planning Commission

York County Regional CBPRP
Land Use Map
Codorus Creek Watershed
York County, Pennsylvania

Legend

- Watershed Boundary
- Municipal Boundary
- Planning Area
- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land (Rock/Sand/Clay)
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

Date Saved: 11/18/2019

1 inch=17,212 feet

0 0.5 1 2 3 4
Miles

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Coordinate System: NAD 1983 StatePlane Pennsylvania South F PS 3702 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,968,500.0000
False Northing: 0 0000
Central Meridian: -77.7500
Standard Parallel 1: 39 9333
Standard Parallel 2: 40 9667
Latitude Of Origin: 39.3333
Units: Foot US

YORK COUNTY YCPC PLANNING COMMISSION
www.ycpc.org

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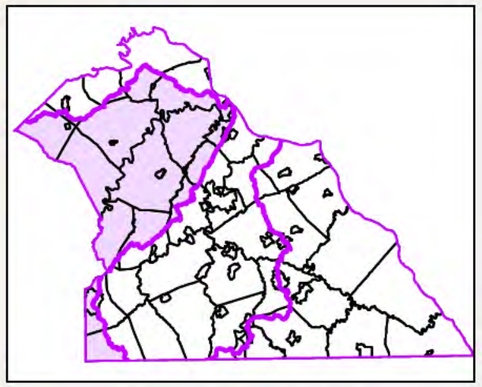

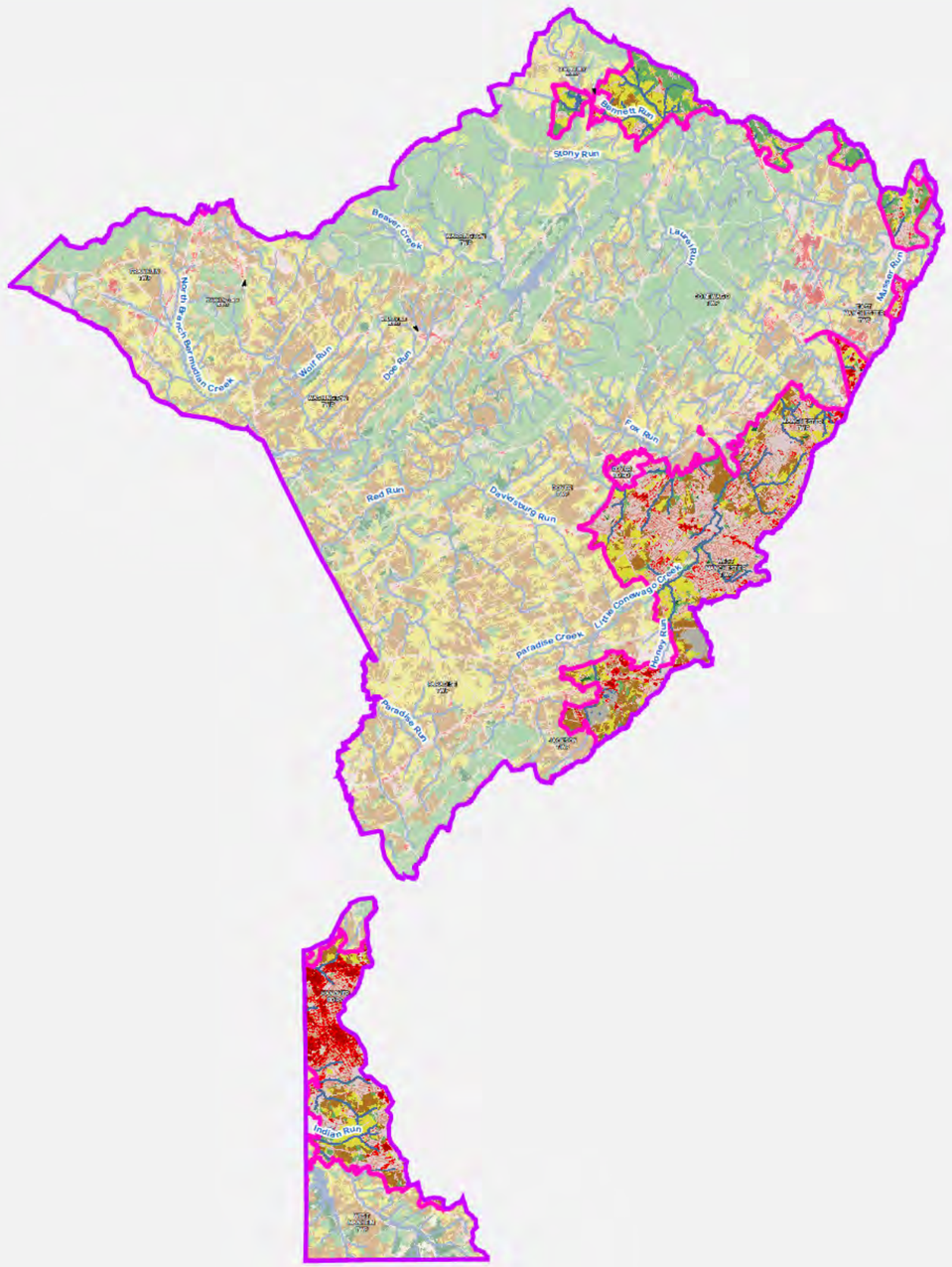

York County Planning Commission

York County Regional CBPRP
Land Use Map
Conewago Creek Watershed
York County, Pennsylvania

Legend

- Watershed Boundary
- Municipal Boundary
- Planning Area
- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land (Rock/Sand/Clay)
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

Date Saved: 11/18/2019

1 inch=19,649 feet

0 0.5 1 2 3 4
Miles

Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
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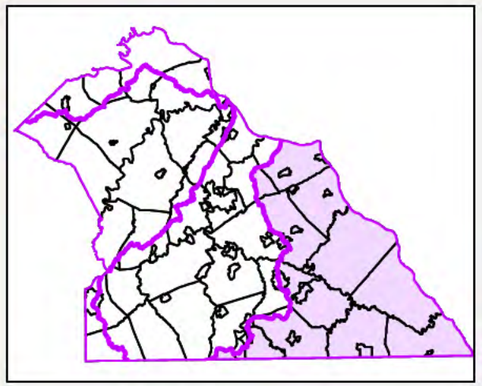

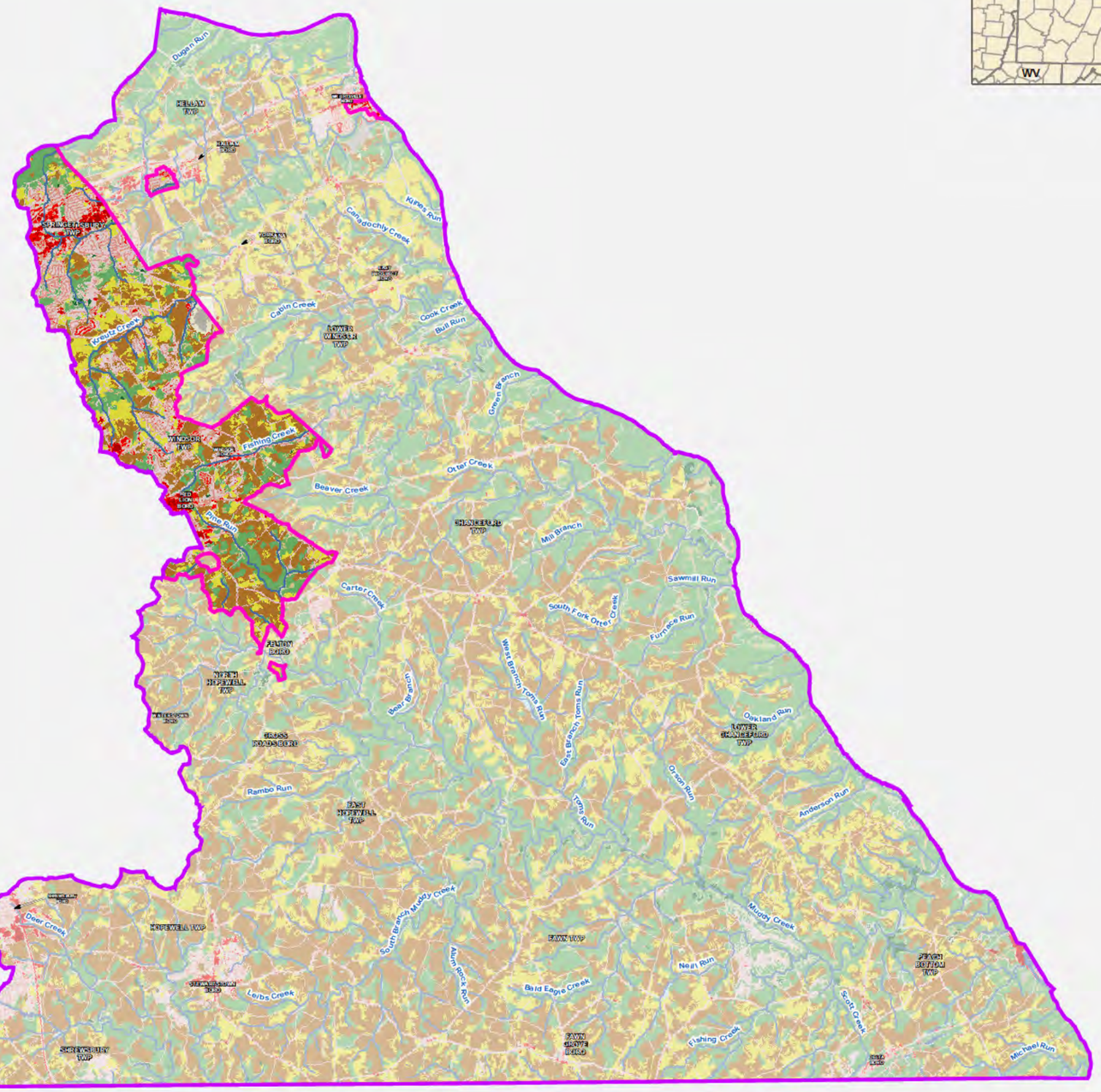

York County Planning Commission

York County Regional CBPRP
Land Use Map
Kreutz-Muddy Creek Watershed
York County, Pennsylvania

Legend

- Watershed Boundary
- Municipal Boundary
- Planning Area
- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land (Rock/Sand/Clay)
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

Date Saved: 11/18/2019

1 inch=14,609 feet

0 0.5 1 2 3 4
Miles

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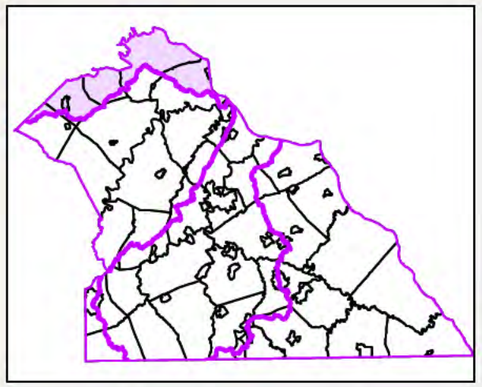

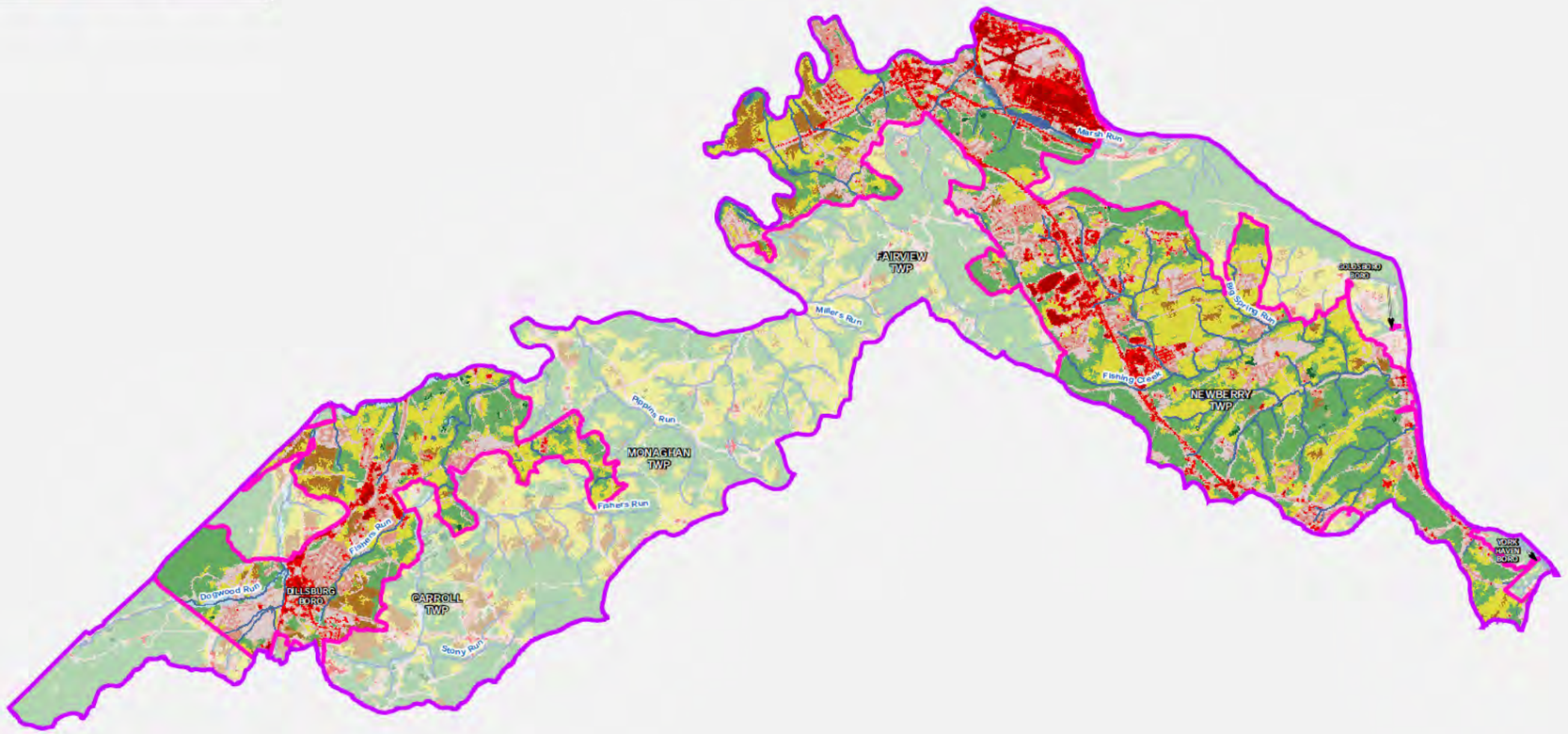

York County Planning Commission

York County Regional CBPRP
Land Use Map
Yellow Breeches Creek Watershed
York County, Pennsylvania

Legend

- Watershed Boundary
- Municipal Boundary
- Planning Area
- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land (Rock/Sand/Clay)
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

Date Saved: 11/18/2019

1 inch=10,361 feet

0 0.325 0.65 1.3 1.95 2.6
Miles

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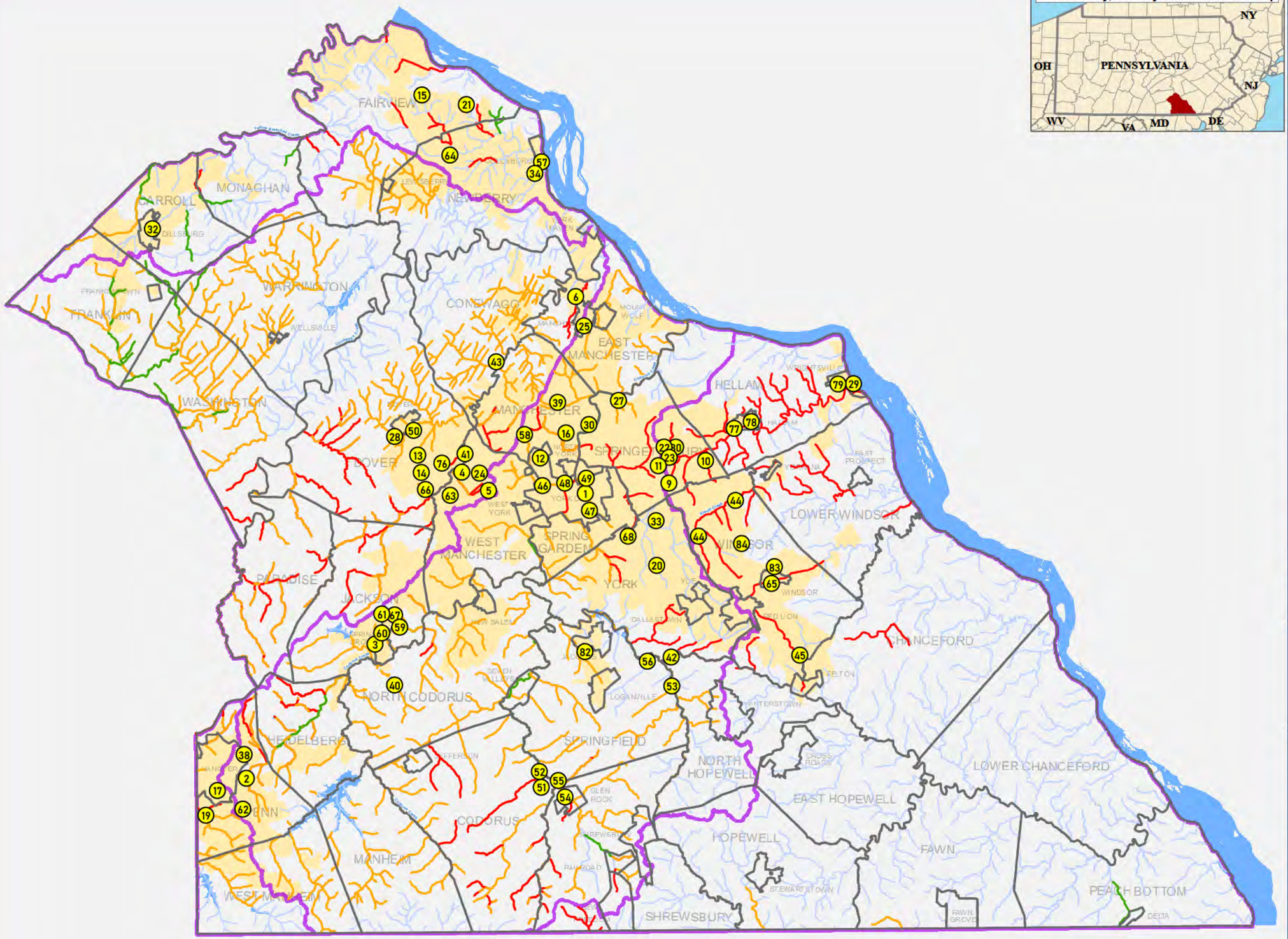

York County Planning Commission

York County Stormwater Consortium

York County Regional CBPRP Planning Area Map Planned BMP Locations

Legend

- CBPRP Projects
- Municipal Boundary
- Non-Impaired Stream
- Watershed Boundary
- Planning Area
- Lakes and Susquehanna River

Integrated List Non-Attaining Stream

- Nutrient Impaired Streams
- Sediments Impaired Streams
- Other Impaired Streams

Date Updated: 9/21/2020 By: jtrimmer

1 inch=19,500 feet

0 0.5 1 2 3 4
Miles

Disclaimer:
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APPENDIX IV

Municipal MS4 Requirements
&
Pollutants of Concern

Municipal MS4 Requirements & Pollutants of Concern

(* Received Permit Waiver from PADEP)

Municipality	MS4 Permit Required?	Impaired Downstream Waters	Requirement(s)
Carroll Township	Yes	Chesapeake Bay Nutrients\Sediment, Dogwood Run, Fishers Run, Stony Run	Appendix D-Siltation\Nutrients, Appendix E-Organic Enrichment/Low D.O., Siltation, Suspended Solids
Chanceford Township	Yes*	Chesapeake Bay Nutrients\Sediment, Pine Run	Appendix D-Siltation\Nutrients, Appendix E-Siltation
Conewago Township	Yes*	Chesapeake Bay Nutrients\Sediment	Appendix D-Siltation\Nutrients
Dallastown Borough	Yes	Chesapeake Bay Nutrients\Sediment, East Branch Codorus Creek, South Branch Codorus Creek, Barshinger Creek, Mill Creek	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Siltation, Suspended Solids
Dillsburg Borough	Yes	Chesapeake Bay Nutrients\Sediment, Dogwood Run, Stony Run	Appendix D-Siltation\Nutrients, Appendix E-Organic Enrichment/Low D.O., Siltation, Suspended Solids
Dover Borough	Yes*	Chesapeake Bay Nutrients\Sediment	Appendix D-Siltation\Nutrients
Dover Township	Yes	Chesapeake Bay Nutrients\Sediment, Honey Run, Little Conewago Creek	Appendix D-Siltation\Nutrients, Appendix E-Siltation
Fairview Township	Yes	Chesapeake Bay Nutrients\Sediment, Unnamed Tributaries to Yellow Breeches Creek, Yellow Breeches Creek, Big Spring Run, Fishing Creek, Marsh Run, Susquehanna River, Unnamed Tributaries to Fishing Creek	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Siltation
Felton Borough	Yes*	Chesapeake Bay Nutrients\ Sediment; Pine Run - Siltation	Appendix D-Siltation\Nutrients, Appendix E-Siltation
Franklintown Borough	Yes*	Chesapeake Bay Nutrients\Sediment, North Branch Bermudian Creek, Unnamed Tributaries to North Branch Bermudian Creek	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Siltation
Glen Rock Borough	No	n/a	
Goldsboro Borough	Yes*	Chesapeake Bay Nutrients\Sediment, Susquehanna River	Appendix D-Siltation\Nutrients
Hallam Borough	Yes*	Chesapeake Bay Nutrients\Sediment, Susquehanna River	Appendix D-Siltation\Nutrients
Hanover Borough	Yes	Chesapeake Bay Nutrients\Sediment, Plum Creek, South Branch Conewago Creek	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Siltation
Hellam Township	Yes*	Chesapeake Bay Nutrients\Sediment, Susquehanna River	Appendix D-Siltation\Nutrients
Jackson Township	Yes	Chesapeake Bay Nutrients\Sediment, Little Conewago Creek, Codorus Creek, Unnamed Tributaries to Codorus Creek,	Appendix D-Siltation\Nutrients, Appendix E-Excessive Algal Growth, Suspended Solids
Jacobus Borough	Yes*	Chesapeake Bay Nutrients\Sediment, Codorus Creek, East Branch Codorus Creek, South Branch Codorus Creek	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Siltation, Suspended Solids

Municipality	MS4 Permit Required?	Impaired Downstream Waters	Requirement(s)
Lewisberry Borough	Yes*	Chesapeake Bay Nutrients\Sediment, Bennet Run	Appendix D-Siltation\Nutrients, Appendix E-Siltation
Loganville Borough	Yes*	Chesapeake Bay Nutrients\Sediment, East Branch Codorus Creek, South Branch Codorus Creek	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Suspended Solids
Lower Windsor Township	Yes*	Chesapeake Bay Nutrients\Sediment, Fishing Creek, Susquehanna River	Appendix D-Siltation\Nutrients, Appendix E-Siltation
Manchester Borough	Yes	Chesapeake Bay Nutrients\Sediment, Musser Run	Appendix D-Siltation\Nutrients, Appendix E-Suspended Solids
Manchester Township	Yes	Chesapeake Bay Nutrients\Sediment, Little Conewago Creek, Codorus Creek, Unnamed Tributaries to Codorus Creek	Appendix D-Siltation\Nutrients, Appendix E-Excessive Algal Growth, Siltation
Monaghan Township	Yes	Chesapeake Bay Nutrients\Sediment, Fishers Run, Stony Run	Appendix D-Siltation\Nutrients, Appendix E-Organic Enrichment/Low D.O., Siltation
Mount Wolf Borough	Yes	Chesapeake Bay Nutrients\Sediment	Appendix D-Siltation\Nutrients
New Salem Borough	Yes*	Chesapeake Bay Nutrients\Sediment, Codorus Creek	Appendix D-Siltation\Nutrients, Appendix E-Siltation
Newberry Township	Yes	Big Spring Run, Chesapeake Bay Nutrients\Sediment, Susquehanna River, Unnamed Tributaries to Fishing Creek, Bennett Run	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Siltation
North York Borough	Yes	Chesapeake Bay Nutrients\Sediment, Codorus Creek	Appendix D-Siltation\Nutrients, Appendix E-Excessive Algal Growth, Siltation
Penn Township	Yes	Chesapeake Bay Nutrients\Sediment, Plum Creek, South Branch Conewago Creek, Gitts Run, Oil Creek	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Siltation
Railroad Borough	No	n/a	
Red Lion Borough	Yes	Chesapeake Bay Nutrients\ Sediment, East Branch Codorus Creek, Mill Creek, Pine Run, Fishing Creek	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Siltation
Spring Garden Township	Yes	Chesapeake Bay Nutrients\Sediment, Codorus Creek, Mill Creek	Appendix D-Siltation\Nutrients, Appendix E-Excessive Algal Growth, Siltation
Spring Grove Borough	Yes	Chesapeake Bay Nutrients\Sediment	Appendix D-Siltation\Nutrients
Springettsbury Township	Yes	Chesapeake Bay Nutrients\Sediment, Susquehanna River, Unnamed Tributaries to Kreutz Creek, Codorus Creek, Mill Creek	Appendix D-Siltation\Nutrients, Appendix E-Excessive Algal Growth, Siltation
Springfield Township	Yes	Chesapeake Bay Nutrients\Sediment, East Branch Codorus Creek, South Branch Codorus Creek	Appendix D-Siltation\Nutrients, Appendix E-Nutrients, Siltation, Suspended Solids

Municipality	MS4 Permit Required?	Impaired Downstream Waters	Requirement(s)
West Manchester Township	Yes	Chesapeake Bay Nutrients\Sediment, Honey Run, Little Conewago Creek, Codorus Creek	Appendix D-Siltation\Nutrients, Appendix E-Excessive Algal Growth, Siltation
West Manheim Township	Yes	Chesapeake Bay Nutrients\Sediment, South Branch Conewago Creek	Appendix D-Siltation\Nutrients, Appendix E-Siltation
West York Borough	Yes	Chesapeake Bay Nutrients\Sediment, Codorus Creek	Appendix D-Siltation\Nutrients, Appendix E-Excessive Algal Growth, Siltation
Windsor Borough	Yes	Chesapeake Bay Nutrients\Sediment, Fishing Creek	Appendix D-Siltation\Nutrients, Appendix E-Siltation
Windsor Township	Yes	Chesapeake Bay Nutrients\Sediment, Fishing Creek, Susquehanna River, Unnamed Tributaries to Kreutz Creek, North Branch Muddy Creek, Pine Run	Appendix D-Siltation\Nutrients, Appendix E-Siltation
Wrightsville Borough	Yes*	Chesapeake Bay Nutrients\Sediment, Susquehanna River	Appendix D-Siltation\Nutrients
Yoe Borough	Yes	Chesapeake Bay Nutrients\Sediment, Mill Creek	Appendix D-Siltation\Nutrients, Appendix E-Siltation
York City	Yes	Chesapeake Bay Nutrients\Sediment, Codorus Creek, Mill Creek	Appendix D-Siltation\Nutrients, Appendix E-Excessive Algal Growth, Siltation
York County	Yes*	n/a	n/a
York Township	Yes	Barshinger Creek, Chesapeake Bay Nutrients\Sediment, East Branch Codorus Creek, Inners Creek, South Branch Codorus Creek, Codorus Creek, Mill Creek	Appendix D-Siltation\Nutrients, Appendix E-Excessive Algal Growth, Nutrients, Siltation, Suspended Solids
York Haven Borough	Yes*	Chesapeake Bay Nutrients \Sediment	Appendix D-Siltation\Nutrients

APPENDIX V

Existing Pollutant Loading Calculations

To Reduce Baseload

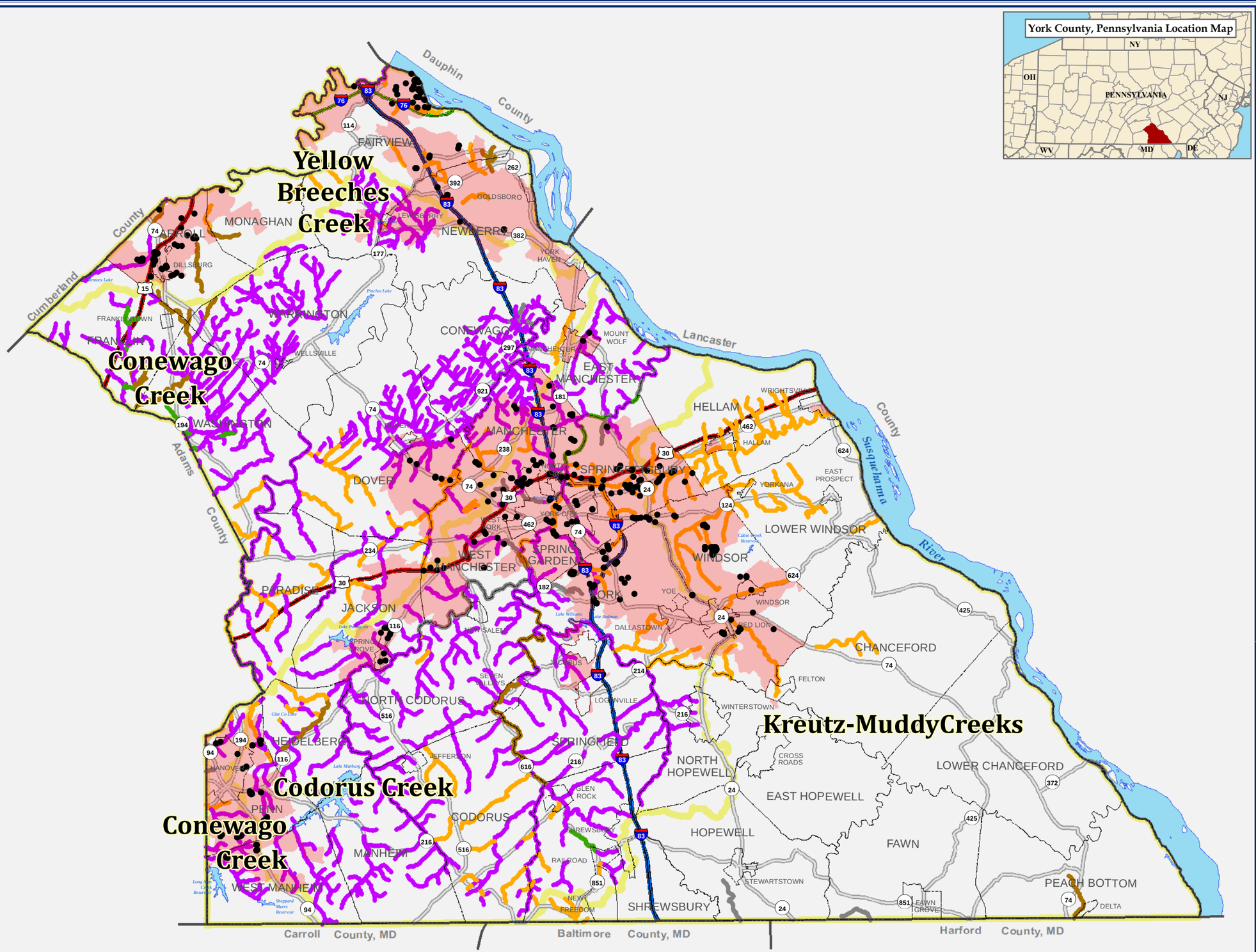
Updated Baseline Reduction for Installed BMPs (Summary Table) February 2020

Reductions Calculated Using the DEP BMP Effectiveness Values & Simplified Method

Permittee	BMP Type	Drainage Area (acres)		Total Area		Total BMP Pollutant Load Reduction TSS (lbs/yr)	Total Municipal Pollutant Load Reduction TSS (lbs/yr)
		Impervious	Pervious	Acres	Ln Ft		
Carroll Twp.	Infiltration Practices w/Sand, Veg	9.31	38.69			22,377.26	
	Filtering Practices	0.28	0.00			361.57	
	Bioretention/Raingarden (AB soils w/o UD)	0.44	0.00			639.20	
	Bioswale	0.12	1.80			472.33	
	Tree Planting	0.32	2.32			205.57	24,056
Dillsburg Boro	Dry Extended Detention Basin	1.85	0.38			1,841.96	
	Infiltration Practices w/Sand, Veg	1.78	1.16			2,972.41	
	Filtering Practices	0.81	0.24			1,088.29	
	Bioretention/Raingarden (AB soils w/o UD)	0.10	0.30			204.78	
	Bioswale	0.00	0.13			22.92	
	Permeable Pavement w/Sand or Veg (AB soils w/UD)	2.48	0.78			2,922.50	
	Tree Planting	0.00	1.00			44.08	9,097
Dover Twp.	Dry Extended Detention Basin	4.01	1.69			4,107.13	
	Infiltration Practices w/Sand, Veg	0.74	0.00			1,134.75	
	Bioretention/Raingarden (CD soils w/UD)	0.89	0.67			871.34	
	Bioswale	0.25	0.13			345.75	6,459
Fairview Twp.	Infiltration Practices w/Sand, Veg	12.80	25.62			24,992.38	24,992
Hanover Boro	Wet Ponds and Wetlands	7.71	7.71	0.25		8,486.63	
	Dry Extended Detention Basin	3.71	5.15			4,274.13	
	Infiltration Practices w/Sand, Veg	26.81	70.73			55,921.04	68,682
Manchester Twp.	Dry Extended Detention Basin	20.03	75.04			29,322.14	
	Infiltration Practices w/Sand, Veg	10.35	4.29			16,769.37	
	Filtering Practices	4.69	1.95			6,400.11	
	Bioretention/Raingarden (AB soils w/o UD)	0.12	0.07			188.21	
	Bioswale	2.02	1.23			2,825.34	55,505
Monaghan Twp.	Dry Extended Detention Basin	0.13	0.08			136.48	
	Infiltration Practices w/Sand, Veg	3.54	2.88			6,031.40	
	Bioretention/Raingarden (AB soils w/o UD)	0.59	0.50			956.29	
	Bioswale	0.21	0.57			371.68	
	Permeable Pavement w/Sand or Veg (CD soilsw/UD)	0.29	0.06			264.73	7,761
Mount Wolf Boro	Stream Restoration				235	10,546.80	
	Wet Pond and Wetlands	0.35	0.05			345.58	10,892

Permittee	BMP Type	Drainage Area (acres)		Total Area		Total BMP Pollutant Load Reduction TSS (lbs/yr)	Total Municipal Pollutant Load Reduction TSS (lbs/yr)
		Impervious	Pervious	Acres	Ln Ft		
Newberry Twp.	Wet Ponds and Wetlands	24.29	8.60			24,661.89	
	Dry Extended Detention Basin	1.17	3.13			1,547.04	
	Infiltration Practices w/Sand, Veg	3.30	19.75			9,195.62	
	Filtering Practices	4.60	0.00			5,940.07	
	Bioretention/Raingarden (AB soils w/o UD)	1.50	1.49			2,474.66	
	Bioswale	0.90	1.40			1,409.04	
	Tree Planting	0.00	0.80			35.26	45,264
Penn Twp.	Dry Extended Detention Basin	2.20	6.71			3,018.01	
	Infiltration Practices w/Sand, Veg	14.24	17.07			25,410.34	
	Filtering Practices	4.90	28.27			11,312.03	
	Bioretention/Raingarden (AB soils w/o UD)	1.26	0.30			1,889.95	
	Bioswale	1.79	0.70			2,434.89	
	Forest Buffers	2.20	7.30	2.45		2,580.03	
	Tree Planting	0.00	1.30	3.60		57.30	
	Street Sweeping	4.40	0.00			639.20	47,342
Spring Grove Boro	Wet Ponds and Wetlands	0.75	6.36			1,567.41	
	Dry Extended Detention Basin	15.40	84.90			26,141.92	
	Infiltration Practices w/Sand, Veg	0.15	0.00			230.02	
	Filtering Practices	0.85	6.25			2,199.62	
	Bioswale	2.95	9.59			5,500.30	35,639
Springettsbury Twp.	Dry Extended Detention Basin	47.52	44.88			51,957.58	
	Infiltration Practices w/Sand, Veg	40.06	28.76			67,451.48	
	Filtering Practices	7.97	6.49			11,436.14	
	Bioretention/Raingarden (AB soils w/o UD)	44.87	28.42			70,821.61	
	Bioswale	0.38	2.88			998.50	202,665
West Manchester Twp.	Infiltration Practices w/Sand, Veg	67.18	35.78			110,508.28	
	Bioretention/Raingarden (AB soils w/o UD)	11.60	30.11			22,824.35	
	Permeable Pavement w/Sand or Veg(A/B soilsw/UD)	2.66	1.94			3,304.85	136,638
West Manheim Twp.	Infiltration Practices w/Sand, Veg	8.73	15.89			16,714.00	
	Permeable Pavement w/Sand or Veg (A/B soils B29w/o UD)	0.09	0.00			123.48	16,837
Windsor Boro	Stream Restoration	187.20	576.31		500	22,400.00	22,400

Permittee	BMP Type	Drainage Area (acres)		Total Area		Total BMP Pollutant Load Reduction TSS (lbs/yr)	Total Municipal Pollutant Load Reduction TSS (lbs/yr)
		Impervious	Pervious	Acres	Ln Ft		
Windsor Twp.	Infiltration Practices w/Sand, Veg	13.78	26.96			26,775.72	
	Bioretention/Raingarden (AB soils w/o UD)	0.67	0.14			1,001.10	27,777
York City	Wet Ponds and Wetlands	4.87	2.76			5,081.53	
	Dry Extended Detention Basin	46.63	35.20			49,815.54	
	Infiltration Practices w/Sand, Veg	2.98	1.70			4,925.60	
	Filtering Practices	7.98	4.35			11,071.73	
	Bioretention/Raingarden (AB soils w/o UD)	2.61	1.82			4,152.65	
	Street Sweeping	1.79	0.00			260.04	75,307
York County	Bioswale	10.80	6.29			15,055.31	15,055
York Twp.	Dry Extended Detention Basin	14.65	20.22			16,862.27	
	Infiltration Practices w/Sand, Veg	15.46	19.50			27,789.93	
	Filtering Practices	10.70	10.41			15,652.62	
	Filter Strip Stormwater Treatment	0.00	1.23			59.64	
	Bioretention/Raingarden (C/D soils w/UD)	2.38	3.23			2,504.46	
	Bioswale	4.46	1.62			6,044.93	
	Riparian Forest Buffer	2.86	27.69	11.69		5,359.67	74,274
Defense Distribution Center, Susquehanna	Wet Pond and Wetlands	1.20	0.80			1,267.98	
	Dry Detention Basins	0.50	0.00			80.71	
	Dry extended Detention Basins	20.60	11.20			21,431.98	
	Infiltration Practices w/Sand, Veg	5.90	4.10			2,356.20	
	Filtering Practices	2.20	0.40			2,911.43	
	Bioretention/Raingarden (A/B soils w/UD)	0.60	1.20			986.38	
	Bioretention/Raingarden (A/B soils w/o UD)	5.10	4.70			8,341.24	
	Vegetated Open Channel (A/B soils)	7.60	10.10			10,145.51	
	Bioswale	0.10	0.40			199.66	
	Stream Restoration				600	26,928.00	
	Tree Planting	0.00	1.70			224.81	74,874
PennDOT	Dry Extended Detention Basin	11.38	18.66			13,489.01	
	Infiltration Practices w/Sand, Veg	12.70	62.83			32,630.07	
	Bioretention/Raingarden (A/B soils w/o UD)	1.95	5.51			3,925.80	
	Vegetated Open Channels (A/B soils)	2.19	10.70			4,125.29	54,170
						Total Reduction	**1,035,686**



York County Planning Commission

York County Stormwater Consortium

York County Regional CBPRP Constructed BMPs

Legend

- BMP Locations
- York County Planning Area
- Lakes and Susquehanna River
- Large Watersheds

Impaired Stream Causes

- Sediments
- Nutrients
- Nutrients and Sediments
- Pathogens
- Other

Date Created: 8/29/2019

1 inch=20,833 feet

0 0.5 1 2 3 4
Miles

Disclaimer:
The York County Planning Commission provides this Geographic Information System map and/or data (collectively the "Data") as a public information service. The Data is not a legally recorded plan, survey, official tax map, or engineering schematic and should be used for only general information. Reasonable effort has been made to ensure that the Data is correct; however the Commission does not guarantee its accuracy, completeness, or timeliness. The Commission shall not be liable for any damages that may arise from the use of the Data."

Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 1,968,500.0000
False Northing: 0.0000
Central Meridian: -77.7500
Standard Parallel 1: 39.9333
Standard Parallel 2: 40.9667
Latitude Of Origin: 39.3333
Units: Foot US

www.ycpc.org

Path: O:\IS\MapRequests\Planners\Pam\Constructed_BMPs\BMP_Locations_Temp

CARROLL TOWNSHIP			Best contact person/number if questions about BMP: Brandon Slatt (717)432-4951										Site Data					
			Location (Lat/Long provide decimal to 6 places)				Installation		O&M (see Note below)				Drainage Area (acres)		BMP Information			
BMP ID	**BMP Name per DEP BMP Effectivess Values Table**	**Development**	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
20-7	Bioretention/ Raingarden (A/B soils w/o underdrain)	Mountain Crest Estates	Carroll Twp	Dogwood Run	40.112026	-77.04798	2016	PAG02-0067-12-013			YES		0.13	0	2216			
20-18	Bioretention/ Raingarden (A/B soils w/o underdrain)	Advance Auto Parts	Carroll Twp	Fishers Run	40.130653	-77.017979	2014				YES		0.31	0				
													0.44	***0***				
20-8	Bioswale	Mountain Crest Estates	Carroll Twp	Dogwood Run	40.111416	-77049144	2016	PAG02-0067-12-013			YES			1.6	3900			
20-15	Bioswale	Stonebridge Crossing	Carroll Twp	Fishers Run	40.124456	-77.008841	2015	PAG2006715069			YES		0.118	0.194				
20-23	Bioswale	Logan Meadows	Carroll Twp	Fishers Run	40.120781	-77.023052	2014	PAG02006709054R			YES							
													0.118	***1.794***				
20-16	Filtering Practices	Stonebridge Crossing	Carroll Twp	Fishers Run	40.125686	-77.007278	2016	PAG2006715069			YES		0.227	0.431				
20-29	Filtering Practices	Presbyterian Homes	Carroll Twp	Trib to Yellow Breeches	40.136282	-77.017662	2013	PAG2006705121			YES		0.195	0				
20-30	Filtering Practices	Sheetz	Carroll Twp	Dogwood Run	40.116544	-77.038326	2013				YES		0.08	0				
													0.502	***0.431***				
20-2	Infiltration practices w/Sand, Veg.	Mountain Crest Estates	Carroll Twp	Dogwood Run	40.111626	-77.047532	2016	PAG02-0067-12-013			YES		0.13	0				44x8x3
20-3	Infiltration practices w/Sand, Veg.	Mountain Crest Estates	Carroll Twp	Dogwood Run	40.112563	-77.047669	2016	PAG02-0067-12-013			YES		0.13	0				30x10x3
20-4	Infiltration practices w/Sand, Veg.	Mountain Crest Estates	Carroll Twp	Dogwood Run	40.112757	-77.048115	2016	PAG02-0067-12-013			YES		0.13	0				40x8x3
20-5	Infiltration practices w/Sand, Veg.	Mountain Crest Estates	Carroll Twp	Dogwood Run	40.111226	-77.049505	2015	PAG02-0067-12-013			YES		0.13	0				42x8x3
20-6	Infiltration practices w/Sand, Veg.	Mountain Crest Estates	Carroll Twp	Dogwood Run	40.111597	-77.049185	2015	PAG02-0067-12-013			YES		0.13	0				42x8x3
20-12	Infiltration practices w/Sand, Veg.	Golfview Heights	Carroll Twp	Dogwood Run	40.101799	-77.041243	2016	PAG02006708019R			YES		0.62	1.1				
20-13	Infiltration practices w/Sand, Veg.	Golfview Heights	Carroll Twp	Dogwood Run	40.102345	-77.041484	2016	PAG02006708019R			YES		0.07	0				
20-14	Infiltration practices w/Sand, Veg.	Stonebridge Crossing	Carroll Twp	Fishers Run	40.124718	-77.008174	2016	PAG2006715069			YES		1.303	2.41				
20-19	Infiltration practices w/Sand, Veg.	Gage Storage	Carroll Twp	Fishers Run	40.126187	-77.013236	2015				YES		5.18	3.35				
20-20	Infiltration practices w/Sand, Veg.	Turkeyfoor Nursery	Carroll Twp	Dogwood Run	40.141497	-77.034752	2016	PAG02006716001			YES		1.02	1.27				35x120x2
20-21	Infiltration practices w/Sand, Veg.	Hope Grace Church	Carroll Twp	Fishers Run	40.102552	-77.017753	2015	PAG02006714002			YES		0	3.2	72200			
20-22	Infiltration practices w/Sand, Veg.	Logan Meadows	Carroll Twp	Fishers Run	40.119889	-77.020663	2015	PAG02006709054R			YES		0	0				
20-25	Infiltration practices w/Sand, Veg.	Windy Heights	Carroll Twp	Stoney Run	40.10255	-77.025515	2015	PAG02006705024R			YES		0.29	0				60x35x3
20-28	Infiltration practices w/Sand, Veg.	Windy Heights	Carroll Twp	Stoney Run	40.103127	-77.023729	2016	PAG02006705024R			YES		0	25.7				
20-31	Infiltration practices w/Sand, Veg.	57 Campground Road	Carroll Twp	Dogwood Run	40.139089	-77.007843	2016	PAG02006716005			YES		0.09	0.96	66503			
20-32	Infiltration practices w/Sand, Veg.	57 Campground Road	Carroll Twp	Dogwood Run	40.112012	-77.051577	2016	PAG02006716005			YES		0.09	0.7	4500			
													9.313	***38.69***				
20-17	Tree Planting	Stonebridge Crossing	Carroll Twp	Fishers Run	40.124692	-77.006474	2016	PAG2006715069			YES		0.32	0.323				

CARROLL TOWNSHIP			**Best contact person/number if questions about BMP: Brandon Slatt (717)432-4951**											**Site Data**					
			Location (Lat/Long provide decimal to 6 places)				**Installation**		**O&M (see Note below)**					**Drainage Area (acres)**		**BMP Information**			
20-24	Tree Planting	Logan Meadows	Carroll Twp	Fishers Run	40.119946	-77.017547	2016	PAG02006709054R			YES								
20-26	Tree Planting	Windy Heights	Carroll Twp	Stoney Run	40.104195	-77.021677	2015	PAG02006705024R			YES			0	2				
														0.32	***2.323***				

NOTE: We are inspecting Basins that were placed as part of NPDES permits. Other BMPs will follow as required. The inspection is by the MS4 Coordinator or coordinator's staff (B&L). Inspection frequency is minimum once per permit cycle. Condition observations are ongoing during Township road and facility maintenance activities. We are not aware of any BMPs that are not functioning as designed. The ones inspected appear to be working as designed.

Dillsburg Borough		Best contact person/number if questions about BMP: Tim Knoebel, P.E., timk@kpitech.net, (717) 339-0612															
		Location (Lat/Long provide decimal to 6 places)				Installation		O & M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
58-3	Dry Extended Detention Basins	Dillsburg Boro	Dogwood Run	40.112363	-77.039284	2003	n/a	1B	1B	Yes	ECI Properties	0.82	0.14	3,990	-	-	-
58-8	Dry Extended Detention Basins	Dillsburg Boro	Dogwood Run	40.116253	-77.038262	2008	unknown	4A	4A	Yes	Sheetz, Inc.	0.83	-	-	-	-	6,002
58-9	Dry Extended Detention Basins			40.116081	-77.038772	2008	unknown	4A	4A	Yes	Sheetz, Inc.			-	-	-	4,447
58-13	Dry Extended Detention Basins	Dillsburg Boro	Fishers Run	40.106342	-77.032557	2014	n/a	6A	6A	Yes	Northern York School District	0.20	0.24	923	-	-	-
												1.85	***0.38***				
58-11	Bioretention/ Raingarden (A/B soils	Dillsburg Boro	Dogwood Run	40.115671	-77.036038	2012	n/a	5A	5A	Yes	Jack Panas	0.10	0.30	3,250	-	-	3,250
												0.10	***0.30***				
58-12	Bioswale	Dillsburg Boro	Dogwood Run	40.115772	-77.036338	2012	n/a	5B	5B	Yes	Jack Panas	0.00	0.13	640	-	-	-
												0.00	***0.13***				
58-10	Filtering Practices	Dillsburg Boro	Dogwood Run	40.116101	-77.038291	2008	unknown	4B	4B	Yes	Sheetz, Inc.	0.61	0.00	-	-	-	-
58-14	Filtering Practices	Dillsburg Boro	Fishers Run	40.106487	-77.032884	2014	n/a	6B	6B	Yes	Northern York School District	0.20	0.24	-	-	-	-
												0.81	***0.24***				
58-4	Infiltration practices w/Sand, Veg.	Dillsburg Boro	Dogwood Run	40.111561	-77.037928	2003	n/a	2	2	Yes	ECI Properties	0.26	0.00	3,200	-	-	3,840
58-5	Infiltration practices w/Sand, Veg.	Dillsburg Boro	Dogwood Run	40.111118	-77.038143	2003	n/a	2	2	Yes	ECI Properties	0.05	0.00	300	-	-	360
58-15	Infiltration practices w/Sand, Veg.	Dillsburg Boro	Dogwood Run	40.112099	-77.038291	2015	n/a	7	7	Yes	ECI Properties	0.90	0.10	2,568	-	-	2,568
58-16	Infiltration practices w/Sand, Veg.	Dillsburg Boro	Dogwood Run	40.114164	-77.038360	2016	n/a	8	8	Yes	James Merritts	0.12	0.00		-	-	-
58-18	Infiltration practices w/Sand, Veg.	Dillsburg Boro	Fishers Run	40.107668	-77.029084	2016	PAG02006711 055R-2	10A	10A	Yes	Dillsburg Borough	0.40	0.91	10,350	-	-	-
58-21	Infiltration practices w/Sand, Veg.	Dillsburg Boro	Fishers Run	40.107406	-77.029689	2016	PAG02006711 055R-2	10D	10D	Yes	Dillsburg Borough	0.00	0.15	6,430	-	-	-
58-22	Infiltration practices w/Sand, Veg.	Dillsburg Boro	Fishers Run	40.107664	-77.029084	2016	PAG02006711 055R-2	10E	10E	Yes	Dillsburg Borough	0.05	0.00	106	-	-	106
												1.78	***1.16***				
58-1	Permeable Pavement w/Sand or Veg. (A/B	Dillsburg Boro	Dogwood Run	40.111964	-77.039227	2003	n/a	1A	1A	Yes	ECI Properties	0.66	0.12	20,887	-	-	13,994
58-2	Permeable Pavement w/Sand or Veg. (A/B	Dillsburg Boro	Dogwood Run	40.112046	-77.039089	2003	n/a	1A	1A	Yes	ECI Properties	0.56	0.19	18,249	-	-	12,227
58-6	Permeable Pavement w/Sand or Veg. (A/B	Dillsburg Boro	Dogwood Run	40.112504	-77.039366	2007	n/a	3	3	Yes	ECI Properties	0.18	0.12	5,981	-	-	7,955

Dillsburg Borough		Best contact person/number if questions about BMP: Tim Knoebel, P.E., timk@kpitech.net, (717) 339-0612															
		Location (Lat/Long provide decimal to 6 places)				Installation		O & M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
58-7	Permeable Pavement w/Sand or Veg. (A/B	Dillsburg Boro	Dogwood Run	40.112556	-77.038821	2007	n/a	3	3	Yes	ECI Properties	0.19	0.21	5,783	-	-	7,691
58-17	Permeable Pavement w/Sand or Veg. (A/B	Dillsburg Boro	Dogwood Run	40.109041	-77.039312	2016	n/a	9	9	Yes	Life in Christ Fellowship	0.35	0.14	8,080	-	-	5,387
58-20	Permeable Pavement w/Sand or Veg. (A/B	Dillsburg Boro	Fishers Run	40.107664	-77.029084	2016	PAG02006711 055R-2	10C	10C	Yes	Dillsburg Borough	0.54	0.00	23,340	-	-	15,638
												2.48	***0.78***				
58-19	Tree Planting	Dillsburg Boro	Fishers Run	40.108360	-77.029655	2016	PAG02006711 055R-2	10B	10B	Yes	Dillsburg Borough	**0.00**	**1.00**	-	-	750	-

1 - ECI Phase 1
2 - ECI Contractor Shop
3 - ECI Phase 2
4 - Sheetz
5 - Panas Insurance
6 - Dillsburg Elementary Addition
7 - ECI Parking Lot
8 - Merritts Parking Lot
9 - Life In Christ Fellowship Parking Lot
10 - Dillsburg Park

Dover Township		**Best contact person/number if questions about BMP: Terry Myers (CS Davidson) 717-846-4805**										**Site Data**					
		Location (Lat/Long provide decimal to 6 places)				**Installation**		**O&M**				**Drainage Area (acres)**		**BMP Information**			
BMP ID	**BMP Name per DEP BMP Effectivess Values Table**	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
24-7	Bioretention-Raingarden (C/D soils w/ underdrain)	Dover Twp	Little Conewago Creek	39.98359	-76.823041	2013	PAG02-0067-13-006	see attached	see attached	yes		0.35	0.24	1440			
24-8	Bioretention-Raingarden (C/D soils w/ underdrain)	Dover Twp	Little Conewago Creek	39.983136	-76.823548	2013	PAG02-0067-13-006	see attached	see attached	yes		0.22	0.22	1500			
24-9	Bioretention-Raingarden (C/D soils w/ underdrain)	Dover Twp	Little Conewago Creek	39.982819	-76.823483	2013	PAG02-0067-13-006	see attached	see attached	yes		0.23	0.21	1650			
24-12	Bioretention-Raingarden (C/D soils w/ underdrain)	Dover Twp	Little Conewago Creek	39.981324	-76.812041	2016	not required	see attached	see attached	yes		0.085	0	600			
												0.885	***0.67***				
24-6	Bioswale	Dover Twp	Little Conewago Creek	39.982401	-76.818677	2013	not required	see attached	see attached	yes		**0.25**	**0.13**	450			
24-5	Filtering Practice	Dover Twp	Fox Run	39.993263	-76.842807	2012	PAG02-0067-10-033	see attached	see attached	yes		**0.7**	**0.28**				
24-10	Dry Extended Detention Basins	Dover Twp	Fox Run	39.990959	-76.83785	2015	PAG02-0067-14-031	see attached	see attached	yes		**4.01**	**1.69**	24807			
24-11	Infiltration practices w/Sand, Veg.	Dover Twp	Fox Run	40.005503	-76.811241		unknown	see attached	see attached	yes		**0.74**	**0**				9290

Fairview Township		Best contact person/number if questions about BMP: Paul Rodrigo (717) 901-5298										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
27-1	Infiltration practices w/Sand,	Fairview Twp.	Lower Susquehanna	40°12'14"N	76°51'20"W	2016	PAG02006715031	See Sheet 1		Yes	JMT/PATC	0.00	0.69	9,947			
27-3	Infiltration practices w/Sand,	Fairview Twp.	Fishing Creek	40°10'43.68"N	76°48'15.11"W	2016		See Sheet 3		Yes		4.83	16.46	12,590			
27-5	Infiltration practices w/Sand,	Fairview Twp.	UNT to Fishing Creek	40° 9'55.64"N	76°50'12.47"W	2011	PAG2006711035	See Sheet 4		Yes		3.91	2.59	209,947			
27-7	Infiltration practices w/Sand,	Fairview Twp	Yellow Breeches	40°12'49.78"N	76°53'5.06"W	2014	PAG02006712052	See Sheet 6		Yes		4.06	5.88	346,302			
												12.80	***25.62***				

Hanover Borough		Best contact person/number if questions about BMP: Falyn Morningstar (717) 637-3877, ext. 3263 or fmorningstar@hanoverboroughpa.gov										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
67-2	Dry Extended Detention Basins	Hanover Boro	Codorus	39.811537	-76.971509	2016	PAG-02-0067-11-038R	mowing	moderate	yes	Hanover Boro	2.17595	2.17595	11,432.90			
67-5	Dry Extended Detention Basins	Hanover Boro	Conewago	39.820265	-76.975569	2016	PAG02006714058	mowing	moderate	yes	Landowner	1.539	2.973	15,606.90			
												3.71495	***5.149***				
67-3	Infiltration practices w/Sand, Veg.	Hanover Boro	Conewago	39.826747	-76.992137	2010	PAG02-0067-04-069R	mowing	moderate	yes	Landowner	24.365	24.365	134,346.90			
67-4	Infiltration practices w/Sand, Veg.	Hanover Boro	Conewago	39.827535	-76.988567	2010	PAG02-0067-04-069R	mowing	moderate	yes	Landowner	2.4405	46.3695	18,499.80			
												26.8055	***70.735***				
67-1	Wet Pond and Wetlands	Hanover	Codorus	39.812894	-76.968795	2015	PAG02-0067-03-054R-1	mowing	moderate	yes	Hanover Boro	**7.711155**	**7.71116**	10,752.70			

Manchester Township		Best contact person/number if questions about BMP: BJ Treglia (Engineer/CSD) 717-814-4517 (direct) BJT@csdavidson.com										Site Data					
		Location			(Lat/Long provide decimal to 6 places)		Installation	O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
36-10	Bioswale	Manchester Township	Codorus Creek	40.020044	-76.71808	2015	Yes, but not available	See Below	Maintenance activities to be done annually and within 48 hours after every major storm event (> 1 inch rainfall depth)	Yes		0.055	0.185				
36-11	Bioswale	Manchester Township	Codorus Creek	40.019513	-76.718026	2015	Yes, but not available	See Below		Yes		1.6	0.54				
36-12	Bioswale	Manchester Township	Codorus Creek	40.004273	-76.716511	2012	Yes, but not available	See Below		Yes		0.192	0.248				
36-13	Bioswale	Manchester Township	Codorus Creek	40.00461	-76.717578	2012	Yes, but not available	See Below		Yes		0.096	0.114				
36-18	Bioswale	Manchester Township	Codorus Creek	40.012388	-76.73283	2015	Yes, but not available	See Below		Yes		0.08	0.14				
												2.023	***1.227***				
36-2	Dry Extended Detention Basins	Manchester Township	Codorus Creek	39.995549	-76.733172	2011	Yes, but not available	General Inspection	Annually and after any major rainfall event	Yes		0.128	0.59				
36-6	Dry Extended Detention Basins	Manchester Township	Codorus Creek	39.991573	-76.74204	2015	Yes, but not available	General Inspection		Yes		1.5	13.74				
36-7	Dry Extended Detention Basins	Manchester Township	Codorus Creek	40.00546	-76.719156	2016	Yes, but not available	General Inspection		Yes		0.12	1.68				
36-8	Dry Extended Detention Basins	Manchester Township	Codorus Creek	40.019305	-76.718088	2015	Yes, but not available	General Inspection		Yes		1.6	0.54				
36-9	Dry Extended Detention Basins	Manchester Township	Codorus Creek	40.019617	-76.719727	2015	Yes, but not available	General Inspection		Yes		0.35	0.32				
36-14	Dry Extended Detention Basins	Manchester Township	Little Conewago Creek	40.02485	-76.762604	2012	Yes, but not available	General Inspection		Yes		2.88	15.4				
36-15	Dry Extended Detention Basins	Manchester Township	Little Conewago Creek	40.023167	-76.761096	2015	Yes, but not available	General Inspection		Yes		3.414	14.47				
36-17	Dry Extended Detention Basins	Manchester Township	Codorus Creek	40.012048	-76.732396	2015	Yes, but not available	General Inspection		Yes		1.33	0.64				
36-19	Dry Extended Detention Basins	Manchester Township	Codorus Creek	40.024663	-76.73299	2016	Yes, but not available	General Inspection		Yes		0.96	0.56				
36-20	Dry Extended Detention Basins	Manchester Township	Codorus Creek	39.993134	-76.748181	2014	Yes, but not available	General Inspection		Yes		7.75	27.1				
												20.032	***75.04***				
36-16	Filtering Practices	Manchester Township	Codorus Creek	39.982938	-76.726693	2011	Yes, but not available	See Below		Yes		4.403	1.887				
36-29	Filtering Practices	Manchester Township	Willis Run	39.984602	-76.736069	2014	Yes, but not available	See Below		Yes		0.29	0.06				
												4.693	***1.947***				
36-1	Infiltration practices w/Sand, Veg.	Manchester Township	Codorus Creek	39.995879	-76.733567	2011	Yes, but not available	See Below	(1) At least twice each year and after storm events exceeding 1 inch of rainfall; (2) At least twice each year and after storm events exceeding 1 inch of rainfall; and (3) After storm events exceeding 1 inch of rainfall.	Yes		0.5	0.22				
36-4	Infiltration practices w/Sand, Veg.	Manchester Township	Codorus Creek	40.036816	-76.735591	2015	Yes, but not available	See Below		Yes		2.47	1.33				
36-22	Infiltration practices w/Sand, Veg.	Manchester Township	Codorus Creek	40.031282	-76.729366	2016	Yes, but not available	See Below		Yes		2.2					
36-23	Infiltration practices w/Sand, Veg.	Manchester Township	Codorus Creek	40.031037	-76.729245	2016	Yes, but not available	See Below		Yes		1.19					
36-24	Infiltration practices w/Sand, Veg.	Manchester Township	Codorus Creek	40.031021	-76.728338	2016	Yes, but not available	See Below		Yes		0.08					
36-25	Infiltration practices w/Sand, Veg.	Manchester Township	Codorus Creek	40.032784	-76.728719	2016	Yes, but not available	See Below		Yes		1.648	0.446				
36-26	Infiltration practices w/Sand, Veg.	Manchester Township	Codorus Creek	40.03273	-76.729738	2016	Yes, but not available	See Below		Yes		0.489	1.23				
36-27	Infiltration practices w/Sand, Veg.	Manchester Township	Codorus Creek	40.032519	-76.730496	2016	Yes, but not available	See Below		Yes		0.668	0.208				
36-28	Infiltration practices w/Sand, Veg.	Manchester Township	Codorus Creek	40.03129	-76.730494	2016	Yes, but not available	See Below		Yes		1.11	0.853				
												10.355	***4.287***				
36-30	Bioretention/ Raingarden (A/B soils w/o underdrain)	Manchester Township	Willis Run	39.984952	76.735589	2014	Yes, but not available	See Below		Yes		**0.12**	**0.07**				

Bioswale O&M Activity	Inspect and correct erosion problems, damage to vegetation, and sediment and debris accumulation (address when > 3 inches at any spot or covering vegetation). Inspect vegetation on side slopes for erosion and formation of rills or gullies, correct as needed. Inspect for pools of standing water; dewater and discharge to an approved location and restore to design grade. Mow and trim vegetation to ensure safety, aesthetics, proper swale operation, or to suppress weeds and invasive vegetation; dispose of cuttings in a local composting facility; mow only when swale is dry to avoid rutting. Inspect for litter; remove prior to mowing. Inspect for uniformity in cross-section and longitudinal slope, correct as needed. Inspect swale inlet and outlet for signs of erosion or blockage, correct as needed. Maintenance to be done as needed: Plant alternative grass species in the event of unsuccessful establishment. Reseed bare areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming. Rototill and replant swale if draw down time is more than 48 hours. Inspect and correct check dams when signs of altered water flow (channelization, obstructions, erosion, etc.) are identified. Water during dry periods, fertilize, and apply pesticide only when absolutely necessary. Winter conditions also necessitate additional maintenance concerns, which include the following: Immediately after the spring melt, remove residuals (e.g. sand) and replace damaged vegetation without disturbing remaining vegetation. If roadside or parking lot runoff is directed to the swale, mulching and/or soil aeration/manipulation may be required in the spring to restore soil structure and moisture capacity and to reduce the impacts of deicing agents. Use nontoxic, organic deicing agents, applied either as blended, magnesium chloride-based liquid products or as pretreated salt. Use salt-tolerant vegetation in swales. (adapted from 363-0300-002 / Dec 30, 2006, pgs 95-96)
Filtering Practices O&M Activity	(1) Inspect all water quality inlets at least once every 30 days for the first year after the York County Conservation District certifies that the site has achieved permanent stabilization. (2) Create, maintain, and make available upon request written inspection reports of all water quality inspections. Those reports shall record dates and depths of all rain events of 0.5 inches or greater, depths of grit and sediment captured in each inlet, and description of floatable debris and oils on the surface of the captured water. (3) After the first year mentioned in 1, inspect all water qualities inlets at least once every six months or more often, if the manufacturer recommends based upon the inspection reports. (4) Have all accumulated grit sediment, floatable debris and oils removed from each quality inlet: whenever a spill or other incident causes a larger than normal accumulation of pollutants in the inlet; at least every six months; whenever sediment accumulates to within 6 inches of the snout bottom; or whenever floatable debris and oil clogs form a layer greater than 3 inches thick. (5) Have pollutants removed from water quality inlets using a vacuum truck. (6) Obtain, maintain, and make available upon request documentation that pollutants removed from water quality inlets are handled and disposed of in accordance with all requirements of all applicable local, state, and federal laws, regulations, and policies. (7) Inspect and have maintained the snout hoods at least once every year: inspect the anti-siphon vent and access hatch; gently rod with a flexible wire and flush the vent; open and close the access hatch; check to assure the hood is neither cracked nor broken; check to assure that all bolds hold the hood firmly against the inlet wall; check to assure that the gasket forms a water tight seal between the hood and inlet wall; and continue inspection reporting pursuant to 1 and 2. (from Design Plans, Sheet # C-4)
Infiltration Practices O&M Activity	(1) Inspect subsurface infiltration bed (S.I.B.) grass areas, clean outs, rain gutters, roof leaders, inlet structures, and areas draining to beds. (2) Remove sediment, trash and other debris from subsurface infiltration bed (s.i.b.) grass areas, cleanouts, rain gutters, roof leaders, inlet structures, and areas draining to beds. Immediately implement needed repairs or actions. (3) After storm events exceeding 1 inch of rainfall, inspect subsurface infiltration bed cleanouts, and/or grass areas to determine if they drain within 72 hours. (4) Maintain subsurface infiltration bed (S.I.B.) grass areas in good condition, gras stabilization (i.e. > 75% uniform perennial 3"-6" grass coverage.) Immediately stabilize bare spots or eroded areas. Restrict mowing for at least 72 hours after storm/rainfall events. (5) Restrict vehicular or other equipment traffic on infiltration areas to only that necessary for mowing or bmp repairs. (6) Prohibit storage of hazardous materials on subsurface infiltration bed, grass areas or on areas that drain to beds.
Bioretention /Raingarden O&M Activity	(1) While vegetation is being established, pruning and weeding may be required. (2) Detritus (waste or debris) shall be removed on an as needed basis. (3) Topsoil (8” min) shall be placed as shown. Seed per permanent seeding specifications to fully vegetate the rain garden. Maintain full vegetative cover at all times. (4) Inspect tow times per year for sediment buildup, erosion, vegetative conditions, etc. (5) During periods of extended drought, watering may be required. (6) Inspect vegetation to evaluate health twice a year. (7) Dead or drying shrubs must be replaced immediately. Inspect shrubs twice per year to evaluate health. (8) Inspect stone trench for signs of sediment buildup. If top layer of stone becomes clogged with sediment, remove stone and geotextile layer. Replace geotextile. Clean stone and replace. The owner of the property shall be responsible for ensuring the appropriate rain garden is installed per the approved plan. The municipal engineer or his designee may inspect the facility during construction. The owner of said lot will be responsible for all routine maintenance of the facility.

Monaghan Township		Best contact person/number if questions about BMP: Vicki Aycock @ Pennoni Associates, Inc., phone number 717-620-5968										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
38-6	Bioretention/ Raingarden (A/B soils w/o underdrain)	Monaghan	Yellow Breeches Creek	40.152461	-76.991475	2012	PAG02006714044 (?)	1. Remove detritus as needed. Cut down perennial at end of growing season. 2. Re-spread mulch when erosion is evident and replenish as needed. 3. Inspect areas for sediment buildup, erosion, vegetative conditions, etc. 4. Water areas during periods of extended drought. 5. Inspect trees and shrubs to evaluate health.	1. As needed & annually 2. As needed & once every two to three years 3. Twice Annually 4. As Needed 5. Twice Annually	Yes	Messiah College	0.32	0.20	3,180.00	N/A	N/A	N/A
38-8	Bioretention/ Raingarden (A/B soils w/o underdrain)	Monaghan	Yellow Breeches Creek	40.152461	-76.991475	2012	PAG02006714044 (?)			Yes	Messiah College	0.26	0.15	2,400.00	N/A	N/A	N/A
38-9	Bioretention/ Raingarden (A/B soils w/o underdrain)	Monaghan	Yellow Breeches Creek	40.152461	-76.991475	2012	PAG02006714044 (?)			Yes	Messiah College	0.01	0.15	2,400.00	N/A	N/A	N/A
												0.59	***0.50***				
38-4	Infiltration practices w/Sand, Veg.	Monaghan	Yellow Breeches Creek	40.138414	-76.985950	2012	PAG 2002107029	1. Inspect and clean inlets. 2. Flush sediment from trench manifold pipe and dispose offsite. 3. Observe water levels in pipe to insure dewatering. If standing water noted, clean orifices in outlet structure. 4. Inspect for signs of clogging of the inlet and outlet structures and sediment accumulation. 5. Inspect for trash and debris in pipe system and inlet and outlet structures. Repair as needed.	1. Annually 2. Annually 3. As needed 4. After several storm events or an extreme storm event 5. Twice per year	Yes	Christ Lutheran Church	0.58	0.22	8,214.00	N/A	N/A	N/A
38-7	Infiltration practices w/Sand, Veg.	Monaghan	Yellow Breeches Creek	40.152461	-76.991475	2012	PAG02006714044 (?)	1. Clean and inspect all catch basins and inlets. 2. Maintain overlying vegetation in good condition. Revegetate bare spots.	1. Twice Annually 2. As Needed	Yes	Messiah College	0.30	0.08	2,445.00	N/A	N/A	N/A
38-1	Infiltration practices w/Sand, Veg.	Monaghan	Yellow Breeches Creek	40.152761	-76.986650	2014	PAG02006714044	1. Heavy equipment shall not be used in infiltration areas. These areas are to remain loosely compacted to promote infiltration. 2. Inspect for accumulation of sediment, damage to outlet structures, erosion control measures, and signs of water contamination/spills.	1. As Needed	Yes	Messiah College	2.42	2.37	24,635.00	N/A	N/A	29,562
38-2	Infiltration practices w/Sand, Veg.	Monaghan	Yellow Breeches Creek	40.152761	-76.986650	2014	PAG02006714044		1. As Needed	Yes	Messiah College	0.24	0.21	10,350.00	N/A	N/A	5,175
												3.54	***2.88***				
38-3	Permeable Pavement w/Sand or Veg. (C/D Soils w/ underdrain)	Monaghan	Yellow Breeches Creek	40.138414	-76.985950	2012	PAG 2002107029	1. Inspect annually and inspect for surface ponding after large storm events. If localized ponding occurs, drill 1/2 inch holes through porous pavement layer every few feet. If widespread ponding occurs, entire structure may have to be replace. 2. Vacuum at least four times a year, followed by high-pressure jet hosing. 3. Repair potholes and cracks using conventional, non-porous patching mixes as long as cumulative area repaired does not exceed 10% of pavement area.	1. Annually and after large storm events 2. Four times annually 3. As needed 4. As needed	Yes	Christ Lutheran Church	**0.29**	**0.06**	5,000.00	N/A	N/A	N/A
38-5	Dry Extended Detention Basins	Monaghan	Yellow Breeches Creek	40.138414	-76.985950	2012	PAG 2002107029	1. Mow grass regularly to prevent brush and tree growth in basin and spillway. 2. Check outlet pipes, swales, stormwater basin and spillway for obstructions, sedimentation and washouts. 3. Check swales and basin for rodents that may interfere with structural integrity. 4. Immediately clean, repair or replace any component of drain structures found not functioning as intended.	1. As needed 2. Monthly 3. Monthly 4. As needed	Yes	Owner - Christ Lutheran Church	**0.13**	**0.08**	128.00	N/A	N/A	N/A

Monaghan Township		Best contact person/number if questions about BMP: Vicki Aycock @ Pennoni Associates, Inc., phone number 717-620-5968										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
38-10	Bioswale	Monaghan	Yellow Breeches Creek	40.152461	-76.991475	2012	PAG02006714044 (?)	1. Inspect and correct erosion problems, damage to vegetation, and sediment and debris accumulation. Address when > 3 inches at any spot or covering vegetation. Inspect vegetation on side slopes for erosion and formation of rills or gullies. Inspect for pools of standing water; dewater and discharge to an approved location and restore to design grade. Mow and trim vegetation to ensure safety, aesthetics, proper swale operation, or to suppress weeds and invasive vegetation; dispose of cuttings in a local composting facility; mow only when swale is dry to avoid rutting. Inspect for litter; remove prior to mowing. Inspect for uniformity in cross-section and longitudinal slope, correct as needed. Inspect swale inlet (curb cuts, pipes, etc.) and outlet for signs of erosion or blockage, correct as needed. 2. Plant alternative grass species in event of unsuccessful establishment. Reseed bare areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming. Rototill and replant swale if draw down time is more than 48 hours. Inspect and correct check dams when signs of altered water flow	1. Annually and within 48 hours after every major storm event > 1 inch rainfall depth. 2. As Needed	Yes	Messiah College	**0.21**	**0.57**	500.00	N/A	N/A	N/A

Mount Wolf Borough		Best contact person/number if questions about BMP: Christopher T. Owens/717-741-4621										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
77-1	Stream Restoration	Mt. Wolf	Hartman Run	40.063366	76.709491	2012	NA	Perimeter mowing	as necessary	Yes	Georgia-Pacific, LLC	**0.65**	**0**	3000	235	12.5	
77-2	Wet Ponds and Wetlands	Mt. Wolf	Hartman Run	40.068091	76.0747	2011	PAG 20066711026	visual inspection	annually	Yes	Mt. Wolf Borough	**0.35**	**0.05**	12000			

Newberry Township		Best contact person/number if questions about BMP: Vicki Aycock @ Pennoni (717) 620-5968										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
39-7	Bioretention/ Raingarden (A/B soils w/o underdrain)	Newberry Twp	Conewago Creek	40.149556	-76.813194	Mar-12	PAG2006707039	1. Stormwater management facilities shall be maintained in good working condition so that they are performing their design function. Maintenance shall include performing routine maintenance and repair or replacement of damaged facilities, vegetation or stormwater areas to conditions as shown on the approved plan and in accordance with Newberry Township SLDO.	1. As Needed	Yes	Newberry Investment Partners, LP	1.50	1.49	12,777			
39-2	Bioswale	Newberry Twp	Susquehanna River	40.129197	-76.769831	Jun-15	PAG02006710040R	1. Mow grass to maintain a height of 3-4 inches. Cultivate the surface of the sand/soil bed of dry swales if the swale does not draw down within 48 hours. Remove sediment build-up within the bottom of the swales once it has accumulated to 25% of the original design volume, or once it has covered vegetation. 2. Inspect grass along side slopes for erosion, rills or gullies and correct. Remove trash and debris accumulated in inflow forebay. Inspect and correct erosion problems in the sand//soil bed of dry swales. Inspect vegetation, plat alternative species if original species have not successfully established . Inspect for pools of standing water; discharge to an approved location, restore to design grade. Inspect for uniformity in cross-section and longitudinal slope, correct as needed. 3. Inspect swales immediately after spring melt. Remove residuals and replace damage vegetation. Mulching and/or soil aeration may be required in the spring to restore soil structure and moisture capacity and to reduce the impact of deicing agents. Use nontoxic, organic deicing agents. Plan salt tolerant vegetation in swales.	1. As Needed 2. Annual 3. Winter	Yes	Homeowners Association	0.90	1.40		N/A	N/A	N/A
39-8	Bioswale	Newberry Twp	Conewago Creek	40.149556	-76.813194	Mar-12	PAG2006707039			Yes	Newberry Investment Partners, LP			5,332			
												0.90	**1.40**				
39-1	Dry Extended Detention Basins	Newberry Twp	Susquehanna River	40.129197	-76.769831	Jun-15	PAG02006710040R	1. Repair undercut or eroded areas, mow side slopes, seed or sod to repair dead or damaged ground cover. 2. All basin structures expected to receive and/or debris and sediment should be inspected for clogging and excessive debris and sediment accumulation, as well as after every storm greater than 1 inch. 3. Note erosion of pond banks or bottom. 4. Inspect for damage to the embankment. Monitor for sediment accumulations in the facility and forebay, examine to ensure that inlet and outlet devices are free of debris and operational. Inspect vegetated areas for erosion and invasive species. 5. Remove sediment from the forebay (if applicable). 6. Monitor sediment accumulations and remove sediment when the pond volume has been reduced by 25%.	1. As Needed 2. Four Times Per Year 3. Semi-Annual 4. Annual 5. 5-7 Year Maintenance 6. 25-50 Year Maintenance	Yes	Homeowners Association	0.60	2.80		N/A	N/A	N/A
39-12	Dry Extended Detention Basins	Newberry Twp	Fishing Creek	40.154264	-76.820875	Sep-10	N/A	1. All basin structures expected to receive and/or trap debris and sediment should be inspected for clogging and excessive debris and sediment accumulation. 2. Mowing and/or trimming of vegetation should be performed to sustain the system. 3. Vegetated areas should be inspected for erosion. 4. Vegetated areas should be inspected for unwanted growth of exotic/invasive species. 5. Vegetative cover should be maintained at a minimum of 95 persent. If vegetative cover has been reduced by 10%, vegetation should be reestablished.	1. Four times annually and after every storm greater than 1 inch. 2. As Needed 3. Annually 4. Annually 5. As Needed	Yes	MAA Durga Enterprises, LLC	0.57	0.33	864	N/A	N/A	3,667
												1.17	***3.13***				

Newberry Township		Best contact person/number if questions about BMP: Vicki Aycock @ Pennoni (717) 620-5968										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
39-3	Filtering Practices	Newberry Twp	Susquehanna River	40.129197	-76.769831	Jun-15	PAG02006710040R	1. Inlets should be emptied when over half full of sediment and trash. 2. Inlets should be cleaned at least twice a year.	1. As Needed 2. Twice/year	Yes	Homeowners Association	4.60	0		N/A	N/A	N/A
39-5	Infiltration practices w/Sand, Veg.	Newberry Twp	Susquehanna River	40.129197	-76.769831	Jun-15	PAG02006710040R	1. For the first six months the site should be inspected at least once after every storm event that exceeds 1/2 inch of rainfall. If bare spots or erosion is observed within the contributing drainage area or soils restoration area reseeding and stabilization should be completed as needed immediately. Based on testing a one-time application of fertilizer may be applied during the fall of the first growing season. Amended soils are should be watered once every three days for a month, and weekly for the first growing season depending on rainfall. 2. The owner should inspect the amended soils area annually for bare spots and erosion. If deficiencies are observed the facility should be reseeded as needed and stabilized immediately.	1. First Year 2. Annually	Yes	Homeowners Association	0.00	18.50	801,504	N/A	N/A	N/A
39-6	Infiltration practices w/Sand, Veg.	Newberry Twp	Conewago Creek	40.149556	-76.813194	Mar-12	PAG2006707039	1. Stormwater management facilities shall be maintained in good working condition so that they are performing their design function. Maintenance shall include performing routine maintenance and repair or replacement of damaged facilities, vegetation or stormwater areas to conditions as shown on the approved plan and in accordance with Newberry Township SLDO.	1. As Needed	Yes	Newberry Investment Partners, LP	1.91	0.00	14,193			
39-11	Infiltration practices w/Sand, Veg.	Newberry Twp	Fishing Creek	40.154264	-76.820875	Sep-10	N/A	1. The vegetation along the surface of the infiltration trench should be maintained in good condition, and any bare spots revegetated as soon as possible. 2. Vehicles should not be parked or driven on a vegetated infiltration trench, and care should be tanken to avoid excessive compaction by mowers.	1. As Needed 2. Ongoing	Yes	MAA Durga Enterprises, LLC	0.57	0.33	N/A	N/A	N/A	3,667
39-13	Infiltration practices w/Sand, Veg.	Newberry Twp	Conewago Creek	40.133706	-76.803644	Aug-16	N/A	1. Inspect stormwater facilities and repairs, if any, shall be made immediately. 2. Stormwater management facilities shall be kept in functioning order free of debris and litter. 3. All site areas paved for automobile traffic shall be swept by a street sweeper. 4. Inspect all basin structures for clogging and excessive debris and sediment accumulation. Mowing and/or trimming of vegetation shall be performed as necessary to sustain system. Remove all detritus from the basin. Vegetated areas shall be inspected for erosion and unwanted growth of exotic/invasive species. Vegetative cover should be maintained at a minimum of 95%. Reestablish vegetation if cover has been reduced by 10%.	1. Quarterly and after measurable rainfall events (greater than 1"). 2. As Needed 3. Once every 6 months. 4. Annually and as needed.	Yes	Rutter Properties, LP	0.82	0.92	3,075	N/A	N/A	
												3.30	***19.75***				

Newberry Township		Best contact person/number if questions about BMP: Vicki Aycock @ Pennoni (717) 620-5968										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
39-4	Tree Planting	Newberry Twp	Susquehanna River	40.129197	-76.769831	Jun-15	PAG02006710040R	1. For the first six months the site should be inspected at least once after every storm event that exceeds 1/2 inch of rainfall. If bare spots or erosion is observed within the contributing drainage area or soils restoration area reseeding and stabilization should be completed as needed immediately. Based on testing a one-time application of fertilizer may be applied during the fall of the first growing season. Amended soils are should be watered once every three days for a month, and weekly for the first growing season depending on rainfall. 2. The owner should inspect the amended soils area annually for bare spots and erosion. If deficiencies are observed the facility should be reseeded as needed and stabilized immediately.	1. First Year 2. Annually	Yes	Homeowners Association	0.00	0.80		N/A	N/A	N/A
39-10	Tree Planting	Newberry Twp	Conewago Creek	40.149556	-76.813194	Mar-12	PAG2006707039			Yes	Newberry Investment Partners, LP			N/A			
												0.00	***0.80***				
39-9	Wet Pond and Wetlands	Newberry Twp	Conewago Creek	40.149556	-76.813194	Mar-12	PAG2006707039	1. Stormwater management facilities shall be maintained in good working condition so that they are performing their design function. Maintenance shall include performing routine maintenance and repair or replacement of damaged facilities, vegetation or stormwater areas to conditions as shown on the approved plan and in accordance with Newberry Township SLDO.	1. As Needed	Yes	Newberry Investment Partners, LP	**24.29**	**8.60**	35,597			

Penn Township		Best contact person/number if questions about BMP: Eric Bortner, P.E. (717) 476-7111										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
44-17	Bioretention/ Raingarden (A/B soils w/o underdrain)	Penn Twp.	Oil Creek	39.797753	-76.957711	October 25, 2016	PAG-02-0067-06-014R	Inspected by Landowner	Annually >=10 yr Storm	Yes	Pinebrook Villas, LLC Phase II	0.31	0.0	10,053			
44-21	Bioretention/ Raingarden (A/B soils w/o underdrain)	Penn Twp.	Oil Creek	39.826161	-76.958017	August 12, 2016	PAG-02-0067-15-072	Inspected by Landowner	Annually >=10 yr Storm	Yes	D & R Bean, LLC	0.9	0.3	8,036			
44-28	Bioretention/ Raingarden (A/B soils w/o underdrain)	Penn Twp.	Oil Creek	39.781119	-76.955403	varies	PAG-02-0067-14-059	Inspected by Landowner	Annually >=10 yr Storm	Yes	J.A. Myers Homes, LLC Mustang Heights	0.0545	0.0	483			
												1.26	***0.30***				
44-2	Bioswale	Penn Twp.	Plum Creek	39.771611	-76.988731	October 25, 2016	PAG-02-0067-16-024	Inspected by Landowner	Annually >=10 yr Storm	Yes	St. Joseph Church Class Room Addition	0.189	0.272	3,240			
44-22	Bioswale	Penn Twp.	Oil Creek	39.825322	-76.963981	January 8, 2016	PAG-02-0067-14-039	Inspected by Landowner	Annually >=10 yr Storm	Yes	Legacy 92, LLC	1.6	0.8	2,870			574
												1.79	***1.07***				
44-5	Dry Extended Detention Basins	Penn Twp.	Oil Creek	39.827880	-76.957961	September 17, 2015	PAG-02-0067-11-052R	Inspected by Landowner	Annually >=10 yr Storm	Yes	Yazoo Mills Inc.	1.5193	1.2673	3,514			
44-7	Dry Extended Detention Basins	Penn Twp.	Oil Creek	39.828336	-76.957922	September 17, 2015	PAG-02-0067-11-052R	Inspected by Landowner	Annually >=10 yr Storm	Yes	Yazoo Mills Inc.	0.6801	5.4453	22,527			
												2.20	***6.71***				
44-4	Filtering Practices	Penn Twp.	Oil Creek	39.827880	-76.957961	September 17, 2015	PAG-02-0067-11-052R	Inspected by Landowner	Annually >=10 yr Storm	Yes	Yazoo Mills Inc.	1.5193	1.2673	3,514			
44-13	Filtering Practices	Penn Twp.	Plum Creek	39.771314	-76.975958	October 25, 2016	PAG-02-0067-03-021R-2	Inspected by Landowner	Annually >=10 yr Storm	Yes	High Pointe, LLC. High Pointe at Rojen Farms - North	3.4	27	3,601			
												4.92	***28.27***				
44-6	Forest Buffers	Penn Twp.	Oil Creek	39.827880	-76.957961	September 17, 2015	PAG-02-0067-11-052R	Inspected by Landowner	Annually >=10 yr Storm	Yes	Yazoo Mills Inc.	1.5193	1.2673	3,514			
44-8	Forest Buffers	Penn Twp.	Oil Creek	39.828336	-76.957922	September 17, 2015	PAG-02-0067-11-052R	Inspected by Landowner	Annually >=10 yr Storm	Yes	Yazoo Mills Inc.	0.6801	5.4453	22,527			
44-9	Forest Buffers	Penn Twp.	Oil Creek	39.828039	-76.958439	September 17, 2015	PAG-02-0067-11-052R	Inspected by Landowner	Annually >=10 yr Storm	Yes	Yazoo Mills Inc.	0.0	0.5854	80,756		168' x 480'	
												2.20	***7.30***				
44-1	Infiltration practices w/Sand, Veg.	Penn Twp.	Plum Creek	39.772531	-76.987381	October 25, 2016	PAG-02-0067-16-024	Inspected by Landowner	Annually >=10 yr Storm	Yes	St. Joseph Church Class Room Addition	0.636	1.206	7,679			
44-3	Infiltration practices w/Sand, Veg.	Penn Twp.	Plum Creek	39.771611	-76.988731	October 25, 2016	PAG-02-0067-16-024	Inspected by Landowner	Annually >=10 yr Storm	Yes	St. Joseph Church Class Room Addition	0.189	0.272	3,240			
44-11	Infiltration practices w/Sand, Veg.	Penn Twp.	Plum Creek	39.772117	-76.972917	October 25, 2016	PAG-02-0067-03-021R-2	Inspected by HOA	Annually >=10 yr Storm	Yes	High Pointe, LLC. High Pointe at Rojen Farms - North	0.0	0.4	2,050			1,845
44-12	Infiltration practices w/Sand, Veg.	Penn Twp.	Plum Creek	39.772117	-76.972917	varies	PAG-02-0067-03-021R-2	Inspected by Landowner	Annually >=10 yr Storm	Yes	High Pointe, LLC. High Pointe at Rojen Farms - North	1.2	0.0	20,329			
44-16	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.797525	-76.957519	October 25, 2016	PAG-02-0067-06-014R	Inspected by Landowner	Annually >=10 yr Storm	Yes	Pinebrook Villas, LLC Phase II	0.096	0.0	1,350			1,620
44-23	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.825322	-76.963981	January 8, 2016	PAG-02-0067-14-039	Inspected by Landowner	Annually >=10 yr Storm	Yes	Legacy 92, LLC	1.6	0.8	2,870			574
44-24	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.825322	-76.963981	January 8, 2016	PAG-02-0067-14-039	Inspected by Landowner	Annually >=10 yr Storm	Yes	Legacy 92, LLC	0.5	0.0				
44-26	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.781119	-76.955403	October 25, 2016	PAG-02-0067-14-059	Inspected by HOA	Annually >=10 yr Storm	Yes	J.A. Myers Homes, LLC Mustang Heights	1.4228	4.4982	2,747			

Penn Township		Best contact person/number if questions about BMP: Eric Bortner, P.E. (717) 476-7111										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
44-27	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.781119	-76.955403	varies	PAG-02-0067-14-059	Inspected by Landowner	Annually >=10 yr Storm	Yes	J.A. Myers Homes, LLC Mustang Heights	0.9052	0.0	17,544			
44-41	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.796822	-76.964381	August 14, 2013	PAG-02-0067-05-085R-1	Inspected by HOA	Annually >=10 yr Storm	Yes	Stone Ridge Development Brookside Heights Phase 1&2	6.165	9.205	10,817			
44-42	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.796978	-76.965936	August 14, 2015	PAG-02-0067-05-085R-1	Inspected by HOA	Annually >=10 yr Storm	Yes	Stone Ridge Development Brookside Heights Phase 1&2	0.5	0.0				1,207
44-43	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.796264	-76.965181	August 14, 2015	PAG-02-0067-05-085R-1	Inspected by HOA	Annually >=10 yr Storm	Yes	Stone Ridge Development Brookside Heights Phase 1&2	0.5	0.0				3,262
44-44	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.798381	-76.966358	October 16, 2015	PAG-02-0067-05-085R-1	Inspected by HOA	Annually >=10 yr Storm	Yes	Stone Ridge Development Brookside Heights Phase 1&2	0.0983	0.1759				544
44-45	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.797769	-76.965189	October 16, 2015	PAG-02-0067-05-085R-1	Inspected by HOA	Annually >=10 yr Storm	Yes	Stone Ridge Development Brookside Heights Phase 1&2	0.1627	0.5112				2,448
44-46	Infiltration practices w/Sand, Veg.	Penn Twp.	Oil Creek	39.797769	-76.965189	varies	PAG-02-0067-05-085R-1	Inspected by Landowner	Annually >=10 yr Storm	Yes	Stone Ridge Development Brookside Heights Phase 1&2	0.2638	0.0				2,522
												14.24	***17.07***				
44-10	Street Sweeping	Penn Twp.	Plum Creek	39.828039	-76.958439	varies	PAG-02-0067-03-021R-2	By HOA	Twice Annually	Yes	High Pointe, LLC. High Pointe at Rojen Farms - North	3.4	0.0				
44-25	Street Sweeping	Penn Twp.	Oil Creek	39.825322	-76.963981	varies	PAG-02-0067-14-039	By Landowner	Twice Annually	Yes	Legacy 92, LLC	1.0	0.0				
												4.4	***0.0***				
44-14	Tree Planting	Penn Twp.	Plum Creek	39.771314	-76.975958	varies	PAG-02-0067-03-021R-2	Inspected by Landowner	Annually >=10 yr Storm	Yes	High Pointe, LLC. High Pointe at Rojen Farms - North	0.0	0.9	90,470			
44-15	Tree Planting	Penn Twp.	Plum Creek	39.771314	-76.975958	varies	PAG-02-0067-03-021R-2	Inspected by Landowner	Annually >=10 yr Storm	Yes	High Pointe, LLC. High Pointe at Rojen Farms - North	0.0	0.4	40,209			
44-29	Tree Planting	Penn Twp.	Oil Creek	39.781119	-76.955403		PAG-02-0067-14-059	Inspected by Landowner	Annually >=10 yr Storm		J.A. Myers Homes, LLC Mustang Heights	0.0	0.0				
44-47	Tree Planting	Penn Twp.	Oil Creek	39.797769	-76.965189	varies	PAG-02-0067-05-085R-1	Inspected by Landowner	Annually >=10 yr Storm	Yes	Stone Ridge Development Brookside Heights Phase 1&2	0.0	0.0	26,265			

Spring Grove Borough		Michael Knouse, P.E., ARRO Consulting, Inc. (717)-975-3995										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
85-2	Bioswale	Spring Grove Borough	UNT to Codorus Creek	39D53'40.389"N	76D51'45.825"W	2014		Inspect BMPs; remove sediment, trash and other debris.	At least twice a year and after storm events exceeding 1 inch of rainfall.	yes	Spring Forge Homeowners Association	0.50	3.13				
85-5	Bioswale	Spring Grove Borough	UNT to Codorus Creek	39D53'24.826"N	76D51'31.431"W	2014		Inspect BMPs; remove sediment, trash and other debris.	At least twice a year and after storm events exceeding 1 inch of rainfall.	yes	Spring Forge Homeowners Association	0.35	3.12				
												0.85	***6.25***				
85-10	Dry Extended Detention Basins	Spring Grove Borough	Codorus Creek	39D53'17.499"N	76D51'37.026"W		N/A	Inspect BMPs; remove sediment, trash and other debris.		yes	Spring Grove Borough	15.40	84.90	184715			
85-9	Filtering Practices	Spring Grove Borough	Codorus Creek	39D52'28.242"N	76D51'58.005"W	2015	N/A	Inspect BMPs; remove sediment, trash and other debris.	At least twice a year and after storm events exceeding 1 inch of rainfall.	yes	Mt. Zion Church	0.15	0.00	1330			
85-1	Infiltration practices w/Sand, Veg.	Spring Grove Borough	UNT to Codorus Creek	39D53'29.605"N	76D51'55.624" W	2014		Inspect BMPs; remove sediment, trash and other debris.	At least twice a year and after storm events exceeding 1 inch of rainfall.	yes	Spring Forge Homeowners Association	1.06	5.12	7273			
85-4	Infiltration practices w/Sand, Veg.	Spring Grove Borough	UNT to Codorus Creek	39D53'29.309"N	76D51'29.863"W	2014		Inspect BMPs; remove sediment, trash and other debris.	At least twice a year and after storm events exceeding 1 inch of rainfall.	yes	Spring Forge Homeowners Association	0.35	3.12	11843			
85-6	Infiltration practices w/Sand, Veg.	Spring Grove Borough	UNT to Codorus Creek	39D52'45.905"N	76D51'47.538"W	2010	PAG2006710025R	Inspect BMPs; remove sediment, trash and other debris.	At least twice a year and after storm events exceeding 1 inch of rainfall.	yes	Denniston Family Partnership, LLC	1.43	1.30	6030			
85-7	Infiltration practices w/Sand, Veg.	Spring Grove Borough	Codorus Creek	39D52'29.982"N	76D51'43.240"W	2008	N/A	Inspect BMPs; remove sediment, trash and other debris.	At least twice a year and after storm events exceeding 1 inch of rainfall.	yes	York County Rail Trail Authority	0.11	0.06	500			
												2.95	***9.59***				
85-3	Wet Ponds and Wetlands	Spring Grove Borough	UNT to Codorus Creek	39D53'40.095"N	76D51'38.835"W	2014		Inspect BMPs; remove sediment, trash and other debris.	At least twice a year and after storm events exceeding 1 inch of rainfall.	yes	Spring Forge Homeowners Association	**0.75**	**6.36**	9795			

Springettsbury Township		Best contact person/number if questions about BMP: John Luciani, First Capitol Engineering, 717-845-3277; johnl@fcap.com										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
46-6	Dry Extended Detention Basins	Springettsbury	Mill	39.980524	-76.667044	8/19/2008	PAG2006707049	YES	After every rainfall >1"	YES	PRIVATE	20.820	11.810	45300	N/A	N/A	N/A
46-33	Dry Extended Detention Basins	Springettsbury	Codorus	39.982852	-76.722538	10/4/2013	PAG2006707043R	YES	After every rainfall >1"	YES	PRIVATE	0.300	1.050	1620	N/A	N/A	N/A
46-12	Dry Extended Detention Basins	Springettsbury	Kreutz	39.981556	-76.651639	7/26/2010	PAG2006703034R-1	YES	2/YR MIN.	YES	PRIVATE	1.200	1.390	11362	N/A	N/A	N/A
46-14	Dry Extended Detention Basins	Springettsbury	Kreutz	39.981303	-76.651569	7/26/2010	PAG2006703034R-1	YES	2/YR MIN.	YES	PRIVATE	1.200	1.390	11362	N/A	N/A	N/A
46-13	Dry Extended Detention Basins	Springettsbury	Kreutz	39.979595	-76.653473	8/17/2010	PAG2006703034R-1	YES	2/YR MIN.	YES	PRIVATE	1.600	1.200	5009	N/A	N/A	N/A
46-52	Dry Extended Detention Basins	Springettsbury	Mill	39.976579	-76.670476	3/31/2014	N/A	YES	4/YR MIN.	YES	PRIVATE	0.259	0.066	1633	N/A	N/A	N/A
46-1	Dry Extended Detention Basins	Springettsbury	Kreutz	39.984714	-76.626400	9/6/2006	PAR10Y519	YES	2/YR MIN.	YES	PRIVATE	20.160	22.770	1437	N/A	N/A	N/A
46-2	Dry Extended Detention Basins	Springettsbury	Mill	39.976403	-76.696167	11/30/2007	PAG2006706036	YES	2/YR MIN.	YES	PRIVATE	1.160	0.250	422	N/A	N/A	N/A
46-39	Dry Extended Detention Basins	Springettsbury	Codorus	39.989167	-76.681528	9/1/2015	PAG2006708058	YES	4/YR MIN.	YES	PRIVATE	0.180	0.470	799	N/A	N/A	N/A
46-40	Dry Extended Detention Basins	Springettsbury	Codorus	39.989556	-76.681500	9/2/2015	PAG2006708058	YES	4/YR MIN.	YES	PRIVATE	0.642	4.480	428	N/A	N/A	N/A
												47.521	***44.876***				
46-4	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.980810	-76.666486	8/18/2008	PAG2006707049	YES	After every rainfall >1"	YES	PRIVATE	20.820	11.810	8581	N/A	N/A	N/A
46-8	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.987372	-76.684381	5/11/2010	PAG2006708050	YES	2/YR MIN.	YES	PRIVATE	0.010	0.190	3877	N/A	N/A	N/A
46-24	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.980889	-76.694611	2/9/2012	PAG2006710030	YES	1/YR MIN.	YES	PRIVATE	3.810	1.880	12142	N/A	N/A	N/A
46-27	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.978222	-76.677750	12/13/2012	PAG006711057	YES	4/YR MIN.	YES	PRIVATE	1.620	2.390	11754	N/A	N/A	N/A
46-34	Infiltration practices w/Sand, Veg.	Springettsbury	Codorus	39.983019	-76.722685	10/4/2013	PAG2006707043R	YES	After every rainfall >1"	YES	PRIVATE	0.300	1.050	888	N/A	N/A	N/A
46-42	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.982161	-76.711617	4/16/2016	N/A	YES	2/YR MIN.	YES	PRIVATE	0.740	0.370	3086	N/A	N/A	N/A
46-44	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.976539	-76.675172	8/11/2010	PAG02006709048	YES	12/YR MIN.	YES	PRIVATE	3.000	0.730	3591	N/A	N/A	N/A
46-36	Infiltration practices w/Sand, Veg.	Springettsbury	Kreutz	39.986072	-76.641208	6/29/2009	PAG2006703022-1	YES	2/YR MIN.	YES	PRIVATE	1.040	0.800	6857	N/A	N/A	N/A
46-37	Infiltration practices w/Sand, Veg.	Springettsbury	Kreutz	39.985933	-76.640314	6/29/2009	PAG2006703022-2	YES	2/YR MIN.	YES	PRIVATE	0.890	0.710	3594	N/A	N/A	N/A
46-35	Infiltration practices w/Sand, Veg.	Springettsbury	Codorus	39.996986	-76.721280	5/7/2014	PAG2006707043R	YES	After every rainfall >1"	YES	PRIVATE	2.920	7.460	19779	N/A	N/A	8241
46-53	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.971447	-76.666593	9/15/2014	N/A	YES	2/YR MIN.	YES	PRIVATE	0.079	0.000	639	N/A	N/A	1449
46-54	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.973055	-76.688375	10/17/2013	N/A	YES	2/YR MIN.	YES	PRIVATE	0.090	0.000	504	N/A	N/A	1008
46-55	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.973729	-76.672131	4/20/2015	N/A	YES	4/YR MIN.	YES	PRIVATE	0.415	0.088	4591	N/A	N/A	14922
46-56	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.976156	-76.668295	8/11/2011	N/A	YES	2/YR MIN.	YES	PRIVATE	0.517	0.163	2304	N/A	N/A	8064
46-57	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.981453	-76.703500	8/30/2012	N/A	YES	4/YR MIN.	YES	PRIVATE	0.075	0.155	152	N/A	N/A	489

Springettsbury Township		Best contact person/number if questions about BMP: John Luciani, First Capitol Engineering, 717-845-3277; johnl@fcap.com										Site Data					
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BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
46-58	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.981427	-76.703222	1/30/2016	N/A	YES	4/YR MIN.	YES	PRIVATE	0.044	0.196	152	N/A	N/A	489
46-59	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.981407	-76.702937	1/30/2016	N/A	YES	4/YR MIN.	YES	PRIVATE	0.044	0.197	152	N/A	N/A	489
46-9	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.987414	-76.684069	5/11/2010	PAG2006708050	YES	2/YR MIN.	YES	PRIVATE	0.400	0.070	2080	N/A	N/A	6240
46-45	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.976242	-76.675328	8/11/2010	PAG02006709048	YES	12/YR MIN.	YES	PRIVATE	0.150	0.000	1326	N/A	N/A	1101.6
46-10	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.987381	-76.684372	5/11/2010	PAG2006708050	YES	2/YR MIN.	YES	PRIVATE	0.810	0.090	2390	N/A	N/A	7170
46-46	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.975997	-76.675200	8/11/2010	PAG02006709048	YES	12/YR MIN.	YES	PRIVATE	0.154	0.000	1424	N/A	N/A	1182.6
46-47	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.975997	-76.675064	8/11/2010	PAG02006709048	YES	12/YR MIN.	YES	PRIVATE	0.166	0.000	1534	N/A	N/A	1274.1
46-48	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.975875	-76.674950	8/11/2010	PAG02006709048	YES	12/YR MIN.	YES	PRIVATE	0.213	0.000	1943	N/A	N/A	1605.8
46-43	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.977308	-76.668539	7/24/2015	PAG02006713018	YES	4/YR MIN.	YES	PRIVATE	1.372	0.281	11895	N/A	N/A	23790
46-49	Infiltration practices w/Sand, Veg.	Springettsbury	Mill	39.973767	-76.681819	12/12/2007	N/A	YES	4/YR MIN.	YES	PRIVATE	0.380	0.130	1062	N/A	N/A	4779
												40.060	***28.760***				
46-51	Filtering Practices	Springettsbury	Mill	39.976691	-76.676691	3/31/2014	N/A	YES	4/YR MIN.	YES	PRIVATE	1.029	0.279	6018	N/A	N/A	18055
46-3	Filtering Practices	Springettsbury	Mill	39.977344	-76.695353	11/30/2007	PAG2006706036	YES	2/YR MIN.	YES	PRIVATE	0.390	0.060	380	N/A	N/A	N/A
46-11	Filtering Practices	Springettsbury	Mill	39.982722	-76.671333	5/13/2010	PAG2006709003	YES	4/YR MIN.	YES	PRIVATE	1.670	2.640	4634	N/A	N/A	N/A
46-17	Filtering Practices	Springettsbury	Kreutz	39.978557	-76.659491	4/29/2011	PAG2006708076	YES	1/MTH MIN.	YES	PRIVATE	1.525	0.969	6917	N/A	N/A	23537
46-23	Filtering Practices	Springettsbury	Mill	39.983056	-76.671667	2/7/2012	PAG2006709004	YES	4/YR MIN.	YES	PRIVATE	1.560	2.020	16435	N/A	N/A	N/A
46-25	Filtering Practices	Springettsbury	Mill	39.977877	-76.674063	8/24/2012	PAG02006712018	YES	After every rainfall >1"	YES	PRIVATE	1.000	0.160	2135	N/A	N/A	N/A
46-28	Filtering Practices	Springettsbury	Mill	39.987000	-76.672667	8/29/2013	PAG02006712062	YES	2/YR MIN.	YES	PRIVATE	0.800	0.360	7224	N/A	N/A	N/A
												7.974	***6.488***				
46-5	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Mill	39.981169	-76.665628	8/18/2008	PAG2006707049	YES	After every rainfall >1"	YES	PRIVATE	6.070	0.000	5485	N/A	N/A	N/A
46-7	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Mill	39.975246	-76.666066	4/29/2010	PAG2006709011	YES	After every rainfall >1"	YES	PRIVATE	1.400	4.060	14032	N/A	N/A	N/A
46-21	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Mill	39.990200	-76.715421	10/17/2011	PAG2006710003	YES	4/YR MIN.	YES	PRIVATE	24.320	16.770	108165	N/A	N/A	N/A
46-22	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Codorus	39.984197	-76.716931	7/13/2012	PAG2006710003	YES	4/YR MIN.	YES	PRIVATE	8.430	3.650	47195	N/A	N/A	N/A
46-26	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Mill	39.978222	-76.674000	12/16/2012	PAG02006712018	YES	After every rainfall >1"	YES	PRIVATE	0.160	0.090	440	N/A	N/A	N/A
46-41	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Kreutz	39.983681	-76.649356	9/22/2015	PAG02006703034R-2	YES	4/YR MIN.	YES	PRIVATE	0.780	0.750	427	N/A	N/A	N/A
46-50	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Kreutz	39.979796	-76.631964	6/10/2014	N/A	YES	2/YR MIN.	YES	PRIVATE	0.294	1.700	1633	N/A	N/A	N/A
46-15	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Kreutz	39.980245	-76.652201	7/11/2014	PAG2006703034R-1	YES	2/YR MIN.	YES	PRIVATE	0.990	0.050	816	N/A	N/A	N/A
46-18	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Kreutz	39.978223	-76.659476	5/11/2011	PAG2006708076	YES	1/MTH MIN.	YES	PRIVATE	0.510	0.323	980	N/A	N/A	882

Springettsbury Township		Best contact person/number if questions about BMP: John Luciani, First Capitol Engineering, 717-845-3277; johnl@fcap.com										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
46-29	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Mill	39.987194	-76.672722	10/10/2013	PAG02006712062	YES	2/YR MIN.	YES	PRIVATE	0.180	0.060	1062	N/A	N/A	N/A
46-16	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Kreutz	39.980812	-76.652047	7/12/2014	PAG2006703034R-1	YES	2/YR MIN.	YES	PRIVATE	0.180	0.120	937	N/A	N/A	N/A
46-19	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Kreutz	39.978557	-76.659491	5/11/2011	PAG2006708076	YES	1/MTH MIN.	YES	PRIVATE	0.510	0.323	500	N/A	N/A	450
46-30	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Mill	39.987076	-76.672325	10/11/2013	PAG02006712062	YES	2/YR MIN.	YES	PRIVATE	0.120	0.031	353	N/A	N/A	N/A
46-20	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Kreutz	39.978347	-76.660419	5/11/2011	PAG2006708076	YES	1/MTH MIN.	YES	PRIVATE	0.510	0.323	560	N/A	N/A	504
46-31	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Mill	39.987222	-76.672278	10/12/2013	PAG02006712062	YES	2/YR MIN.	YES	PRIVATE	0.046	0.020	308	N/A	N/A	N/A
46-32	Bioretention/ Raingarden (A/B soils w/o underdrain)	Springettsbury	Mill	39.987119	-76.672068	10/13/2013	PAG02006712062	YES	2/YR MIN.	YES	PRIVATE	0.366	0.150	1637	N/A	N/A	N/A
												44.866	***28.420***				
46-38	Bioswale	Springettsbury	Kreutz	39.985167	-76.642269	6/29/2009	PAG2006703022-3	YES	1/YR MIN.	YES	PRIVATE	**0.380**	**2.880**	4720	N/A	N/A	N/A

West Manchester Township		Best contact person/number if questions about BMP: Zane Williams 717-792-3505										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP Still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
51-7	Infiltration Practices w/Sand, Veg.	West Manchester	Honey Run	39.9281	-76.83267	10/29/2014	PAG 02-0067-14-033	Inspect parking area and inlets 4 times a year and sweep parking area and vaccuum inlets as needed. Inspect detention/infiltration facility twice a year for sediment buildup, erosion, debris and trash. Inspect all pipes after major rain event.	4 times year/ twice a year	yes	WMTWP	0.47	0.26	4136			
51-3	Infiltration Practices w/Sand, Veg.	West Manchester	L. Conewago	39.97872	-76.78894	12/1/2015	PAG 02-0067-13-048	Stormwater conveyance cleaned and repaired as needed, inspect outfall structure, infiltration basins mowed, litter removed, stabilize eroded areas, inspect wet areas, disc or aereate bottom. Every 5 years scrape bottom and remove sediment, seed or sod to restore ground cover.	as need / annually/ every 5 yrs.	yes	OWNER / WMTWP	1.67	1	10548			
51-8	Infiltration Practices w/Sand, Veg.	West Manchester	Codorus Creek	39.94493	-76.79382	16-Sep	PAG 02-0067-14-048	Rip rap aprons inspected annually or after major rain event, street sweeping twice a year, Bio areas inspect outlet structure, slopes for erosion, catch basins for debris, check for 72 hr drain time, inspect/remove sediment and during drought conditions water plants and trees. Water quality inlets inspect for sediment and removed as needed quarterly, replace inlet filters annually. Vegetated swale inspected annually or after major rain event.	quarterly/annually	yes	OWNER/WMTWP	9.22	8.5	99706			
51-17	Infiltration Practices w/Sand, Veg.	West Manchester	Codorus Creek	39.96872	-76.78301	12/8/2014	PAG 02-0067-07-071	Mowing, seeding scoured areas, remove silt from structures, repair structural damage.	as needed	yes	OWNER / WMTWP	1.91		56050			
51-6	Infiltration Practices w/Sand, Veg.	West Manchester	Codorus Creek	39.95984	-76.76983	1/28/2015	PAG 02-0067-14-008	Clean debris from inlets and catch basins, repair as needed, inspect outfall structures yearly, inspect conveyance system twice a year and remove sediment, maintain vegetative cover tributarty to inlets.	twice a year	yes	OWNER / WMTWP	6.57	1.68	25037			
51-12	Infiltration Practices w/Sand, Veg.	West Manchester	Willis Run	39.96677	-76.77217	16-Nov	PAG 02-0067-13-010-1	Twice a year or after major rain event, inspect BMPs including vegetation, outlet structure, drainage area and perform any maintenance or repairs as needed. Remove trash, debris, and sediment from bmps, outlet structures, and cleanouts.	twice a year	yes	OWNER / WMTWP	12.25	5.68	94989			
51-11	Infiltration Practices w/Sand, Veg.	West Manchester	Honey Run	39.93421	-76.82196	16-Oct	PAG 02-0067-14-067	Inspect BMPs annually or after a major rain event, Water quality inlets to be cleaned twice a year, Infiltration Basins and Detention Basins to be inspected twice per year or after major rain event, removing trash, debris, and sediment. Maintain grass areas in good conditions. Street sweeping shall be done twice a year.	annually, twice a year	yes	OWNER / WMTWP	29.786	16.814	90529			
51-14	Infiltration Practices w/Sand, Veg.	West Manchester	W. Branch Codo	39.92975	-76.82733	8/28/2015	PAG 02-0067-15-023	Twice a year or after Major rain event inspect seepage trench, cleanouts, inlet structures, and drainage areas for sediment and erosion. Maintain grass areas as needed to maintain 3-6" coverage.	twice a year	yes	OWNER / WMTWP	1.61	0.78	7500			
51-13	Infiltration Practices w/Sand, Veg.	West Manchester	Willis Run	39.97548	-76.77121	7/5/2016		Inspect seepage trench annually or after major rain event, maintain grass areas in good condition.	annually	yes	OWNER / WMTWP	0.06		2926			
51-15	Infiltration Practices w/Sand, Veg.	West Manchester	Codorus Creek	39.94987	-76.78512	2015	PAG 02-0067-15-046	Inspect of on-site stormwater and downspouts should be inspected monthly or after a major rain event, maintain water quality swales by keeping mowed and trash and debris removed.	monthly/ as needed	yes	OWNER / WMTWP	3.19	0.84	7125			
51-10	Infiltration Practices w/Sand, Veg.	West Manchester	L. Conewago	39.98434	-76.7787	2015	PAG 02-0067-10-001R	Maintain vegetation in good condition mowing as necessary, inspect for erosion and sediment, repair and remove sediment as needed. Remove debris and sediment from inlets twice a tear, check for 72 hr drain down.	twice a year	yes	OWNER / WMTWP	0.3	0.23	1259			
51-9	Infiltration Practices w/Sand, Veg.	West Manchester	Codorus Creek	39.95979	-76.76096	6/30/2015		Water quality inlets, seepage pit, tributary areas to be inspected 4 times a year or after major rain event, sediment and debris removed as needed.	4 times per year	yes	OWNER / WMTWP	0.14		2250			
												67.176	***35.784***				

West Manchester Township		Best contact person/number if questions about BMP: Zane Williams 717-792-3505										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP Still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
51-4	Bioretention/Raingarden (A/B soils w/o underdrain)	West Manchester	Willis Run	39.97289	-76.77886	7/21/2015	PAG 02-0067-13-039	Inspect detention basins, rain gardens, swales, and overland areas 4 times a year or after major storm and remove trash, debris and sediment. Streets vacuum on as needed basis. Inlets should be inspected twice a year and cleaned out as needed. Maintain rain garden plants yearly and keep grass mowed as needed.	4 times year/ twice a year	yes	OWNER / WMTWP	5.25	22.86	26677			
51-1	Bioretention/Raingarden (A/B soils w/o underdrain)	West Manchester	Willis Run	39.97982	-76.76066	11/28/2012		Inspect after each major rain event and remove debris and sediment as needed.	twice a year	yes	OWNER / WMTWP	0.58	0.41	2150			
51-2	Bioretention/Raingarden (A/B soils w/o underdrain)	West Manchester	Codorus Creek	39.94731	-76.77585	7/21/2014	PAG 02-0067-12-019	Bio areas shall be mulched if needed, check for sediment build up and removed, inspect for invasive plants, water if drought conditions. Pond should be inspected 4 times ayear or after 1" rain event for clogging, debris, and sediment. Pond inspected once per year for erosion and invasive species.	4 times year/annually	yes	OWNER / WMTWP	1.874	4.24	36808			
51-16	Bioretention/Raingarden (A/B soils w/o underdrain)	West Manchester	Codorus Creek	39.94378	-76.77106	2008		Inspect Bio areas,for sediment, vegetation condition, trash, and spillway for erosion. Clean inlet and piping.	annually	yes	OWNER / WMTWP	3.9	2.6	19338			
												11.604	***30.11***				
51-5	Permeable Pavement w/o Sand or Veg. (A/B Soils w/underdrain	West Manchester	Codorus Creek	39.95122	-76.78631	3/31/2015	PAG 02-0067-13-041	Street vaccuum and clean all sump inlets yearly.	twice a year	yes	OWNER / WMTWP	**2.66**	**1.94**	36195			

West Manheim Township		Best contact person/number if questions about BMP: Chris Toms, Engineer (717) 814-4566 cwt@csdavidson.com										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
52-1	Infiltration Practices w/Sand, Veg.	West Manheim Township	Indian Run	39.76342	-76.96142	10/20/2015	PAG02006715063	Inspection	Twice per year and after major storm events greater than 1 inch	Yes	ANCB	0.08	0.2295				1050
52-2	Infiltration Practices w/Sand, Veg.	West Manheim Township	Indian Run	39.763566	-76.960569	10/20/2015	PAG02006715063	Inspection	Twice per year and after major storm events greater than 1 inch	Yes	ANCB	0.321	0.08				3288
52-3	Infiltration Practices w/Sand, Veg.	West Manheim Township	Indian Run	39.766673	-76.961392	8/3/2015	PAG02006715025	Inspection	Twice per year and after major storm events greater than 1 inch	Yes	Peoples Bank	0.496	0.409				9471
52-5	Infiltration Practices w/Sand, Veg.	West Manheim Township	South Branch Conewago Creek	39.759832	-76.983987	5/11/2016	could not find	Inspection	Twice per year and after major storm event	Yes	Hanover YMCA	0.563	3.548				11580
52-6	Infiltration Practices w/Sand, Veg.	West Manheim Township	South Branch Conewago Creek	39.759652	-76.983353	5/11/2016	could not find	Inspection	Twice per year and after major storm event	Yes	Hanover YMCA	0.822	0.309				7200
52-7	Infiltration Practices w/Sand, Veg.	West Manheim Township	South Branch Conewago Creek	39.759242	-76.984372	5/11/2016	could not find	Inspection	Twice per year and after major storm event	Yes	Hanover YMCA	0.644	0.00				3480
52-8	Infiltration Practices w/Sand, Veg.	West Manheim Township	South Branch Conewago Creek	39.758894	-76.983379	5/11/2016	could not find	Inspection	Twice per year and after major storm event	Yes	Hanover YMCA	1.706	1.356				10080
52-9	Infiltration Practices w/Sand, Veg.	West Manheim Township	South Branch Conewago Creek	39.759123	-76.984435	5/11/2016	could not find	Inspection	Four times per year and after major storm events greater than 2 inches	Yes	Hanover YMCA	4.097	9.958	33002			
												8.729	***15.8895***				
52-4	Permeable Pavement w/Sand or Veg (A/B Soils w/o UD	West Manheim Township	Indian Run	39.76674	-76.960895	8/3/2015	PAG02006715025	Inspection	Twice per year and after major storm events greater than 1 inch	Yes	Peoples Bank	**0.087**	**0.00**	3790			

NOTE: Listed below are the deed book and pages of each plans that we previously sent the pollutant reductions for. All required NPDES permits, but I do not have the permit number as these were obtained by the applicant. I believe in all cases the PCSM plan was recorded and hopefully it should be able to answer any questions relating to Permit # and the O&M agreement. All BMPs were functioning when inspected after construction, but O&M responsibilities have now fallen to the owner. Please note that the YMCA project is still being constructed. If you have any further questions please let us know.

ANCB Bank - Deed Book – GG; Deed Page - 4171
People Bank - Deed Book – 2327; Deed Page - 7694
South Branch YMCA - Deed Book – 2377; Deed Page - 2260
Patricia A Kulacki - Deed Book – 2343; Deed Page - 7084

Windsor Borough		Best contact person/number if questions about BMP: John Runge - Gordon L. Brown & Associates, Inc. 717-741-4621										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
89-1	Stream Restoration	Windsor Boro	Susquehanna	39.91571	-76.58159	8&9/2016	N/A	Pending	Bi-annual	Yes	Windsor Boro	187.2	576.31	1400	**Approx.500'**	10'x400'	0

Windsor Township		Best contact person/number if questions about BMP: Kipp Allison (717) 244-3512 kallison@windsortwp.com										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
53-61	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'27.71" N	-76°36'30.32"	06/2008	PAG2006707012-1R	Clear of trash & debris	Biannually & post storm	Yes		0.835	1.265	9,225			
53-62	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'15.77" N	-76°36'37.22"	06/2008	PAG2006707012-1R	Clear of trash & debris	Biannually & post storm	Yes		1.02	1.26	18,040			
53-63	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'28.63" N	-76°36'32.66"	06/2008	PAG2006707012-1R	Clear of trash & debris	Biannually & post storm	Yes		0.849	2.721	8,800			
53-64	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'11.63" N	-76°36'40.04"	06/2008	PAG2006707012-1R	Clear of trash & debris	Biannually & post storm	Yes		0.635	4.365	10,200			
53-65	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'23.40" N	-76°36'40.64"	06/2008	PAG2006707012-1R	Clear of trash & debris	Biannually & post storm	Yes							These three basins are connected to one drainage area
53-66	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'28.72" N	-76°36'41.73"	06/2008	PAG2006707012-1R	Clear of trash & debris	Biannually & post storm	Yes		2.29	16.16	38,459			These three basins are connected to one drainage area
53-67	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'27.42" N	-76°36'44.53"	06/2008	PAG2006707012-1R	Clear of trash & debris	Biannually & post storm	Yes							These three basins are connected to one drainage area
53-53	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°55'25.23" N	-76°35'06.61"	11/2014	N/A	Visual Inspection	Biannually & after 1" storm	Yes		0.003	0	0			2' x 26' x 1' (52)
53-54	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°55'24.96" N	-76°35'23.70"	11/2014	N/A	Visual Inspection	Biannually & after 1" storm	Yes		0.007	0	0			2' x 60' x 1' (120)
53-58	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°53'28.54" N	-76°35'30.66"	10/2008	N/A	Clear of trash	Daily	Yes		0.72	0.17	400			12.5' x 100' x 4' (5,000)
53-59	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°54'08.44" N	-76°34'50.14"	10/20016	N/A	Inspect for Sediment & Debris	Biannually & after 1" storm	Yes		0.14	0.02	270			90' x 25' x 1' (2,250)
53-51	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°53'32.92" N	-76°33'53.12"	2011	N/A	Inspect for Sediment & Debris	Twice year & after 1" storm	Yes		0.35	0.64	1,360			14' x 124' x 2' (3,472)
53-56	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°57'37.25" N	-76°39'12.30"	08/2011	N/A	Visual Inspection	Biannually & after 1" storm	Yes		0.16	0	0			22' x 48' x 1.67 (1,764)
53-1	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'24.26" N	-76°36'29.46"	9/11/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0309	0				14' x 22.5' x 4.5' (1,417.5)
53-2	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'23.78" N	-76°36'29.40"	11/7/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0222	0				12' x 27' x 4.5' (1,458)
53-3	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'23.26" N	-76°36'29.33"	9/11/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0278	0				12' x 27' x 4.5' (1,458)
53-4	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'21.09" N	-76°36'31.18"	11/7/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0386	0				12' x 27' x 4.5' (1,458)

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BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
53-5	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'19.93" N	-76°36'33.33	7/22/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0234	0				12' x 27' x 4.5' (1,458)
53-6	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'19.14" N	-76°36'34.83"	10/10/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0318	0				12' x 27' x 4.5' (1,458)
53-7	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'18.60" N	-76°36'35.82"	12/10/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0278	0				12' x 27' x 4.5' (1,458)
53-8	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'18.37" N	-76°36'36.38"	11/17/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0278	0				12' x 27' x 4.5' (1,458)
53-9	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'18.21" N	-76°36'36.99"	1/14/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0334	0				12' x 27' x 4.5' (1,458)
53-10	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'18.12" N	-76°36'37.62"	11/17/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0304	0				12' x 27' x 4.5' (1,458)
53-11	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'22.73" N	-76°36'31.60"	9/11/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0334	0				12' x 27' x 4.5' (1,458)
53-12	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'23.31" N	-76°36'31.33"	12/2/2008	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.027	0				12' x 27' x 4.5' (1,458)
53-13	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'20.71" N	-76°36'31.86"	9/21/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0382	0				12' x 27' x 4.5' (1,458)
53-14	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'20.18" N	-76°36'32.84"	5/27/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0821	0				12' x 27' x 4.5' (1,458)
53-15	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'19.39" N	-76°36'34.33"	8/4/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.031	0				30' x 10' x 4.5' (1,350)
53-16	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'18.87" N	-76°36'35.33"	6/22/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0238	0				13' x 29' x 4.5' (1696.5)
53-17	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'14.98" N	-76°36'40.49"	12/7/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0274	0				12' x 27' x 4.5' (1,458)
53-18	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'19.59" N	-76°36'38.96"	4/2/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0278	0				12' x 27' x 4.5' (1,458)
53-19	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'19.71" N	-76°36'37.45"	7/27/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0262	0				12' x 27' x 4.5' (1,458)
53-20	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'20.22" N	-76°36'36.31"	5/27/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0269	0				11' x 30' x 4.5' (1,458)
53-21	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'23.79" N	-76°36'31.42"	6/19/2009	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0278	0				11' x 29' x 4.5' (1,435.5)
53-22	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'15.90" N	-76°36'40.55"	12/2/2010	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0269	0				12' x 27' x 4.5' (1,458)
53-23	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'18.24" N	-76°36'40.61"	3/1/2010	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0256	0				12' x 27' x 4.5' (1,458)
53-24	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'19.59' N	-76°36'38.09"	3/8/2010	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0345	0				12' x 27' x 4.5' (1,458)
53-25	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'28.48" N	-76°37'01.37"	11/28/2011	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0261	0				12' x 27' x 4.5' (1,458)
53-26	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'19.90" N	-76°36'34.34"	11/17/2011	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0239	0				12' x 27' x 4.5' (1,458)
53-27	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'15.31" N	-76°36'39.50"	8/11/2014	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0334	0				12' x 27' x 4.5' (1,458)

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BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
53-28	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'23.87" N	-76°37'01.22"	10/16/2012	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0269	0				12' x 27' x 4.5' (1,458)
53-29	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'24.62" N	-76°36'30.63"	6/11/2011	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0269	0				14' x 39' x 4' (2,184)
53-30	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'17.13" N	-76°36'39.71"	4/4/2011	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0331	0				10' X 40' X 4.5' (1,800)
53-31	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'18.41" N	-76°36'39.68"	5/4/2011	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0332	0				12' x 27' x 4.5' (1,458)
53-32	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'24.62" N	-76°36'30.63"	11/12/2012	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0243	0				12' x 27' x 4.5' (1,458)
53-33	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'22.27" N	-76°36'29.45"	2/15/2013	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0288	0				8' x 80' x 4' (2,560)
53-34	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'17.60" N	-76°36'38.77"	2/1/2013	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0288	0				10' x 32' x 4.5' (1,440)
53-35	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'17.19" N	-76°36'38.74"	7/8/2013	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0288	0				12' x 27' x 4.5' (1,458)
53-36	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'17.77" N	-76°36'39.64"	3/20/2014	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0326	0				12' x 27' x 4.5' (1,458)
53-37	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'18.41" N	-76°36'39.68"	7/2/2013	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0224	0				12' x 27' x 4.5' (1,458)
53-38	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'16.91" N	-76°36'39.58"	6/16/2014	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0273	0				12' x 27' x 4.5' (1,458)
53-39	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'19.01" N	-76°36'36.20"	10/9/2014	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0274	0				12' x 28' x 4.5' (1,512)
53-40	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°56'16.98" N	-76°36'39.59"	12/7/2015	PAG2006707012-1R	Visual Inspection	Annually	Yes	Homeowner	0.0333	0				13' x 25' x 4' (1,300)
53-52	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°55'24.39" N	-76°35'07.00"	12/2014	N/A	Visual Inspection	Biannually & after 1" storm	Yes		0.04	0	0			20' x 26' x 1.5' (780)
53-55	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°53'33.82" N	-76°35'23.70"		PAG2006708062	Inspect & clean inlets	Quarterly	Yes		2.79	0.13	0			65' x 120' x 3' (23,400)
53-57	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°53'53.88" N	-76°35'50.33"	01/2014	N/A	Clean inlet structures clogging	Biannually & after 1" storm	Yes		0.07	0	0			14.5' x 14.5' x 4' (841)
53-60	Infiltration Practices w/Sand, Veg	Windsor Twp	Kreutz-Muddy Creek	39°53'36.84" N	-76°35'26.63"	2010	PAG2006708062-1	Accum. Of Settlement	Quarterly	Yes		2.66	0.23	0			200' x 16' x 4.67' (14,944)
												13.7789	***26.961***				
53-41	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'14.77" N	-76°37'05.86"	11/26/2013	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.0682	0.0113	683.1			
53-42	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'14.72" N	-76°37'05.86"	2/25/2014	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.059	0.0135	591.3			
53-43	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'15.10" N	-76°37'01.07"	5/26/2015	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.0584	0.0107	584.66			

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BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
53-44	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'10.74" N	-76°36'54.42"	12/2015	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.0704	0.0141	705.41			
53-45	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'11.89" N	-76°36'57.68"	11/2015	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.0625	0.0053	625.83			
53-46	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'15.75" N	-76°37'01.93"	8/2015	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.0677	0.0172	677.81			
53-47	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'14.77" N	-76°37'05.86"	06/2015	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.0632	0.0147	632.96			
53-48	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'14.72" N	-76°37'05.86"	12/2015	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.07	0.0207	701.27			
53-49	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'11.89" N	-76°36'57.68"	11/2015	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.0789	0.0148	790.51			
53-50	Bioretention/Raingarden (A/B Soils w/o underdrain)	Windsor Twp	Kreutz-Muddy Creek	39°57'11.89" N	-76°36'57.68"	09/2016	PAG02006708068R	Inspect for debris & plant health	Quarterly	Yes	Homeowner	0.0669	0.0148	670.45			
												0.6652	***0.1371***				

York City		Best contact person/number if questions about BMP: Derek Rinaldo, C.S. Davidson, 717-846-4805									Site Data					
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BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities & Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
95-7	Bioretention/ Raingarden (A/B soils w/o underdrain)	York City	UNT to Codorus Creek (Poorhouse Run)	39.968500	-76.716376	2013	UNK	Per Design Plan and/or O&M Agr	Yes		0.03	0.01	162	N/A	N/A	N/A
95-8	Bioretention/ Raingarden (A/B soils w/o underdrain)	York City	UNT to Codorus Creek (Poorhouse Run)	39.968690	-76.715955	2013	UNK	Per Design Plan and/or O&M Agr	Yes		0.04	0.01	138	N/A	N/A	N/A
95-15	Bioretention/ Raingarden (A/B soils w/o underdrain)	York City	UNT to Codorus Creek (Poorhouse Run)	39.956620	-76.718747	2012	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes				926	N/A	N/A	N/A
95-17	Bioretention/ Raingarden (A/B soils w/o underdrain)	York City	Willis Run	39.969903	-76.734918	2011	UNK	Per Design Plan and/or O&M Agr	Yes		0.02	0.11	367	N/A	N/A	N/A
95-18	Bioretention/ Raingarden (A/B soils w/o underdrain)	York City	Willis Run	39.969454	-76.735922	2011	UNK	Per Design Plan and/or O&M Agr	Yes		0.21	0.03	312	N/A	N/A	N/A
95-22	Bioretention/ Raingarden (A/B soils w/o underdrain)	York City	Willis Run	39.978484	-76.757430	2012	UNK	Per Design Plan and/or O&M Agr	Yes		1.095	0.114	1086	N/A	N/A	N/A
95-31	Bioretention/ Raingarden (A/B soils w/o underdrain)	York City	UNT to Codorus Creek (Tyler Run)	39.949847	-76.732831	2011	UNK	Per Design Plan and/or O&M Agr	Yes		0.775	1.125	1235	N/A	N/A	N/A
95-32	Bioretention/ Raingarden (A/B soils w/o underdrain)	York City	UNT to Codorus Creek (Tyler Run)	39.949664	-76.732405	2011	UNK	Per Design Plan and/or O&M Agr	Yes		0.375	0.415	2185	N/A	N/A	N/A
95-37	Bioretention/ Raingarden (A/B soils w/o underdrain)	York City	UNT to Willis Run	39.980155	-76.750617	2014	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.06	0.008	616	N/A	N/A	N/A
											2.605	***1.822***				
95-30	Dry Extended Detention Basins	York City	UNT to Willis Run	39.979953	-76.757611	2013	UNK	Per Design Plan and/or O&M Agr	Yes		1.47	1.2	3440	N/A	N/A	N/A
95-39	Dry Extended Detention Basins	York City	UNT to Willis Run	39.990045	-76.745556	2013	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		43.87	32.3	87552	N/A	N/A	N/A
95-41	Dry Extended Detention Basins	York City	UNT to Codorus Creek (Tyler Run)	39.948881	-76.731213	2013	UNK	Per Design Plan and/or O&M Agr	Yes		1.285	1.695	4370	N/A	N/A	N/A
											46.625	***35.195***				
95-3	Filtering Practices	York City	Willis Run	39.979074	-76.752769	2013	UNK	Per Design Plan and/or O&M Agr	Yes		1.11	0.19	N/A	N/A	N/A	N/A
95-4	Filtering Practices	York City	Poorhouse Run	39.955074	-76.722658	2012	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.29	0	N/A	N/A	N/A	N/A
95-10	Filtering Practices	York City	UNT to Codorus Creek (Poorhouse Run)	39.968757	-76.715828	2013	UNK	Per Design Plan and/or O&M Agr	Yes		0.29	0	N/A	N/A	N/A	N/A
95-13	Filtering Practices	York City	Codorus Creek	39.956000	-76.734000	2013	UNK	Per Design Plan and/or O&M Agr	Yes		2.962	2.159	N/A	N/A	N/A	N/A
95-16	Filtering Practices	York City	UNT to Codorus Creek	39.957854	-76.738287	2011	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.3	0	N/A	N/A	N/A	N/A
95-23	Filtering Practices	York City	UNT to Willis Run	39.978000	-76.757000	2012	UNK	Per Design Plan and/or O&M Agr	Yes		0.3	0.014	N/A	N/A	N/A	N/A
95-25	Filtering Practices	York City	Codorus Creek	39.956551	-76.749240	2010	UNK	Per Design Plan and/or O&M Agr	Yes		0.123	0	N/A	N/A	N/A	N/A
95-27	Filtering Practices	York City	UNT to Codorus Creek	39.981900	-76.756400	2010/2014	UNK	Per Design Plan and/or O&M Agr	Yes		2.32	1.88	N/A	N/A	N/A	N/A
95-42	Filtering Practices	York City	UNT to Codorus Creek (Tyler Run)	39.948389	-76.730755	2013	UNK	Per Design Plan and/or O&M Agr	Yes		0.28	0.09	N/A	N/A	N/A	N/A
											7.975	***4.333***				

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		Location (Lat/Long provide decimal to 6 places)				Installation		O&M			Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities & Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
95-1	Infiltration practices w/Sand, Veg.	York City	UNT to Codorus Creek	39.966404	-76.714576	2012	N/A	Per Design Plan and/or O&M Agr	Yes		0.021	0	N/A	N/A	N/A	270
95-19	Infiltration practices w/Sand, Veg.	York City	Willis Run	39.970358	-76.735245	2011	UNK	Per Design Plan and/or O&M Agr	Yes		0.28	0.24	N/A	N/A	N/A	880
95-20	Infiltration practices w/Sand, Veg.	York City	UNT to Codorus Creek (Poorhouse Run)	39.963937	-76.703224	2013	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.022	0	N/A	N/A	N/A	216
95-21	Infiltration practices w/Sand, Veg.	York City	UNT to Codorus Creek (Poorhouse Run)	39.963905	-76.703207	2013	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.022	0	N/A	N/A	N/A	216
95-24	Infiltration practices w/Sand, Veg.	York City	Codorus Creek	39.956050	-76.749123	2010	UNK	Per Design Plan and/or O&M Agr	Yes		1	0.116	1203	N/A	N/A	N/A
95-33	Infiltration practices w/Sand, Veg.	York City	UNT to Codorus Creek (Tyler Run)	39.950810	-76.733170	2011	UNK	Per Design Plan and/or O&M Agr	Yes		1	1.31	5438	N/A	N/A	N/A
95-34	Infiltration practices w/Sand, Veg.	York City	UNT to Codorus Creek	39.956841	-76.715515	2014	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.24	0	N/A	N/A	N/A	839
95-35	Infiltration practices w/Sand, Veg.	York City	UNT to Codorus Creek	39.956579	-76.715299	2014	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.22	0	N/A	N/A	N/A	563
95-36	Infiltration practices w/Sand, Veg.	York City	UNT to Willis Run	39.986771	-76.751637	2013	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.086	0.018	N/A	N/A	N/A	238
95-38	Infiltration practices w/Sand, Veg.	York City	UNT to Willis Run			2014	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.06	0.008	N/A	N/A	N/A	206
95-44	Infiltration practices w/Sand, Veg.	York City	Codorus Creek	39.956789	-76.736297	2015	UNK	Per Design Plan and/or O&M Agr	Yes		0.028	0	N/A	N/A	N/A	307
											2.979	***1.692***				
95-14	Street Sweeping	York City	Codorus Creek	39.956000	-76.734000	2013	UNK	Per Design Plan and/or O&M Agr	Yes		0.839	0		N/A	N/A	N/A
95-29	Street Sweeping	York City	UNT to Codorus Creek	39.981900	-76.756400	n/a	UNK	Per Design Plan and/or O&M Agr	Yes		0.95	0	41556	N/A	N/A	N/A
											1.789	***0***				
95-2	Wet Pond and Wetlands	York City	Willis Run	39.979161	-76.752934	2013	PAG-02-0067-12-007	Per Design Plan and/or O&M Agr			0.109	0	N/A	N/A	N/A	7841
95-5	Wet Pond and Wetlands	York City	Poorhouse Run	39.955094	-76.722543	2012	N/A (< 1 AC)	Per Design Plan and/or O&M Agr	Yes		0.46	0.03	N/A	N/A	N/A	1025
95-9	Wet Pond and Wetlands	York City	UNT Cororus Creek (Poorhouse Run)	39.968867	-76.715909	2013	UNK	Per Design Plan and/or O&M Agr	Yes		0.27	0	N/A	N/A	N/A	534
95-11	Wet Pond and Wetlands	York City	Codorus Creek	39.956443	-76.733244	2013	UNK	Per Design Plan and/or O&M Agr	Yes		1.837	1.425	N/A	N/A	N/A	16463
95-12	Wet Pond and Wetlands	York City	Codorus Creek	39.956910	-76.733335	2013	UNK	Per Design Plan and/or O&M Agr	Yes		1.031	0.504	N/A	N/A	N/A	13229
95-26	Wet Pond and Wetlands	York City	UNT to Codorus Creek	39.981359	-76.757303	2010	UNK	Per Design Plan and/or O&M Agr	Yes		0.26	0.02	N/A	N/A	N/A	16685
95-28	Wet Pond and Wetlands	York City	UNT to Codorus Creek	39.982448	-76.755335	2014	UNK	Per Design Plan and/or O&M Agr	Yes		0.78	0.78	N/A	N/A	N/A	7860
95-43	Wet Pond and Wetlands	York City	Unt to Willis Run	39.990065	-76.746272	2014	UNK	Per Design Plan and/or O&M Agr	Yes		0.122	0	N/A	N/A	N/A	425
											4.869	***2.759***				

York County		Best contact person/number if questions about BMP: Barry Myers, York Couty Parks Department 717-840-7230 blmyers@yorkcountypa.gov										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M				Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
YC-1	Bioswale	Springettsbury	Kreutz	39.9892	-76.6512	Oct-15	No	Inspect and correct erosion problems, inspect for pools of standing water, inspect for litter	Within 48 hours after every major storm event (>3")	Yes	York County	***10.8***	***6.29***	11,400			

York Township		Best contact person/number if questions about BMP: Gary Milbrand											Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M					Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Last inspection Date	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
54-22	Bioretention-Raingarden (C/D soils w/ underdrain)	York Township	Unnamed Tributary	39.926404	-76.72005412	4/30/2012	PAG2006708075	Per O&M agr.	Per O&M agr.	6/19/2019	Yes	Property Owner	2.38	2.00				
54-50	Bioretention-Raingarden (C/D soils w/ underdrain)	York Township	Barshinger Creek	39.890565	-76.603171	11/10/2011	PAG2006710037	Per O&M agr.	Per O&M agr.	5/13/2016	Yes	Property Owner	0.00	0.85				
54-51	Bioretention-Raingarden (C/D soils w/ underdrain)	York Township	Barshinger Creek	39.890322	-76.603415	11/10/2011	PAG2006710037	Per O&M agr.	Per O&M agr.	5/13/2016	Yes	Property Owner	0.00	0.38				
													2.38	***3.23***				
54-1	Bioswale	York Township	UNT to Mill Creek	39.9137	-76.6711	7/1/2016	E&S only	Insp & Maintain as needed	Yearly & as needed	5/8/2019	Yes	York Township	0.46	0.53				1515
54-37	Bioswale	York Township	200 - Unnamed	39.9266631	-76.71732444	4/30/2012	PAG2006708075	Per O&M agr.	Per O&M agr.	6/19/2019	Yes	Property Owner	4.00	0.80				
54-38	Bioswale	York Township	200 - Unnamed	39.9256779	-76.71906655	4/30/2012	PAG2006708075	Per O&M agr.	Per O&M agr.	6/19/2019	Yes	Property Owner	0.00	0.29				
													4.46	***1.62***				
54-2	Dry Extended Detention Basins	York Township	Unnamed Tributary	39.910779	-76.682217	12/15/2015	E&S only	Per O&M agr.	Per O&M agr.	7/5/2019	Yes	Property Owner	1.99	0.45	~5850			7643
54-3	Dry Extended Detention Basins	York Township	Unnamed Tributary	39.9233	-76.6761	10/1/2015	E&S only	Insp & Maintain as needed	Yearly & as needed	5/9/2019	Yes	York Township	3.48	14.10	~15800			
54-4	Dry Extended Detention Basins	York Township	Unnamed Tributary	39.9206	-76.6787	10/1/2015	E&S only	Insp & Maintain as needed	Yearly & as needed	5/9/2019	Yes	York Township	1.42	2.94	~33290			
54-44	Dry Extended Detention Basins	York Township	300 - Unnamed	39.9423429	-76.6917115	3/12/2012	E&S only	Per O&M agr.	Per O&M agr.	3/12/2012	Yes	Property Owner	3.24	1.48				
54-45	Dry Extended Detention Basins	York Township	300 - Unnamed	39.9414057	-76.69133297	3/12/2012	E&S only	Per O&M agr.	Per O&M agr.	3/12/2012	Yes	Property Owner	1.93	0.00				
54-67	Dry Extended Detention Basins	York Township	Tributary Codorus	39.938517	-76.695407	12/23/2013	PAG2006708030	Per O&M agr.	Per O&M agr.	5/30/2014	Yes	Property Owner	1.71	0.46				
54-68	Dry Extended Detention Basins	York Township	Unnamed Tributary Codorus	39.938517	-76.695407	12/23/2013	PAG2006708030	Per O&M agr.	Per O&M agr.	5/30/2014	Yes	Property Owner	0.88	0.79			Includes dry ext. above -->	17329
													14.65	***20.22***				
54-52	Filter Strip Stormwater Treatment	York Township	Barshinger Creek	39.890453	-76.603019	11/10/2011	PAG2006710037	Per O&M agr.	Per O&M agr.	5/13/2016	Yes	Property Owner	0.00	0.85				
54-53	Filter Strip Stormwater Treatment	York Township	Barshinger Creek	39.890330	-76.603052	11/10/2011	PAG2006710037	Per O&M agr.	Per O&M agr.	5/13/2016	Yes	Property Owner	0.00	0.38				
													0.00	***1.23***				
54-5	Filtering Practices	York Township	Unnamed Tributary Mill Creek	39.9228	-76.681	10/1/2015	E&S only	Insp & Maintain as needed	Yearly & as needed	6/12/2019	Yes	York Township	0.01	0.04				
54-6	Filtering Practices	York Township	Tributary Lake Redman	39.908353	-76.700124	6/10/2015	E&S only	Per O&M agr.	Per O&M agr.	5/6/2019	Yes	Property Owner	0.01	0.18				
54-7	Filtering Practices	York Township	Tributary Lake Redman	39.908539	-76.70022	6/10/2015	E&S only	Per O&M agr.	Per O&M agr.	5/6/2019	Yes	Property Owner	0.00	0.10				
54-9	Filtering Practices	York Township	Tributary Lake Redman	39.908401	-76.700724	6/10/2015	E&S only	Per O&M agr.	Per O&M agr.	5/6/2019	Yes	Property Owner	0.07	0.01				

York Township		Best contact person/number if questions about BMP: Gary Milbrand											Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M					Drainage Area (acres)		BMP Information			
BMP ID	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Last inspection Date	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
													0.09	***0.33***				
54-8	Infiltration practices w/Sand, Veg.	York Township	Unnamed Tributary Lake Redman	39.908546	-76.700465	6/10/2015	E&S only	Per O&M agr.	Per O&M agr.	5/6/2019	Yes	Property Owner	0.24	0.19	2825			
54-17	Infiltration practices w/Sand, Veg.	York Township	Mill Creek	39.912911	-76.626817	7/21/2015	E&S only	Per O&M agr.	Per O&M agr.	7/21/2015	Yes	Property Owner	1.25	0.71	2858			
54-18	Infiltration practices w/Sand, Veg.	York Township	Mill Creek	39.912911	-76.626817	7/21/2015	E&S only	Per O&M agr.	Per O&M agr.	7/21/2015	Yes	Property Owner	0.08	0.02	600			
54-19	Infiltration practices w/Sand, Veg.	York Township	Mill Creek	39.912911	-76.626817	7/21/2015	E&S only	Per O&M agr.	Per O&M agr.	7/21/2015	Yes	Property Owner	0.30	0.06	1250			
54-20	Infiltration practices w/Sand, Veg.	York Township	200 - Unnamed	39.9272921	-76.71880182	4/30/2012	PAG20067 08075	Per O&M agr.	Per O&M agr.	6/19/2019	Yes	Property Owner	3.70	1.60	26400			
54-21	Infiltration practices w/Sand, Veg.	York Township	Unnamed Tributary	39.9261468	-76.71803615	4/30/2012	PAG20067 08075	Per O&M agr.	Per O&M agr.	6/19/2019	Yes	Property Owner	2.30	2.50	26400			
54-39	Infiltration practices w/Sand, Veg.	York Township	Codorus Creek	39.9095042	-76.70236933	5/31/2012	PAG20067 11050	Per O&M agr.	Per O&M agr.	4/10/2019	Yes	Property Owner	0.73	0.19				
54-48	Infiltration practices w/Sand, Veg.	York Township	Barshinger Creek	39.890795	-76.604288	11/10/2011	PAG20067 10037	Per O&M agr.	Per O&M agr.	5/13/2016	Yes	Property Owner	0.00	6.65	8730			
54-49	Infiltration practices w/Sand, Veg.	York Township	Barshinger Creek	39.890579	-76.604318	11/10/2011	PAG20067 10037	Per O&M agr.	Per O&M agr.	5/13/2016	Yes	Property Owner	0.00	4.92	20251			
54-56	Infiltration practices w/Sand, Veg.	York Township	Tributary Mill Creek	39.931756	-76.68565	5/1/2015	PAG02006 712043	Per O&M agr.	Per O&M agr.	1/20/2016	Yes	Property Owner	0.98	0.15				7199
54-59	Infiltration practices w/Sand, Veg.	York Township	Tributary Mill Creek	39.929436	-76.694533	5/1/2015	PAG02006 712049	Per O&M agr.	Per O&M agr.	7/25/2019	Yes	Property Owner	0.71	0.31				12634
54-60	Infiltration practices w/Sand, Veg.	York Township	Tributary Mill Creek	39.929436	-76.694533	5/1/2015	PAG02006 712049	Per O&M agr.	Per O&M agr.	7/25/2019	Yes	Property Owner	3.29	1.16				5280
54-62	Infiltration practices w/Sand, Veg.	York Township	Tributary Mill Creek	39.932464	-76.684384	9/1/2016	PAG02006 712049	Per O&M agr.	Per O&M agr.	9/1/2016	Yes	Property Owner	0.36	0.10	5500			3762
54-63	Infiltration practices w/Sand, Veg.	York Township	Tributary Mill Creek	39.932464	-76.684384	9/1/2016	PAG02006 712049	Per O&M agr.	Per O&M agr.	9/1/2016	Yes	Property Owner	0.33	0.15	1690			3086
54-64	Infiltration practices w/Sand, Veg.	York Township	Tributary Mill Creek	39.932464	-76.684384	9/1/2016	PAG02006 712049	Per O&M agr.	Per O&M agr.	9/1/2016	Yes	Property Owner	0.61	0.06	6497			6678
54-65	Infiltration practices w/Sand, Veg.	York Township	Tributary Mill Creek	39.932464	-76.684384	9/1/2016	PAG02006 712049	Per O&M agr.	Per O&M agr.	9/1/2016	Yes	Property Owner	0.31	0.50	4347			2991
54-66	Infiltration practices w/Sand, Veg.	York Township	Unnamed Tributary Codorus	39.938517	-76.695407	12/23/2013	PAG20067 08030	Per O&M agr.	Per O&M agr.	5/30/2014	Yes	Property Owner	0.27	0.24				13299
													15.46	***19.50***				
54-54	Forest Buffers	York Township	Barshinger Creek	39.889566	-76.602826	11/10/2011	PAG20067 10037	Per O&M agr.	Per O&M agr.	5/13/2016	Yes	Property Owner	**2.86**	**27.69**	509260			

Defense Distribution Center - Susquehanna

BMP ID #	BMP Name per DEP BMP Effectivess Values Table	Description	Total Area Treated (Acres)	Impervious Area Treated (Acres)	Pervious Area Treated (Acres)	Stream Restoration Length (Feet)	TN BMP Reduction Efficiency (%)	TP BMP Reduction Efficiency (%)	TSS BMP Reduction Efficiency (%)	TN Reduced (lbs/year)	TP Reduced (lbs/year)	TSS Reduced (lbs/year)
DDC-20	Bioretention/ Raingarden (A/B soils w/o underdrain)	Bio retention areas 1-4 at Bldg. 2055	1.3	1	0.3		80	85	90	27	1	1,465
DDC-24	Bioretention/ Raingarden (A/B soils w/o underdrain)	BMP 1 ACP4- Bioretention/rain gardens- A/B soils, no underdrain	3.0	1.5	1.6		80	85	90	58	2	2,416
DDC-25	Bioretention/ Raingarden (A/B soils w/o underdrain)	Units 3, 4, and 5 at ACP4	1.3	0.8	0.5		80	85	90	26	1	1,253
DDC-29	Bioretention/ Raingarden (A/B soils w/o underdrain)	Bio retention area at Bldg 780	3.0	1.7	1.3		80	85	90	60	2	2,728
DDC-37	Bioretention/ Raingarden (A/B soils w/o underdrain)	Green Roof at HQ Bldg	0.3	0	0.3		80	85	90	5	0	67
DDC-40	Bioretention/ Raingarden (A/B soils w/o underdrain)	Vegetated swales draining into bioretention acility west of Mission Drive improvements	0.9	0.1	0.7		80	85	90	14	0	354
				5.1	***4.7***							
DDC-41	Bioretention/ Raingarden (A/B soils w/underdrain)	smaller bioretention facility west of Mission Drive improvements	0.5	0.2	0.3		70	75	80	7	0	256
DDC-43	Bioretention/ Raingarden (A/B soils w/underdrain)	Unit west of WWTP	0.1	0	0.1		70	75	80	2	0	45
DDC-44	Bioretention/ Raingarden (A/B soils w/underdrain)	Unit north of WWTP	1.2	0.4	0.8		70	75	80	19	1	665
				0.6	***1.2***							
DDC-1	Dry Extended Detention Basins	Stormwater Detention Basin N of BLDG 89, B1	14.2	12.9	1.2		20	20	60	81	3	12,685
DDC-2	Dry Extended Detention Basins	Stormwater Detention, S. of Bldg. 789 Pond B2	6.7	3.0	3.7		20	20	60	32	1	3,374
DDC-3	Dry Extended Detention Basins	Stormwater Sediment Trap, Bldg 780 T5 Above ID 19	0.5	0.5	0.0		20	20	60	3	0	465

Defense Distribution Center - Susquehanna

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DDC-4	Dry Extended Detention Basins	Sediment Trap II, Bldg. 87	3.0	1.1	1.9		20	20	60	14	0	1,317
DDC-5	Dry Extended Detention Basins	Sediment Trap II, Bldg. 789	1.2	0.0	1.2		20	20	60	4	0	152
DDC-6	Dry Extended Detention Basins	Sediment Trap II, Bldg 789	1.8	0.0	1.8		20	20	60	7	0	231
DDC-28	Dry Extended Detention Basins	Dry Detention Pond at Bldg 780	4.5	3.1	1.4		20	20	60	24	1	3,200
				20.6	***11.2***							
DDC-33	Infiltration practices w/Sand, Veg.	Unit A10 at HQ Bldg	1.5	1.0	0.5		85	85	95	33	1	1,638
DDC-34	Infiltration practices w/Sand, Veg.	Unit A20 at HQ Bldg	2.0	0.8	1.2		85	85	95	39	1	1,478
DDC-35	Infiltration practices w/Sand, Veg.	Basin C10 Detention at HQ Bldg	1.2	0.9	0.3		85	85	95	28	1	1,460
DDC-36	Infiltration practices w/Sand, Veg.	Basin C20 Detention at HQ Bldg	3.8	2.6	1.2		85	85	95	84	3	4,240
DDC-39	Infiltration practices w/Sand, Veg.	East of the visitor center parking lot, receives runoff from inspection canopy access drive	0.5	0.3	0.2		85	85	95	11	0	500
DDC-42	Infiltration practices w/Sand, Veg.	West of EDC Bldg	1.0	0.3	0.7		85	85	95	18	0	626
				5.9	***4.1***							
DDC-7	Vegetated Open Channels (A/B Soils)	Swale E1	1.8	0.0	1.8		45	45	70	15	0	270
DDC-8	Vegetated Open Channels (A/B Soils)	Swale G1	1.2	0.0	1.2		45	45	70	10	0	177
DDC-10	Vegetated Open Channels (A/B Soils)	Rip Rap Swale E. Bldg. 57	0.8	0.4	0.4		45	45	70	8	0	473
DDC-11	Vegetated Open Channels (A/B Soils)	Swale N or Bldg. 789	1.9	0.7	1.2		45	45	70	20	1	1,014
DDC-14	Vegetated Open Channels (A/B Soils)	Swale W of Bldg. 2001	2.1	0.8	1.4		45	45	70	22	1	1,059
DDC-18	Vegetated Open Channels (A/B Soils)	Swale S of Ball Field and Bldg 412	1.0	0.3	0.7		45	45	70	10	0	447
DDC-19	Vegetated Open Channels (A/B Soils)	Mifflin Drive, from the North Gate to Cherry Lane	1.2	0.4	0.8		45	45	70	12	0	563

Defense Distribution Center - Susquehanna

BMP ID #	BMP Name per DEP BMP Effectivess Values Table	Description	Total Area Treated (Acres)	Impervious Area Treated (Acres)	Pervious Area Treated (Acres)	Stream Restoration Length (Feet)	TN BMP Reduction Efficiency (%)	TP BMP Reduction Efficiency (%)	TSS BMP Reduction Efficiency (%)	TN Reduced (lbs/year)	TP Reduced (lbs/year)	TSS Reduced (lbs/year)
DDC-26	Vegetated Open Channels (A/B Soils)	Bioswale- Segments 3&4 ACP4. Segments 1 & 2 are a part of a separate BMP	0.8	0.0	0.8		45	45	70	7	0	123
DDC-30	Vegetated Open Channels (A/B Soils)	Bioswale - C1 at Bldg 780	6.5	5.0	1.5		45	45	70	80	3	5,902
DDC-46	Vegetated Open Channels (A/B Soils)	Vegetated swale on south side of WWTP	0.3	0.0	0.3		45	45	70	3	0	85
				7.6	***10.1***							
DDC-27	Bioswale	Bioswale - D1, D2, at Bldg 780	0.5	***0.1***	***0.4***		70	75	80	7	0	207
DDC-31	Dry Detention Basins and Hydrodynamic Structures	Hydrodynamic Separator at Bldg 780	0.5	***0.5***	***0.0***		5	10	10	1	0	86
DDC-32	Filtering Practices	Underground Infiltration System- 20,000CF Tanks 1-3 at building 430	2.6	***2.2***	***0.4***		40	60	80	29	2	2,956
DDC-new	Tree Planting	ACP 4 Improvements- reforestation	1.7	***0.0***	***1.7***		10	15	20	3	0	75
DDC-new	Wet Pond and Wetlands	ACP 4 Improvements- forested floodplain wetlands	2.0	***1.2***	***0.8***		20	45	60	10	1	1,268
DDC-new	Stream Restoration	ACP 4 Improvements- stream restoration. This BMP includes a riparian forest buffer that cannot have standalone value as it is within 35 feet of the stream restoration, per PADAP guidance.	600	n/a	n/a	***600***	0.075	0.068	44.88	45	41	26,928

PennDOT		Best contact person/number if questions about BMP: Rich Heineman (BOMO-SEMP, 717-787-0459) or Kris Feldmeyer (District 8, 717-772-8777)										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M (see note)				Drainage Area (acres)		BMP Information			
BMP ID #	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
PD-69	Bioretention/ Raingarden (A/B soils w/o underdrain)	SPRINGETTSBURY TOWNSHIP	UNT to Mill Creek	39.958747	-76.672269	2012	PAG02006711037					1.44	2.76	1650	N/A	N/A	N/A
PD-70	Bioretention/ Raingarden (A/B soils w/o underdrain)	SPRINGETTSBURY TOWNSHIP	UNT to Mill Creek	39.958825	-76.665992	2012	PAG02006711037					0	1.5	2200	N/A	N/A	N/A
PD-75	Bioretention/ Raingarden (A/B soils w/o underdrain)	WINDSOR TOWNSHIP	UNT to Kruetz Creek	39.960029	-76.640414	2013	PAG02006709027					0.51	1.25	1400	N/A	N/A	N/A
												1.95	***5.51***				
PD-1	Dry Extended Detention Basins	YORK TOWNSHIP	Mill Creek	39.958937	-76.661841	2016	PAG-02-0067-12-002					7.59	6.69	6750	N/A	N/A	N/A
PD-66	Dry Extended Detention Basins	PENN TOWNSHIP	Oil Creek	39.781436	-76.953156	2008	PAG02006706030					0.31	4.19	760	N/A	N/A	N/A
PD-67	Dry Extended Detention Basins	PENN TOWNSHIP	UNT South Branch Conewago Creek	39.823612	-76.997981	2012	PAG02000109009					1.72	0.25	1500	N/A	N/A	N/A
PD-68	Dry Extended Detention Basins	WINDSOR TOWNSHIP	UNT to Kruetz Creek	39.95939	-76.639333	2013	PAG02006709027					1.23	6.52	8000	N/A	N/A	N/A
PD-76	Dry Extended Detention Basins	PENN TOWNSHIP	Oil Creek	39.783076	-76.953216	2008	PAG02006706030					0.53	1.01	70	N/A	N/A	N/A
												11.38	***18.66***				
PD-3	Infiltration practices w/Sand, Veg.	WINDSOR TOWNSHIP	UNT to Kreutz Creek	39.956025	-76.65496	2016	PAG-02-0067-12-002					0.7	3.91	1725	N/A	N/A	N/A
PD-4	Infiltration practices w/Sand, Veg.	YORK TOWNSHIP	Strom Sewer>Other Basin> Storm Sewer> Mill Creek	39.957599	-76.659534	2016	PAG-02-0067-12-002					2.99	6.08	13300	N/A	N/A	N/A
PD-17	Infiltration practices w/Sand, Veg.	FAIRVIEW TOWNSHIP	UNT to Fishing Creek	40.171878	-76.827237	2010	PAG02006707074					0.19	1.08	1320	N/A	N/A	165/8/5
PD-18	Infiltration practices w/Sand, Veg.	FAIRVIEW TOWNSHIP	UNT to Fishing Creek	40.172945	-76.826652	2010	PAG02006707074					0.15	4.99	400	N/A	N/A	50/8/5
PD-19	Infiltration practices w/Sand, Veg.	MANCHESTER TOWNSHIP	UNT to Willis Run	39.982379	-76.764543	2007	PAG02006704124					0.15	1.19	395	N/A	N/A	200/25/2
PD-20	Infiltration practices w/Sand, Veg.	SPRINGETTSBURY TOWNSHIP	UNT to Condorus Creek	40.012075	-76.691297	2006	PAG02006704075					0.5	0.83	424	N/A	N/A	106/4/8
PD-21	Infiltration practices w/Sand, Veg.	SPRINGETTSBURY TOWNSHIP	UNT to Condorus Creek	40.0124	-76.691758	2006	PAG02006704075					0.21	0.49	240	N/A	N/A	60/4/8
PD-22	Infiltration practices w/Sand, Veg.	SPRINGETTSBURY TOWNSHIP	UNT to Condorus Creek	40.012472	-76.691804	2006	PAG02006704075					3.7	30.8	660	N/A	N/A	165/4/8
PD-23	Infiltration practices w/Sand, Veg.	WEST MANCHESTER TOWNSHIP	Willis Run	39.982435	-76.765288	2007	PAG02006704124					0.21	0.92	948	N/A	N/A	140/12/2
PD-24	Infiltration practices w/Sand, Veg.	SPRINGFIELD TOWNSHIP	UNT to East Branch Codorus Creek	39.866512	-76.695562	2012	PAG02006710034					0.25	5.1	830	N/A	N/A	154/4/2
PD-25	Infiltration practices w/Sand, Veg.	SPRINGFIELD TOWNSHIP	UNT to East Branch Codorus Creek	39.866677	-76.696722	2012	PAG02006710034					0.86	3.63	984	N/A	N/A	246/4/2
PD-27	Infiltration practices w/Sand, Veg.	YORK TOWNSHIP	UNT to Mill Creek	39.957923	-76.659311	2016	PAG-02-0067-12-002					0.4	0.1	415	N/A	N/A	155/2.67/2.67

PennDOT		Best contact person/number if questions about BMP: Rich Heineman (BOMO-SEMP, 717-787-0459) or Kris Feldmeyer (District 8, 717-772-8777)										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M (see note)				Drainage Area (acres)		BMP Information			
BMP ID #	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
PD-28	Infiltration practices w/Sand, Veg.	YORK TOWNSHIP	UNT to Mill Creek	39.958307	-76.659507	2016	PAG-02-0067-12-002					1.25	0.7	225	N/A	N/A	85/2.67/2.67
PD-52	Infiltration practices w/Sand, Veg.	WEST MANCHESTER TOWNSHIP	UNT to Trib 08420 To Little Conewago Creek	39.990503	-76.789851	2016	PAG02006715005					0.23	1.16	330	N/A	N/A	110/3/3
PD-53	Infiltration practices w/Sand, Veg.	WEST MANCHESTER TOWNSHIP	UNT to Trib 08420 To Little Conewago Creek	39.991933	-76.792423	2016	PAG02006715005					0.91	0.59	202	N/A	N/A	50.5/4/4.5
PD-71	Infiltration practices w/Sand, Veg.	SPRINGETTSBURY TOWNSHIP	UNT to Mill Creek	39.95835	-76.670211	2012	PAG02006711037					0	0.38	710	N/A	N/A	120/10/2.5
PD-72	Infiltration practices w/Sand, Veg.	SPRINGETTSBURY TOWNSHIP	UNT to Mill Creek	39.958385	-76.669757	2012	PAG02006711037					0	0.33	500	N/A	N/A	80/10/2.5
PD-73	Infiltration practices w/Sand, Veg.	SPRINGETTSBURY TOWNSHIP	UNT to Mill Creek	39.958449	-76.669212	2012	PAG02006711037					0	0.25	800	N/A	N/A	130/10/2.5
PD-74	Infiltration practices w/Sand, Veg.	SPRINGETTSBURY TOWNSHIP	UNT to Mill Creek	39.958529	-76.668544	2012	PAG02006711037					0	0.3	1050	N/A	N/A	170/10/2.5
												12.7	***62.83***				
PD-30	Vegetated Open Channels (A/B Soils)	SPRINGFIELD TOWNSHIP	UNT to East Branch Codorus Creek	39.866086	-76.695874	2012	PAG02006710034					0.17	1.64	600	N/A	N/A	N/A
PD-31	Vegetated Open Channels (A/B Soils)	SPRINGFIELD TOWNSHIP	UNT to East Branch Codorus Creek	39.867007	-76.697806	2012	PAG02006710034					1.01	4.58	600	N/A	N/A	N/A
PD-33	Vegetated Open Channels (A/B Soils)	WEST MANCHESTER TOWNSHIP	Codorus Creek	39.929616	-76.786465	2015	PAG02006713059					0.14	0.36	490	N/A	N/A	N/A
PD-34	Vegetated Open Channels (A/B Soils)	WEST MANCHESTER TOWNSHIP	Codorus Creek	39.929802	-76.786072	2015	PAG02006713059					0.25	1.92	500	N/A	N/A	N/A
PD-36	Vegetated Open Channels (A/B Soils)	SPRINGFIELD TOWNSHIP	UNT to East Branch Codorus Creek	39.865056	-76.697269	2012	PAG02006710034					0	0.6	415	N/A	N/A	N/A
PD-54	Vegetated Open Channels (A/B Soils)	MANCHESTER TOWNSHIP	UNT to Trib 08420 To Little Conewago Creek	39.990768	-76.789996	2016	PAG02006715005					0.08	0.58	500	N/A	N/A	N/A
PD-55	Vegetated Open Channels (A/B Soils)	WEST MANCHESTER TOWNSHIP	UNT to Trib 08420 To Little Conewago Creek	39.990882	-76.790556	2016	PAG02006715005					0.06	0.19	330	N/A	N/A	N/A
PD-56	Vegetated Open Channels (A/B Soils)	MANCHESTER TOWNSHIP	UNT to Trib 08420 To Little Conewago Creek	39.990893	-76.790279	2016	PAG02006715005					0.15	0.19	1000	N/A	N/A	N/A
PD-57	Vegetated Open Channels (A/B Soils)	WEST MANCHESTER TOWNSHIP	UNT to Trib 08420 To Little Conewago Creek	39.991769	-76.792246	2016	PAG02006715005					0.03	0.36	450	N/A	N/A	N/A
PD-58	Vegetated Open Channels (A/B Soils)	MANCHESTER TOWNSHIP	UNT to Trib 08420 To Little Conewago Creek	39.991906	-76.792199	2016	PAG02006715005					0.13	0.07	1000	N/A	N/A	N/A
PD-59	Vegetated Open Channels (A/B Soils)	MANCHESTER TOWNSHIP	UNT to Trib 08420 To Little Conewago Creek	39.992041	-76.792334	2016	PAG02006715005					0.15	0.08	390	N/A	N/A	N/A

PennDOT		Best contact person/number if questions about BMP: Rich Heineman (BOMO-SEMP, 717-787-0459) or Kris Feldmeyer (District 8, 717-772-8777)										Site Data					
		Location (Lat/Long provide decimal to 6 places)				Installation		O&M (see note)				Drainage Area (acres)		BMP Information			
BMP ID #	BMP Name per DEP BMP Effectivess Values Table	Municipality	Watershed	Latitude	Longitude	Date	NPDES Permit #	Activities	Frequency	Is BMP still functioning to design? (Yes or No)	Responsible person/agency for inspections	Impervious	Pervious	BMP Surface area (SF)	Stream Restoration Length (LF)	Stream Buffer Width & Length (LF)	Trench L/W/D (CF)
PD-60	Vegetated Open Channels (A/B Soils)	WEST MANCHESTER TOWNSHIP	UNT to Trib 08420 To Little Conewago Creek	39.99219	-76.792653	2016	PAG02006715005					0.024	0.126	260	N/A	N/A	N/A
												2.194	***10.696***				

Note: It would take us awhile to verify that all of the O&M has been done to these BMPs. However, we are implementing policy to ensure that all of the O&M is conducted in the future.

APPENDIX VI

Pollutant Load Reduction Sample Calculations

For Proposed BMPs

Simplified Method and BayFAST Calculation Comparison
Stream Restoration

BayFAST Baseline Calculation (No BMP Scenario)

BayFAST Sample Calculation: Stream Restoration (100 ft)

Baseline Load (25,561,309 lbs) – Scenario (25,556,821 lbs) = BMP Reduction (4,488 lbs)

Simplified Method Calculation

BMP Type	**Length** (ft)	**BMP Effectiveness** (lbs/ft/yr)	**Pollutant Load Reduction** (lbs/yr)
Stream Restoration	100	44.88	4,488

Defense Distribution Center, Susquehanna Anticipated Load Reduction
Fairview Township, York County

The U.S. Department of Defense (DoD) owns and operates one facility within York County. This facility, the Defense Distribution Center, Susquehanna is an 868-acre facility located in Fairview Township. It is regulated by a separate MS4 permit: PAG-133590. In accordance with the MS4 permit, it assumed that this facility will achieve the following pollutant reduction goal during the 5-year permit goal.

Defense Distribution Center, Susquehanna Anticipated Pollutant Load Reduction – 63,090 lbs TSS

The following calculation demonstrates how the Defense Distribution Center, Susquehanna (DoD Facility) estimated this pollutant load reduction in it's Chesapeake Bay Pollutant Reduction Plan.

Facility Name	**Area**		**Drainage Area Characteristics** (Fairview Twp.)				**Loading Rate** (lbs/yr)		**Total Load** (lbs/yr)
	Total Acres	UA Acres	% Imperv.	Imperv. (acres)	% Pervious	Pervious (acres)	Imperv.	Pervious	
Defense Distribution Center, Susquehanna	868	839	45%	379	55%	460	1614.15	220.4	713,147

DoD Facility Total Load TSS lbs/yr:	713,147
Less DoD Facility Existing BMP TSS lbs/yr Reductions:	82,247
DoD Facility Total Load TSS lbs/yr Balance:	630,900
Required Reduction:	10%
Load reduction anticipated to be achieved during Permit term	**63,090 lbs/yr TSS**

When achieved, this pollutant load reduction will be reportable towards achieving the overall pollutant reduction goal for York County Regional CBPRP.

APPENDIX VII

Proposed BMP Project Schedule

and

Summary Sheets

Regional CBPRP Project Schedule

The implementation schedule for the projects identified in this Regional CBPRP is bounded by the MS4 Permit requirement of a five (5) year completion window following PADEPs approval of coverage. Per the Intergovernmental Cooperation Agreement, the municipal funding contributions are also on a five (5) year timeframe for the period, with payments occurring on an annual basis 2018 through 2022. Non-municipal funding, such as grants and donations, will supplement the municipal funds to implement the projects and meet the pollutant reduction goals. The guaranteed collection of funding through annual municipal contributions will enable the expeditious completion of many projects.

September 2017 through December 2019

- Since submission of the Draft Regional CBPRP in September of 2017, eleven (11) BMP projects included in the Plan were completed with operation and maintenance (O & M) being conducted in accordance with the applicable O & M Agreement or Plan. This includes ID #s 3, 33, 39, 57, 59, 76, 79, 82, 80, and 84, resulting in a sediment reduction of 399,469 lbs/year.

- **2020**

  Four (4) BMP projects are under construction with anticipated completion in 2020. This includes ID #s 4, 28, 32, 50, and 67 with an estimated sediment reduction of 205,137 lbs/year.

  - Design of four (4) projects is complete with construction planned to begin in 2020. This includes ID #s 2, 29, 42, and 47, with an estimated sediment reduction of 1,722,464 lbs/year.
  - Design of four (4) projects is complete with construction to occur in a future year. This includes ID #s 45, 51, 61, and 77. Projects 45, 51, and 77 have funding for construction.
  - Design is underway on seven (7) BMP projects. This includes ID #s 11, 27, 49, 52, 54, 55, and 61. Construction timing will be dependent on the permitting process and availability of construction funds. Projects #s 11, 27, and 52 have funding for construction.
  - Design will begin on three (3) BMP projects. This includes ID #s 20, 38, and 83. ID # 38 has funding for construction.

- **2021**

  - Construction will begin on eight (8) BMP projects. This includes ID #s 20, 27, 38, 49 (Ph I),52, 61, 66, and 77, with an estimated sediment reduction of 1,659,256 lbs/year.
  - Design will begin and be completed on (2) BMP projects (ID # 5 and 66).

- **2022**
  - Construction will begin on four (4) BMP projects. This includes 11, 45, 68, and 83, with an estimated sediment reduction of 1,061,485 lbs/year.
- **2023**
  - Construction will begin on two (2) BMP projects, ID #s 51 and 63. The estimated sediment reduction is of 1,241,467 lbs/year.
- **2024**
  - Construction will begin on one (1) BMP project (ID #64), with an estimated reduction of 3,310.

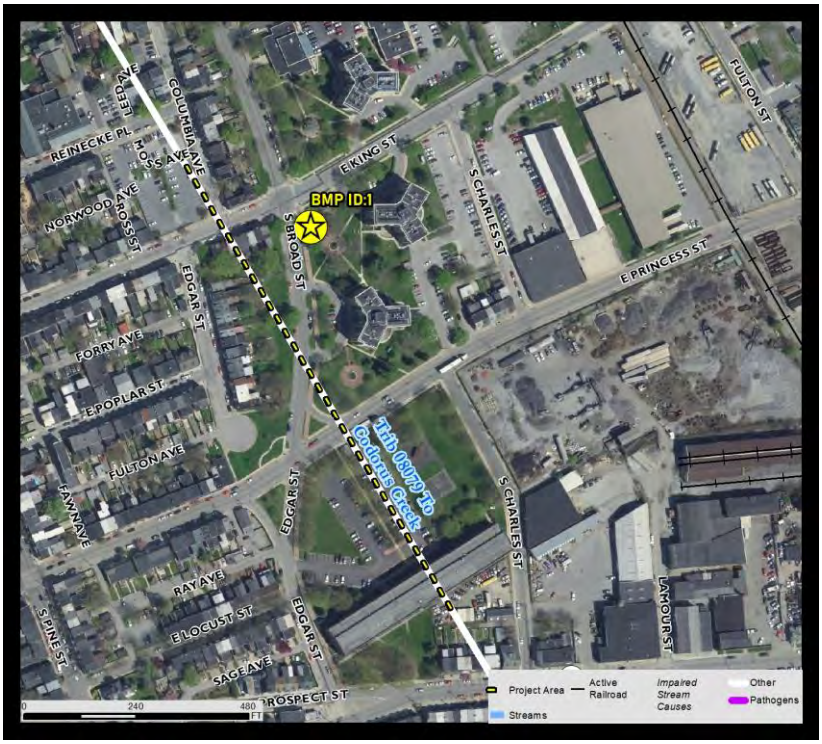
NOTES:

- The timing of permit issuance by the permitting authorities could affect the construction schedule set forth above.
- The remaining 35 projects in this Plan, the majority of which are stream restoration projects, do not currently have a planned design/construction schedule. Some of these projects have private sponsors, making it more difficult to find funding sources. Thus, private sponsors may choose to seek a public co-sponsorship for the project. Additionally, if YCSWC provides funding to a private sponsor for project implementation, they must follow the municipal procurement process. The YCSWC will continue to work with all project sponsors to encourage implementation.
- Sediment reduction estimates are "planning" estimates. Design/Construction, together with post construction stormwater management (PCSM), could result in higher reductions.
- The YCSWC will inform Project sponsors of grant funding opportunities and encourage them to apply. The intent is to stretch the YCSWC funds as far as possible by using them to leverage additional funds to implement the BMP projects.
- In addition, to the specific projects included in this Plan, partnerships exist with PennDOT and the Defense Distribution Center, Susquehanna, which are both non-municipal MS4s. The YCSWC did not parse their Planning Areas from the Regional CBPRP Planning Area. Thus, BMP projects implemented by these non-municipal MS4s will help to meet the YCSWC's sediment reduction target.

1 Lat/Long: 39°57’48.9852” / 76°43’5.8512”

Broad Street Greenway

Bioretention
York City

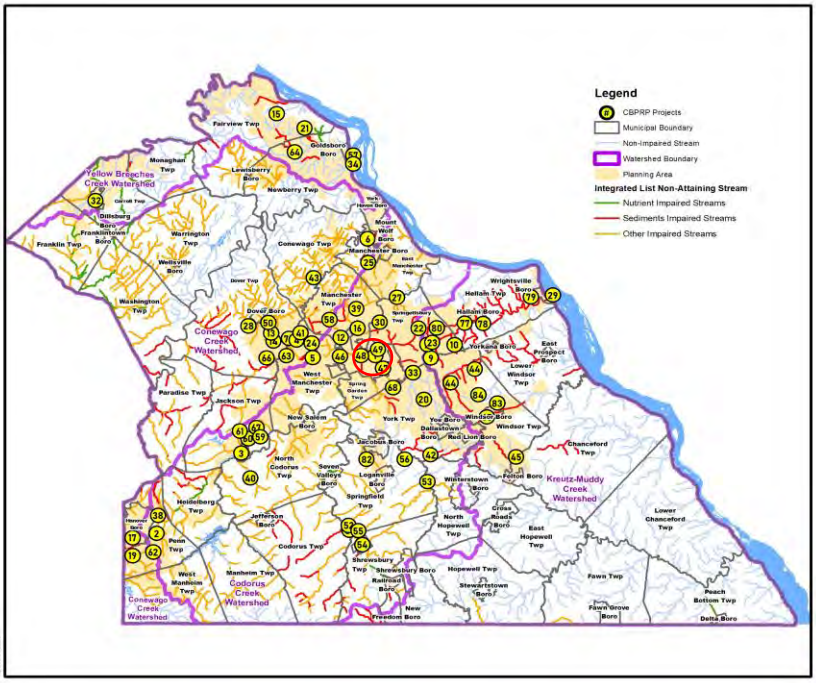


General Information

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	No
Impaired Stream:	Codorus Creek (TSS/Pathogens)
Project Area (ac):	6.34
Cost ($)	350,000

Pollutant Load Reduction

Bioretention TSS (lbs/yr):	7,733
Cost ($) / lb	42.19



Description

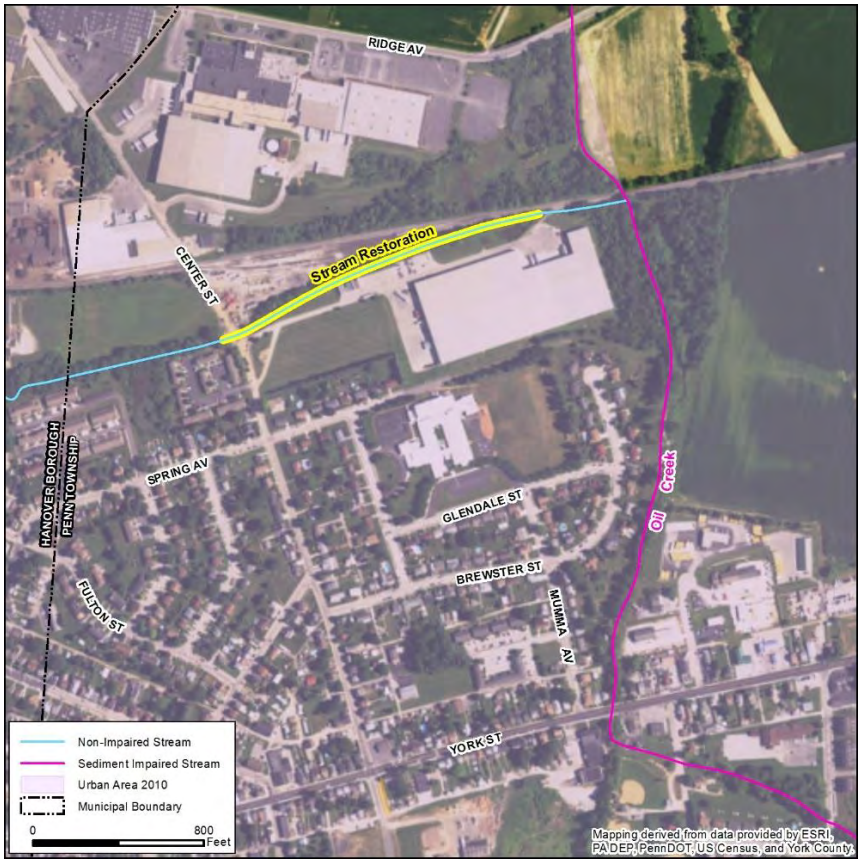
The green islands in a previously completed streetscape project will be altered to capture and treat stormwater runoff from the street.

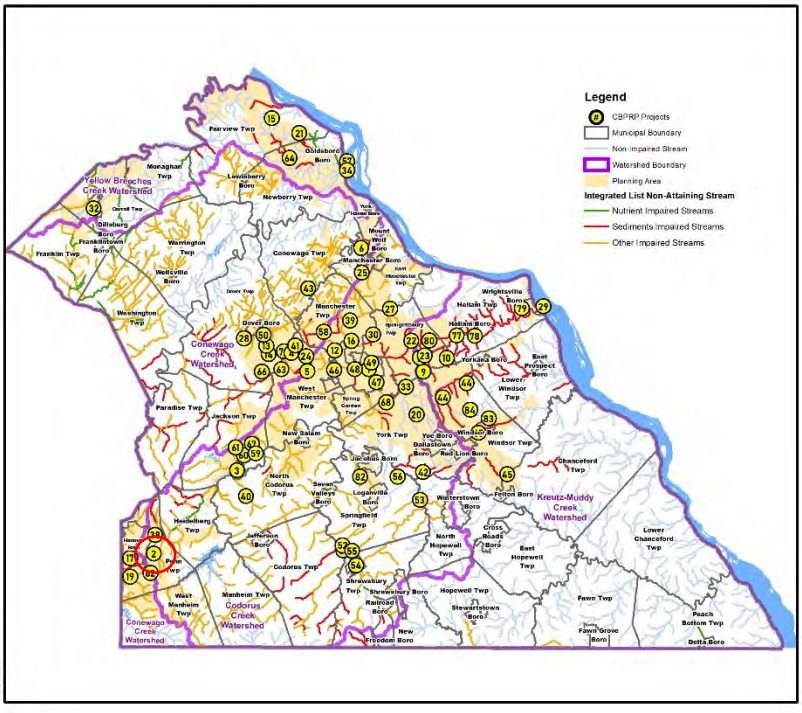
Notes

Center Street Streambank Restoration

Stream Restoration

Penn Twp.





General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	
Unnamed Trib to Oil Creek	(TSS)
Stream Restoration Length (ft):	500
Cost ($)	150,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	22,440
Cost ($) / lb	6.68

Description

This project will stabilize approximately 500 feet of severely eroded streambank. The project also proposes to enhance the habitat of the stream segment through the implementation of log and rock veins, habitat boulders, cross rock veins, and J-hook log vanes.

The project is located on private property located at 201 Center Street, Hanover (parcel ID 44000DD0039L).

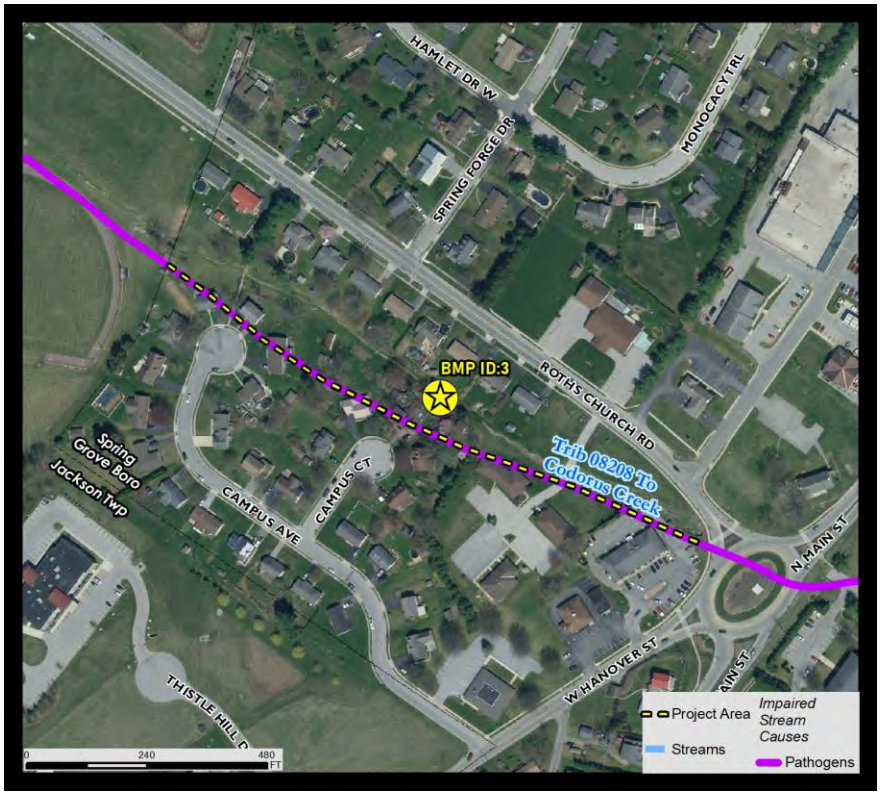
Notes

Permit was issued by PA DEP. YCPC CAP Grant awarded to fill construction funding gap. Anticipated to be completed by end of 2020 or early 2021.

3 Lat/Long: 39°56’13.092” / 76°51’58.2474”

Campus Avenue Stream Restoration

Stream Restoration
Spring Grove Borough

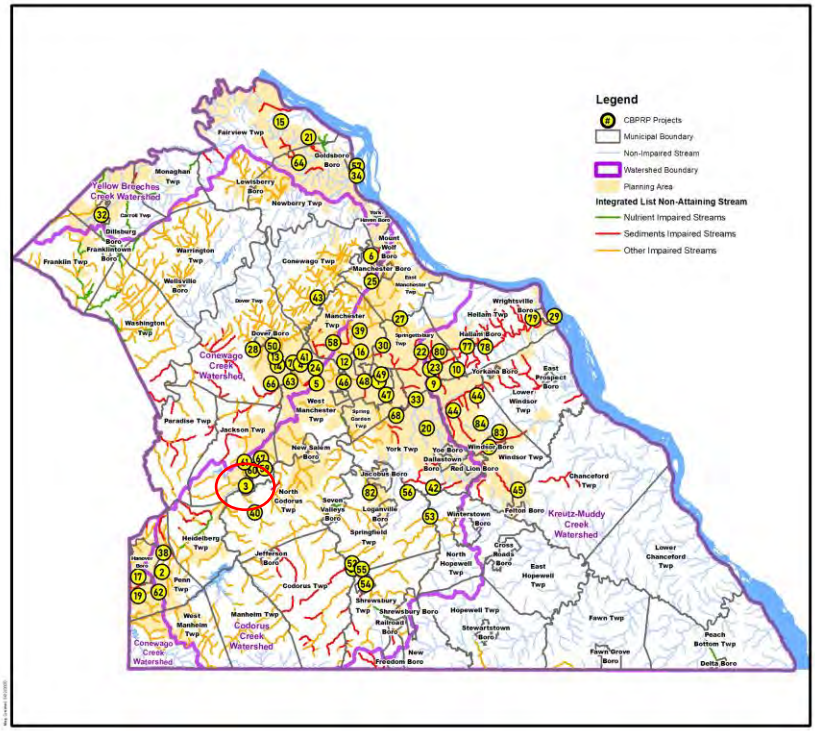


General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	UNT Codorus Creek (Pathogens)
Stream Restoration Length (ft):	1,200
Cost ($)	370,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	56,100
Cost ($) / lb	6.60



Description

Restoration of 1,200 feet of an unnamed tributary to Codorus Creek.

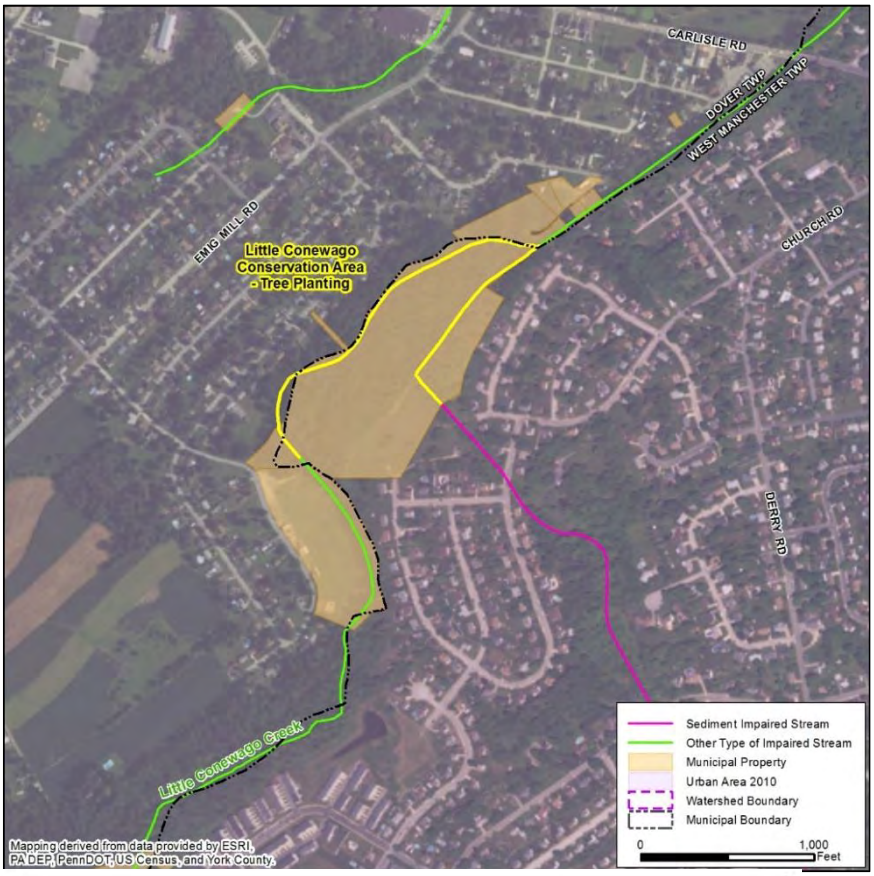
Notes

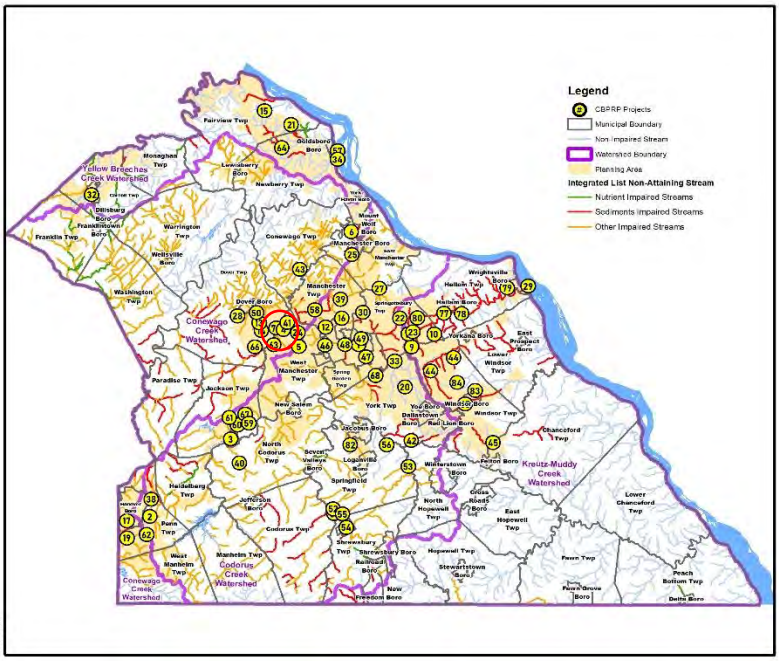
Project partially funded with a NFWF grant. Completed July 2019. Project ID #60 in Jackson Township is an extension of this project.

4 Lat/Long: 39º 58’ 35”/-76º 48’ 55”

West Manchester Tree Planting

Tree Planting
West Manchester Twp.





General Information

Ownership:	Public/Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	Little Conewago Creek (TSS) Unnamed Trib to Little Conewago Creek (TSS)
Tree planting area:	
Length (ft)	2,400 ft
Area (ac)	4 ac
Cost ($)	3,120

Pollutant Load Reduction

Tree Planting TSS (lbs/yr)	495
Cost ($) / lb	6.30

Description

This project proposes to plant approximately 2,400-linear feet of stream with 300 donated trees and additional live stakes in the Little Conewago Conservation Area. is in the vicinity of Project #24 (Dover Twp./West Manchester Twp. Stream Restoration).

Notes

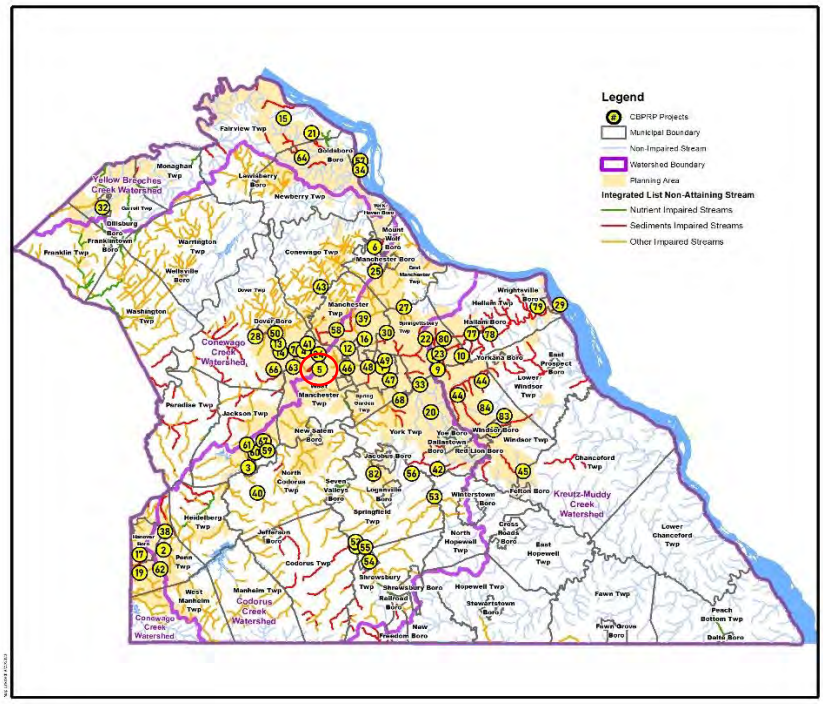
Installation of plantings occurred in 2019, but maintenance needs completed before reporting for credit.

5 Lat/Long: 39º 57’ 53.172”/ 76º 47’ 26.4474”

West Manchester Bioswale

Swale Retrofit

West Manchester Twp.



General Information

Ownership:	Public/Private
Secured Funding:	No
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	
Unnamed Trib to Little Conewago Creek	(TSS)
Bioswale Restoration:	
Drainage Area (ac):	7.8
Cost ($)	22,039

Pollutant Load Reduction

Bioswale Retrofit TSS (lbs/yr)	2,341
Cost ($) / lb	9.41

Description

This project is located upstream from regional Project 24 (Dover Twp./West Manchester Twp. Stream Restoration). This project will rehabilitate and upgrade approximately 17,000 feet of existing swale into a bioswale to improve water quality. The existing swale is located in an easement between Topaz Road and Sapphire Road in West Manchester Twp.

Notes

6 Lat/Long: 40º 4’ 14.448”/ 76º 43’ 23.8794”

Manhaven Manor Retrofit

Basin Retrofit

Manchester Boro

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	No
Closest downstream impaired waterway:	Musser Run (TSS)

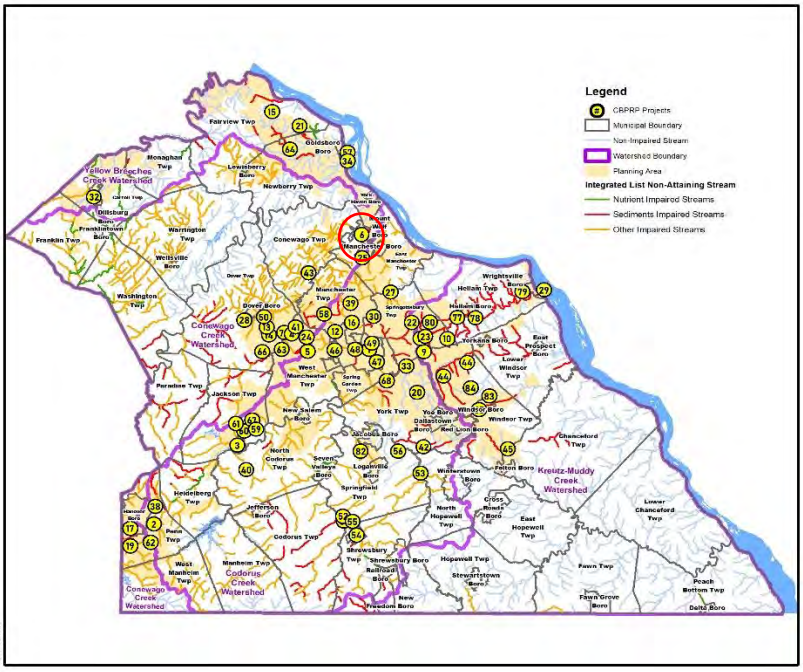
Basin Retrofit

Basin footprint (ac)	0.4
Basin drainage area (ac)	5.56

Cost ($)	12,000

Pollutant Load Reduction

Basin Retrofit TSS (lbs/yr):	1,669
Cost ($) / lb	7.19



Description

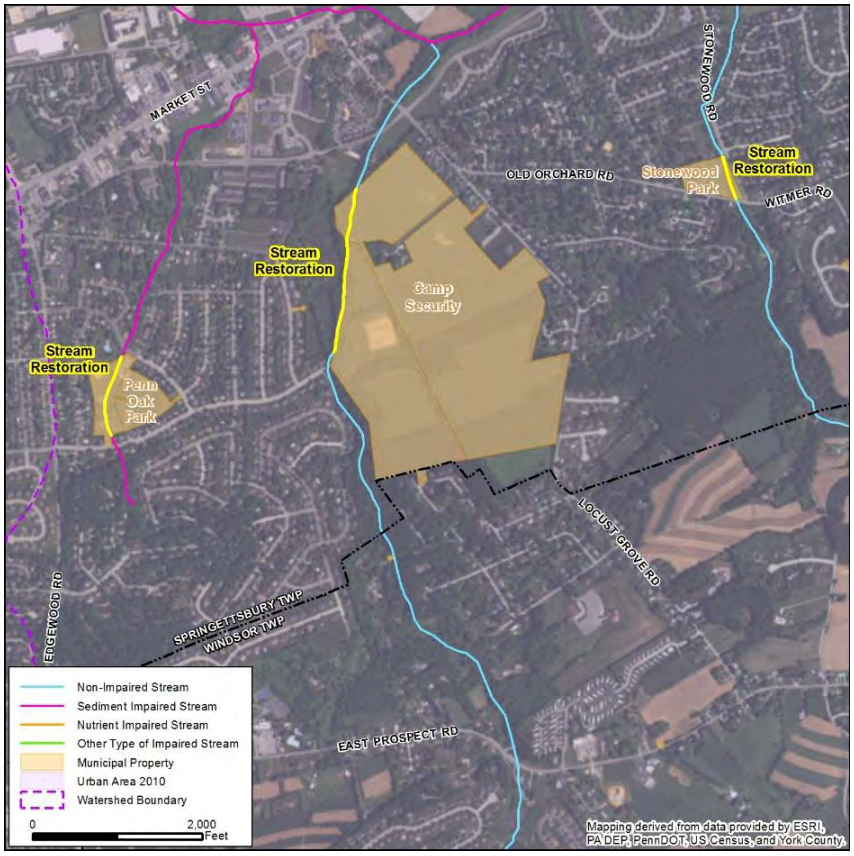
This project will retrofit the existing basin with amended soils and plantings to provide additional water quality benefits.

Notes

9 Lat/Long: 39°58’24.564” / 76°39’24.1920”

Penn Oaks Park

Stream Restoration
Springettsbury Twp.

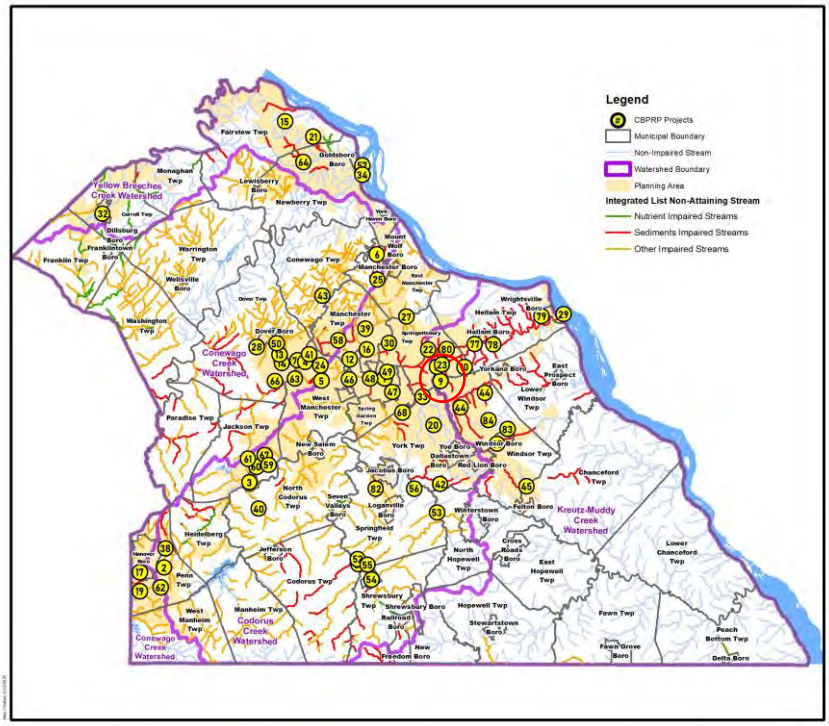


General Information

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes
Impaired Stream:	UNT Kreutz Creek (TSS)
Stream Restoration Length (ft):	950
Cost ($)	399,627

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	42,636
Cost ($) / lb	9.37



Description

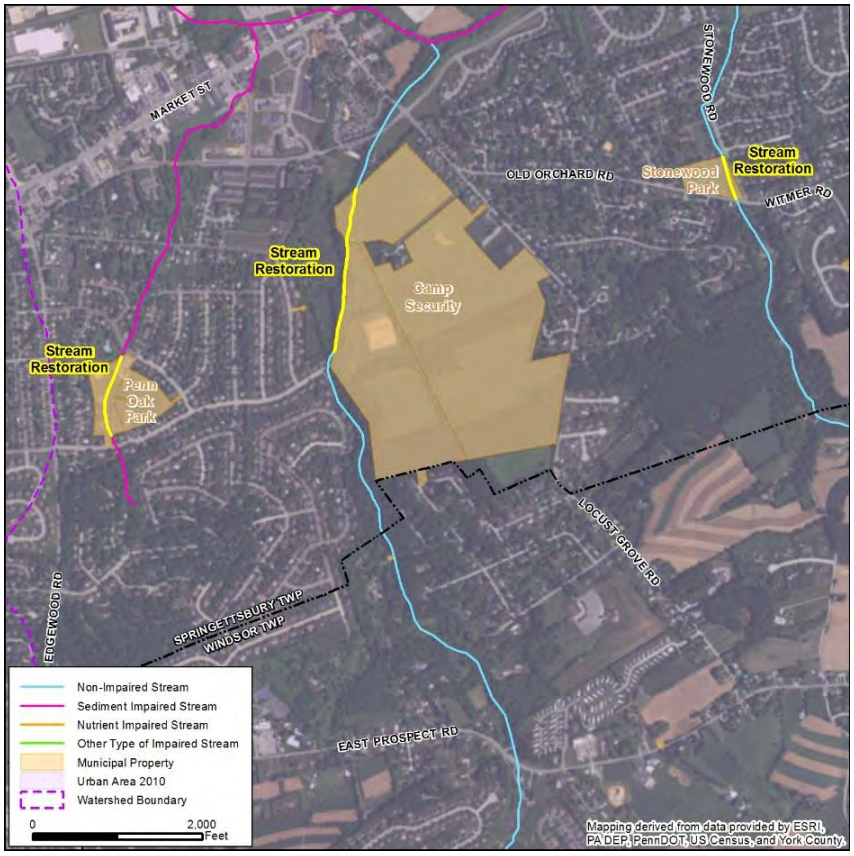
This project includes streambank stabilization measures at a Springettsbury Township-owned park.

Notes

10 Lat/Long: 39°58’52.248” / 76°37’55.488”

Stonewood Park

Stream Restoration
Springettsbury Twp.

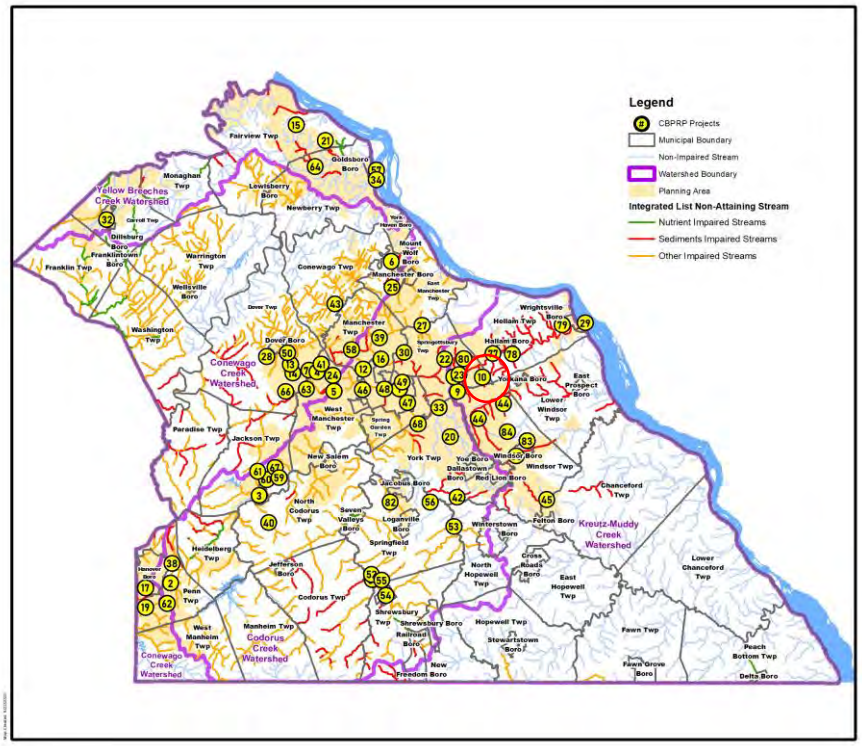


General Information

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes
Impaired Stream:	UNT Kreutz Creek (TSS)
Stream Restoration Length (ft):	1,270
Cost ($)	504,013

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	56,998
Cost ($) / lb	8.84



Description

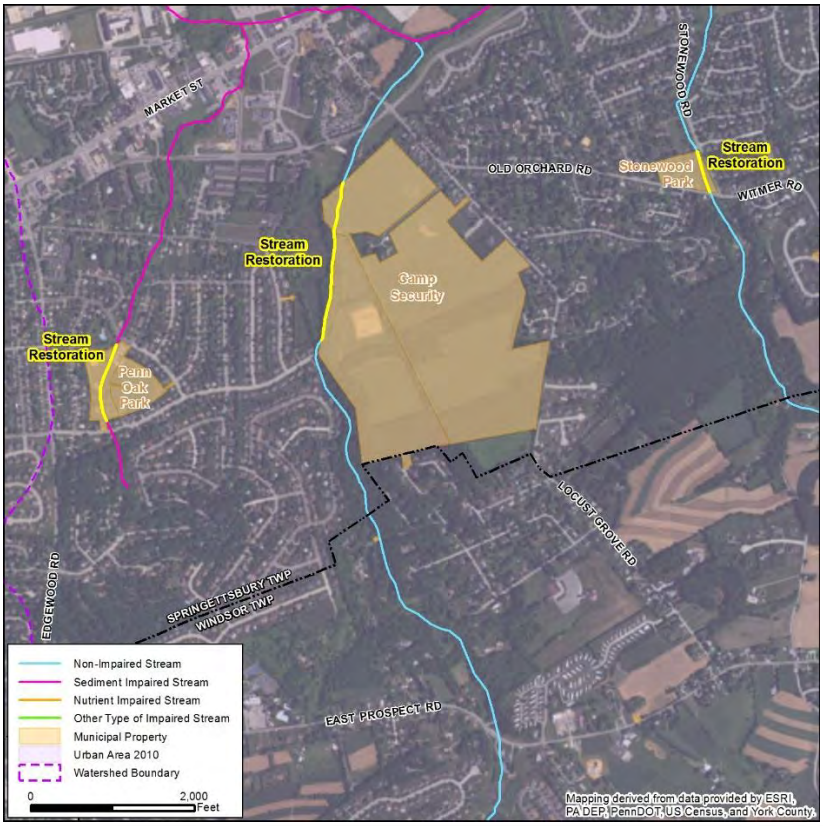
This project includes streambank stabilization measures at a Springettsbury Township-owned park.

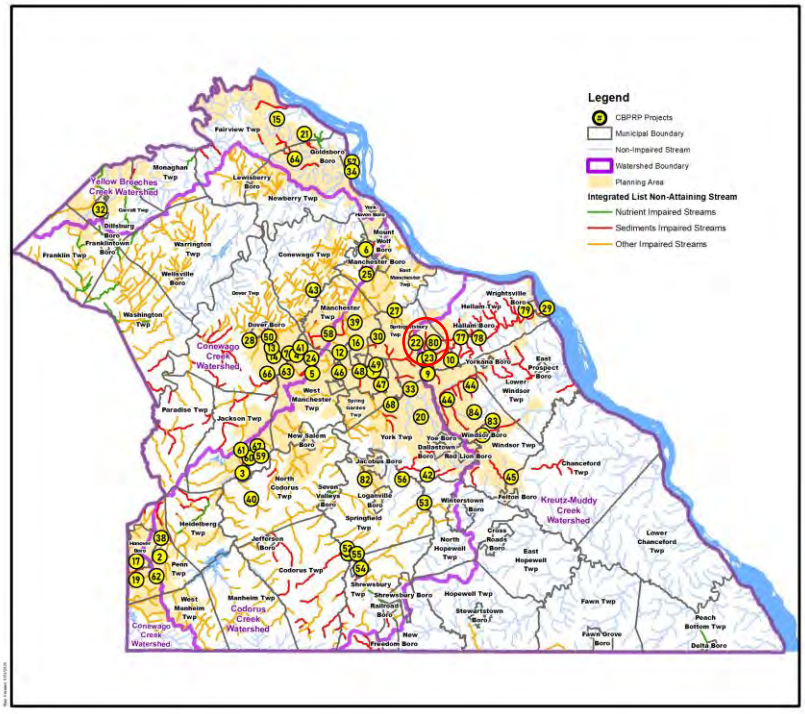
Notes

11 Lat/Long: 39°58’49.116” / 76°38’45.348”

Camp Security Park

Stream Restoration
Springettsbury Twp.





General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	No
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes
Impaired Stream:	UNT Kreutz Creek (TSS)
Stream Restoration Length (ft):	1,151
Cost ($)	903,640

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	84,376
Cost ($) / lb	2.73

Description

This project includes streambank stabilization measures at a Springettsbury Township-owned park.

Notes

Design is underway.

12 Lat/Long: 39º 59’ 1.176”/ 76º 45’ 4.104”

York City Industrial Park Basin

Basin Retrofit

York City

General Information

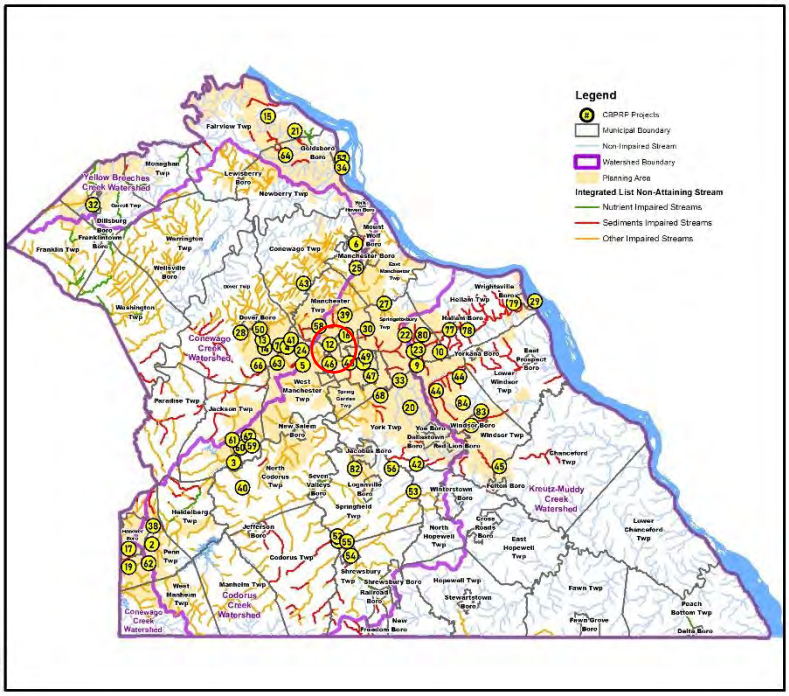
Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes

Closest downstream impaired waterway:
UNT to Codorus Creek (TSS)

Basin Retrofit	
Basin footprint (ac)	2.28
Basin drainage area (ac)	11,738
Cost ($)	68,400

Pollutant Load Reduction

Basin Retrofit TSS (lbs/yr):	11,738
Cost ($) / lb	5.83



Description

This project will retrofit an existing rate-control stormwater basin.

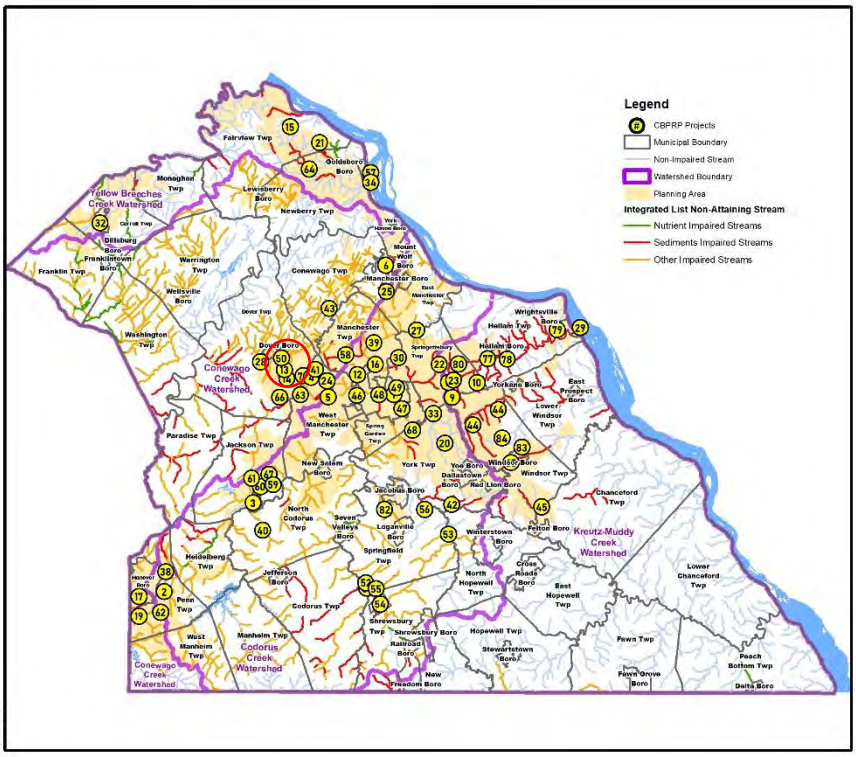
Notes

Ownership issues and maintenance responsibility would need to be resolved with the design work to provide a solid O&M plan post-construction work.

13 Lat/Long: 39º 59’ 0.456”/ 76º 50’ 22.9914”

Wyngate Detention Basin

Basin Retrofit
Dover Township



General Information

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req.:	Yes

Closest downstream impaired waterway:
Unnamed Trib to Fox Run (TSS)

Basin Retrofit	
Basin footprint (ac)	0.49
Basin drainage area (ac)	40
Cost ($)	14,700

Pollutant Load Reduction

Basin Retrofit TSS (lbs/yr):	12,034
Cost ($) / lb	1.22

Description

The large drainage area associated with this basin retrofit project is due to the layout of the MS4. Stormwater from the following streets is conveyed via the MS4 to the detention basin: Rock Creek Drive, Wyngate Road, Dunbarton Drive, Tower Drive, and Middleboro Road.

Notes

14 Lat/Long: 39º 58’ 43.932”/ 76º 50’ 9.9234”

Dover Township Community Center

Basin Retrofits
Dover Township

General Information

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Closest downstream impaired waterway:	Unnamed Trib to Little Conewago Creek (TSS)

Basin Retrofit	
Basin A footprint (ac)	0.4
Basin B footprint (ac)	0.38
Total	0.78
Total drainage area to basins (ac)	20.1
Cost ($)	23,400

Pollutant Load Reduction

Basin Retrofit TSS (lbs/yr):	6,047
Cost ($) / lb	3.87

Description

Retrofit of two existing basins at the Dover Township Community Center. The west basin is on parcel ID #24000JG0081D0 and the east basin in on parcel ID #24000300001A0.

Notes

Both basin retrofits are located on public land. The west basin is 50’x350’ and the east basin is 70’x235’ for a combined basin footprint of 33,950 sq. ft. or 0.78 acres.

15 Lat/Long: 40º 11’ 5.9634”/ 76º 50’ 8.52”

Emily Lane Stormwater Pond

Basin Retrofit

Fairview Township

General Information

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Yellow Breeches Creek
NPDES Permit req.:	No

Closest downstream impaired waterway:
Unnamed Trib to Fishing Creek (TSS)

Basin Retrofit

Basin footprint (ac)	0.4
Basin drainage area (ac)	7.02
Cost ($)	12,000

Pollutant Load Reduction

Basin Retrofit TSS (lbs/yr):	2,104
Cost ($) / lb	5.70

Description

Retrofit a stormwater pond that is the BMP for a small subdivision.

Notes

16 Lat/Long: 39º 59’ 45.9198” / 76º 43’ 55.1634”

Stillmeadow Park Restoration

Stream Restoration, Wetland Restoration, Basin Retrofits, Tree Planting
Manchester Township

General Information

Ownership:	Public/Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	
UNT to Codorus Creek	(TSS)
Stream Restoration Length (ft):	
Segment 1 - park property	2,100
Segment 2 - downstream from park (partially private property)	1,000
Segment 3 - north of park (partially private property)	750
Wetland Restoration (ac):	
Pocket 1 - park property	3.0
Pocket 2 - downstream from park (partially private property)	1.5
Tree Planting (ac):	
Planting area - park property	0.25
Basin Retrofit (ac):	
Upstream Basin - private property	0.6
South Basin - private property	0.7
Park Basin - park property	0.4
Church Basin - private property	0.5
Cost ($)	1,947,495

Pollutant Load Reduction TSS (lbs/yr)

Stream Restoration (Park Property)	94,248
Stream Restoration (Downstream of Park)	44,880
Stream Restoration (North of Park)	33,660
Wetland Pocket (Park)	55,604
Wetland Pocket (Downstream of Park)	11,260
Tree Planting	85
Basin Retrofit (Upstream of Park)	12,064
Basin Retrofit (South of Park)	6,017
Basin Retrofit (Park)	1,647
Basin Retrofit (Church)	2,102
Total	261,567
Cost ($) / lb	7.45

Notes

Majority of the project is within the Park.

17 Lat/Long: 39º 47’ 53.6166”/ 76º 59’ 5.0274”

Poplar Street Swale Retrofit

Swale Retrofit
Hanover Boro

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req.:	No
Closest downstream impaired waterway:	Plum Creek (TSS)

Infiltration BMP

BMP footprint (ac)	0.5
BMP drainage area (ac)	32.4

Cost ($)	15,000

Pollutant Load Reduction

Basin Retrofit TSS (lbs/yr):	13,503

Cost ($) / lb	1.11

Description

This project will replace an existing swale located alongside a Borough-owned building with an infiltration BMP. The existing swale is undersized to handle the runoff draining to the site. The new infiltration BMP will have an increased storage capacity to alleviate flooding, as well as provide water quality benefits. The BMP location is Parcel ID: 670000901970000000 owned by East Coast Commercial Real Estate LLC.

Notes

19 Lat/Long: 39º 51’ 43.38”/ 76º 59’ 10.2762”

Homewood Streambank Restoration

Stream Restoration
Penn Twp.

General Information

Ownership:	Private
Secured Funding:	No
Designs:	Yes
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	
Unnamed Trib to Plum Run (pathogens)	
Stream Restoration Length (ft):	
Homewood at Hanover	1,600
Cost ($)	480,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	71,808
Cost ($) / lb	6.68

Description

Approximately 1,600 feet of stream restoration on property parcel ID # 44000CD0080A owned by Homewood at Hanover Inc.

Notes

20 Lat/Long: 39º 55’ 23.8074”/ 76º 40’ 5.5194

Kehm Run Dam Removal Restoration

Wetlands Restoration
York Twp.

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req:	Yes
Stream Name:	Unnamed Trib to Mill Creek (non-impaired)
Closest downstream impaired stream:	Mill Creek (TSS)
Distance from project site:	2.5 miles
Wetland Restoration Area (ac):	1
Drainage Area to Wetland Restoration Area (ac):	70
Cost ($)	250,588

Pollutant Load Reduction TSS (lbs/yr)

Reconstructed Wetland:	19,450
Cost ($) / lb	12.90

Description

After removal of the dam and stream channel reforming, the wetland areas will be restored.

Notes

Dam removal is completed. Discussions are underway between American Rivers and SRBC regarding restoration of the site. American Rivers represents the landowners (Prindle & Rineer).

21 Lat/Long: 40º 10’ 46.3218”/ 76º 48’ 12.7944”

Red Land High School Stream Restoration

Stream Restoration
Fairview Twp.

General Information

Ownership:	Public/Private
Secured Funding:	No
Designs:	No
Watershed:	Yellow Breeches Creek
NPDES Permit req.:	Yes
Stream Name:	Unnamed Trib to Fishing Creek (non-impaired)

Closest downstream impaired stream: Unnamed Trib Fishing Creek (TSS)
Distance from project site: 0.15 miles

Stream Restoration Length (ft):

Red Lands High School	1,700
PA American Water	1,200
Total	2,900 ft

Cost ($) 870,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):

Red Lands High School	76,296
PA American Water	53,856
Total	130,152

Cost ($) / lb 6.68

Description

This project includes two (2) sections of stream restoration. The sections of the UNT to Fishing Creek proposed for restoration are not impaired, however the section of the tributary downstream from the project site is impaired for siltation.

The sections of stream proposed for restoration include 1,700 ft of stream at Red Land High School, property parcel number 27000QF0145A000000 owned by the West Shore School District; and 1,200 ft of stream east of Red Land High School within a PA American Water easement near I-83.

Notes

22 Lat/Long: 39°59’19.8384” / 76°39’37.3716”

Concord Office Center (Kinsley)

Basin Retrofit
Springettsbury Twp.

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Kreutz-Muddy Creek
NPDES Permit req:	Yes
Impaired Stream:	
Unnamed Trib Kreutz Creek (TSS)	

Basin Retrofit:

Concord Office Center – East Basin	
Basin footprint (ac):	0.14
Drainage area (ac):	1.02
Concord Office Center – West Basin	
Basin footprint (ac):	0.18
Drainage area (ac):	1.13
Cost ($):	9,642

Pollutant Load Reduction

Basin Retrofits TSS (lbs/yr):

East Basin	304
West Basin	340
Total:	644

Cost ($) / lb	14.97

Description

The Kinsley Concord Office Center east basin treats a 1.02-acre drainage area and the west basin treats a 1.13-acre drainage area.

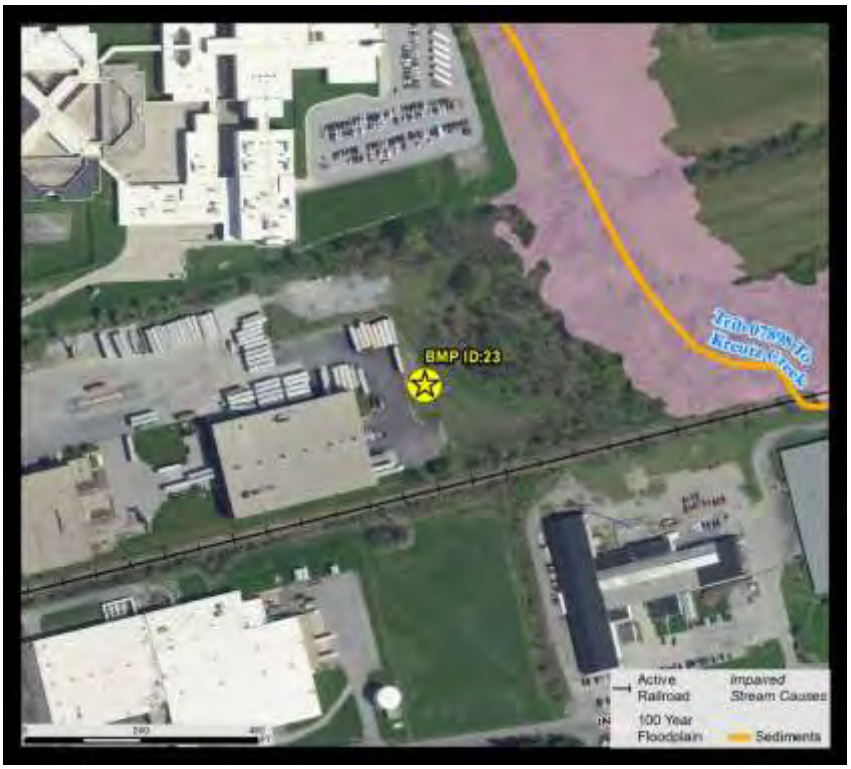
Notes

Coordinates are for the east basin shown on the map.

23 Lat/Long: 39°59’6.036”/ 76°39’29.5122”

Concord Business Park

Basin Retrofit
Springettsbury Twp.



General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Kreutz-Muddy Creek
NPDES Permit req:	Yes
Impaired Stream:	
Unnamed Trib Kreutz Creek (TSS)	
Basin Retrofit:	
Concord Business Park	
Basin footprint (ac):	0.21
Drainage area (ac):	13
Cost ($)	6,198

Pollutant Load Reduction

Basin Retrofits:

Concord Business Park	3,911
Cost ($) / lb	6.97

Description

The Concord Business Park basin treats a 13-acre drainage area.

Notes

Project sponsor is Concord Road Associates.

24 Lat/Long: 39°58’27.5592”/ 76°46’55.4376”

Dover Twp./West Manchester Twp. Stream Restoration

Stream Restoration/Forest Buffer
Dover Twp. & West Manchester Twp.

General Information

Ownership:	Public/Private
Secured Funding:	No
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	
	Little Conewago Creek (TSS)
	UNT Little Conewago Creek (TSS)

Stream Restoration Length (ft):	
Dover Twp. Park	1,000
Little Conewago Conserv. Area	
UNT Little Conewago Creek	1,230
Little Conewago Creek	1,800
Dover Twp. Properties	1,000
West Manchester Properties	1,800
Total (ft)	7,310
Forest Buffer Area (acres):	
Dover Twp. Park	0.8
Cost ($)	2,193,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr)	
Dover Twp. Park	44,880
Little Conewago Conserv. Area	102,326
Dover Twp. Properties	44,880
West Manchester Properties	80,784
Total	328,073
Forest Buffer TSS (lbs/yr)	
Dover Twp Park	284
Cost ($) / lb	6.68

Notes

Coordinates are for center of project area.

25 Lat/Long: 40º 3’ 23.184/ 76º 43’ 8.7594”

Dauberton HOA Basin Retrofit

Basin Retrofit
Manchester Boro

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	No
Closest downstream waterway:	Hartman Run (not impaired)

Basin Retrofit

Basin footprint (ac)	0.6
Basin drainage area (ac)	5.5

Cost ($)	18,000

Pollutant Load Reduction

Basin Retrofit TSS (lbs/yr):	1,647
Cost ($) / lb	10.93

Description

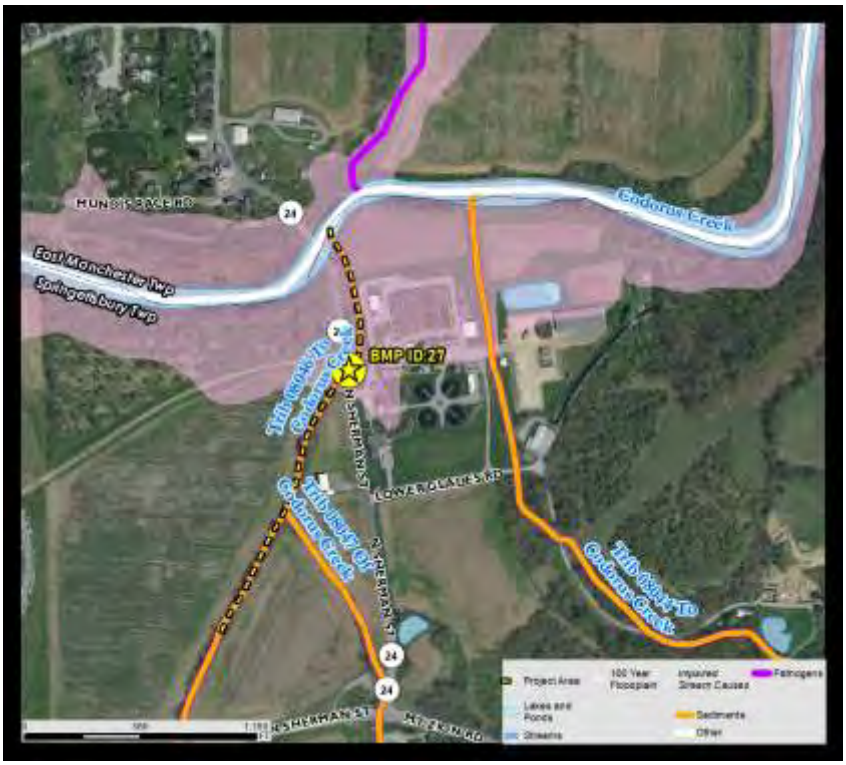
This project will retrofit the existing basin with amended soils and plantings to provide additional water quality benefits.

Notes

27 Lat/Long: 40°01'0.912" / 76°41'34.440"

Wastewater Treatment Plant West Tributary

Stream Restoration
SpringettsburyTwp.



General Information

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Codorus Creek (TSS)
Stream Restoration Length (ftF):	2,896
Cost ($)	984,313

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	360,554
Cost ($) / lb	2.73

Description

This project seeks to stabilize actively eroding banks along approximately 2,896 LF of stream bank using proven naturalistic techniques including vegetative bank stabilization, strategically placed bio-engineered toe protection, bank grading, targeted floodplain restoration, and a 35 foot riparian corridor restoration using native tree and shrub plantings.

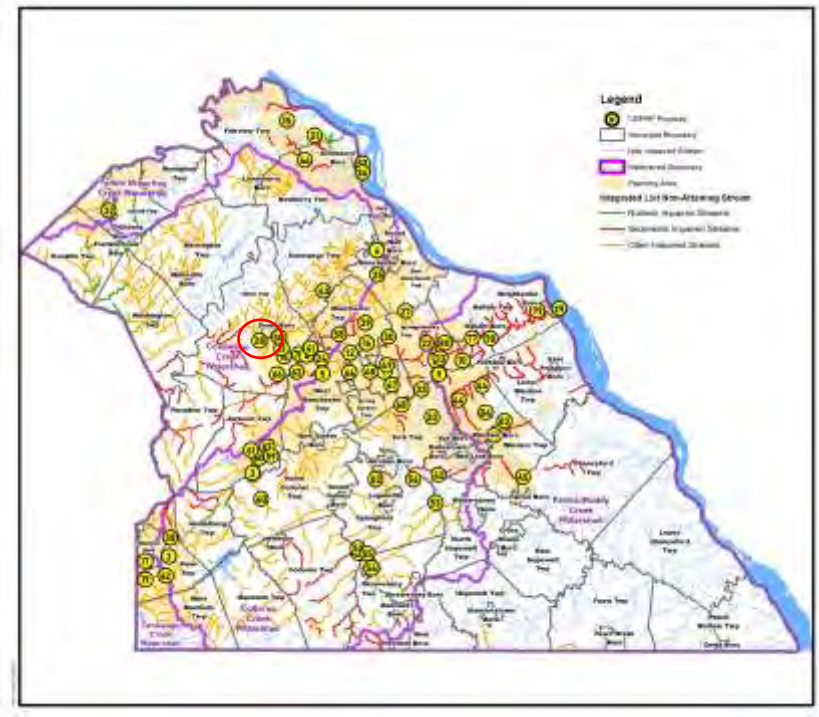
Notes

Design is underway. Township has applied to various sources for funding.

28 Lat/Long: 39°59'51.008" / 76°51'16.222"

Dover Township Public Works Facility

Bioretention/Raingardens
Dover Twp



General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	Yes
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	No
Basin Footprints (ac):	1.0
Basins Drainage Area (ac):	11.2
Cost ($)	185,000

Pollutant Load Reduction

Bioretention TSS (lbs/yr):	5,297
Cost ($) / lb	34.93

Description

Bioretention/raingardens on site of new public works facility.

Notes

Project completion anticipated for early 2021.

29 Lat/Long: 40º 1’ 31.26”/ 76º 32’ 5.28”

Riverfront Park GI Plan (Susq River)

Bioretention Basin #1
Wrightsville Borough

General Information

Ownership:	Public
Secured Funding:	Partial
Designs:	Yes
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes
Waterway:	Susquehanna River

Bioretention Basin #1

Basin footprint (ac):	0.2
Basin drainage area (ac):	22.6

Cost ($) 376,350

Pollutant Load Reduction

Bioretention TSS (lbs/yr):	62,793
Cost ($) / lb	5.99

Description

Implementation of a bioretention facility in Riverfront Park to control flooding.

Notes

Project designed in 2014 by LandStudies using NFWF grant funds. The Borough received a Growing Greener Grant for construction. Secondary benefits are park improvement, reduced flooding, and education opportunities. Construction to occur in 2020/2021.

30 Lat/Long: 40º 0’ 5.6808”/ 76º 43’ 4.8”

York County Solid Waste and Refuse Center

Water Re-use

Manchester Twp.

General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Closest downstream impaired waterway:	Codorus Creek (TSS)

Water Reuse

Total water volume to be re-used (cf)	111,977
Cost ($)	Not Available

Pollutant Load Reduction

Water Re-use (lbs/yr):	30,440
Cost ($) / lb	Not Available

Description

Water re-use operations installed during the planned expansion of the York County Solid Waste and Refuse Center will result in reduced stormwater runoff volume and a reduction in TSS load.

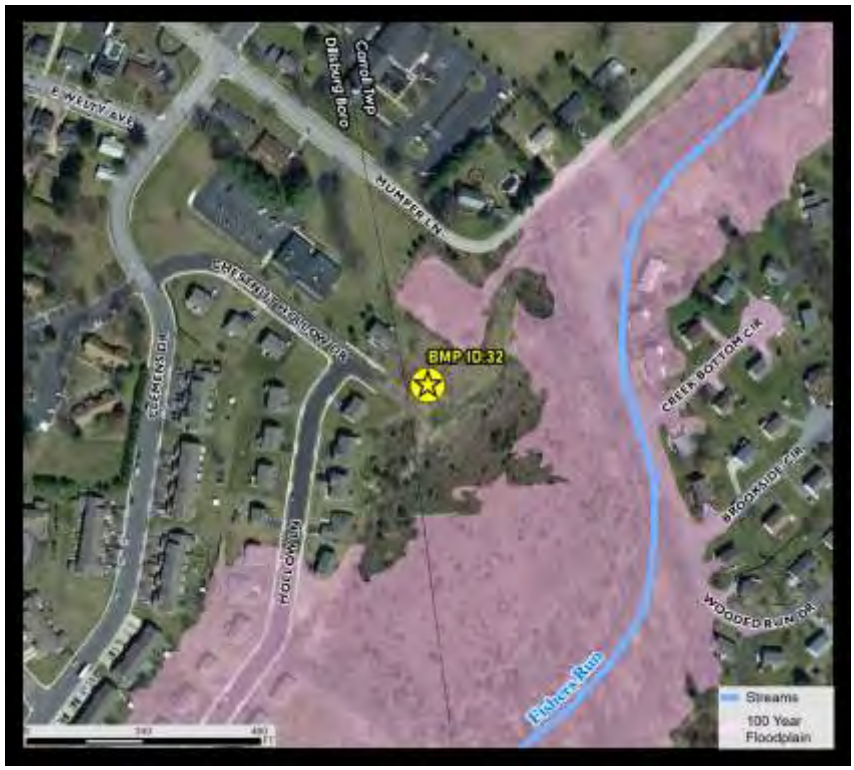
Notes

This project is part of a larger planned improvement to the York County Solid Waste and Refuse Center. Cost for the water re-use component has not been broken out.

32 Lat/Long: 40°6’41.9328” / 77°1’44.814”

Chestnut Hollow Basin Enhancements

Basin Retrofit
Carroll Twp



General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Yellow Breeches Creek
NPDES Permit req.:	Yes
Impaired Stream:	No
Basin Footprint (ac):	0.55
Drainage Area (ac):	29.2
Cost ($)	22,000

Pollutant Load Reduction

Bioretention TSS (lbs/yr):	12,000
Cost ($) / lb	1.83

Description

Project is part of an existing E & S basin to SW conversion. Enhancements include naturalization, infiltration, and filtration.

Notes

Project is under construction with completion anticipated for late 2020 or early 2021.

33 Lat/Long: 39°56'52.8" / 76°40'4.5474"

Camp Betty Washington Road Stream Restoration

Stream Restoration
York Twp

General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Mill Creek (TSS)
Stream Restoration Length (ft):	150
Cost ($)	50,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	6,888
Cost ($) / lb	7.26

Description

This stream restoration included reconnection to the floodplain, but data was not available to calculate sediment reduction for that component.

Notes

Project completed December 2018.

34 Lat/Long: 40º 9’ 0.288”/ 76º 45’ 4.068”

South York Street (Fishing Creek) Ph 2

Stream Restoration
Goldsboro Borough

General Information

Ownership:	Public/Private
Secured Funding:	No
Designs:	No
Watershed:	Yellow Breeches Creek
NPDES Permit req.:	Yes
Waterway:	Fishing Creek
Impaired Stream:	No
Stream Restoration (ft):	1,400
Cost ($)	333,700

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	49,368
Cost ($) / lb	6.83

Description

Restoration of Fishing Creek from Borough Park to the River. Will include a riparian buffer. This project is an extension of Project #57.

Notes

Phase 1, Project #57– 138 South York Street (Fishing Creek) Stream Restoration, completed September 2019.

38 Lat/Long: 39°49'7.5072" / 76°58'2.6652"

Hanover School District SWM Demo Project

Filter Strip w/Soil Amendments & Conservation Landscaping
Hanover Boro

General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	No
Impaired Stream:	Oil Creek (TSS/Nutrients)
Project Area (ac):	0.4
Cost ($)	478,357

Pollutant Load Reduction

Filter Strip w/Soil Amendments/Conservation Landscaping	TSS (lbs/yr):	4,098
Cost ($) / lb		116.73

Description

A SWM Plan is being prepared for the 65 acre School District property. This project is a SWM demonstration project associated with the Plan. It also includes continuous monitoring after construction is completed.

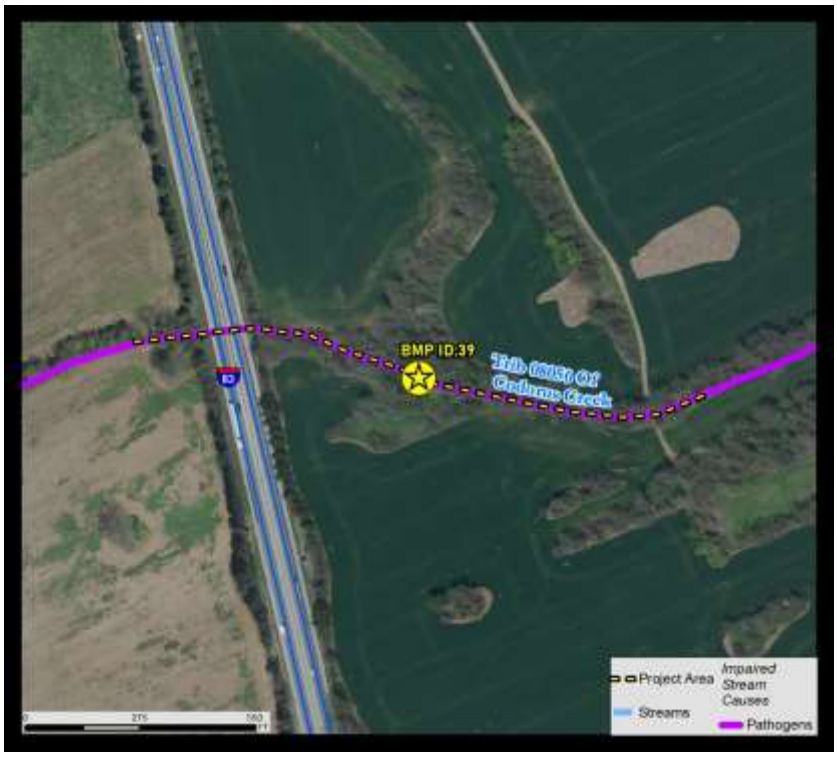
Notes

Borough received a $562,335 GG Grant for the Plan and demonstration project. Installation of the monitoring equipment is complete.

39 Lat/Long: 40°0’50.148” / 76°44’18.96”

Sinking Springs Farm Stream Restoration

Stream Restoration
Manchester Twp



General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	UNT Codorus Creek (TSS)
Stream Restoration Length (ft):	1,368
Cost ($)	750,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	131,344
Cost ($) / lb	4.49

Description

This stream restoration project was completed 12/6/2019. It included a buffer and reconnection to the floodplain. Anticipate higher sediment reduction with PCSM analysis.

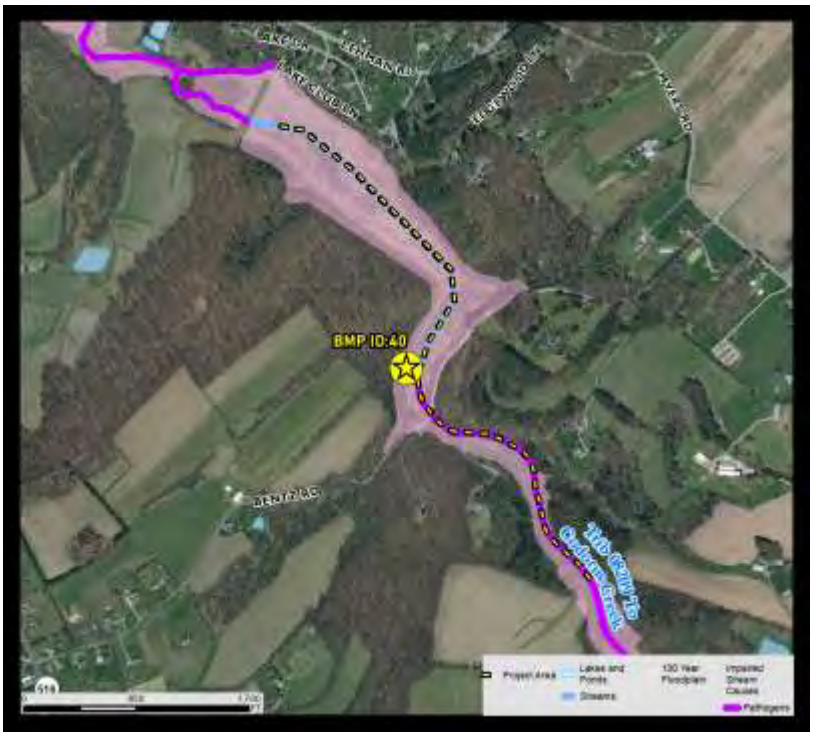
Notes

This is a PennDOT pilot MS4 project completed December 2019.

40 Lat/Long: 39°30’51.2058” / 76°30’47.7792”

Lake Club Restoration Project

Stream Restoration
North Codorus Twp.



General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Lehman Creek (TSS)
Stream Restoration Length (ft):	4,200
Cost ($)	850,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	188,496
Cost ($) / lb	1.08

Description

This project includes stream restoration with reconnection to the floodplain and a riparian buffer. Is located outside the Planning Area, but drains to it.

Notes

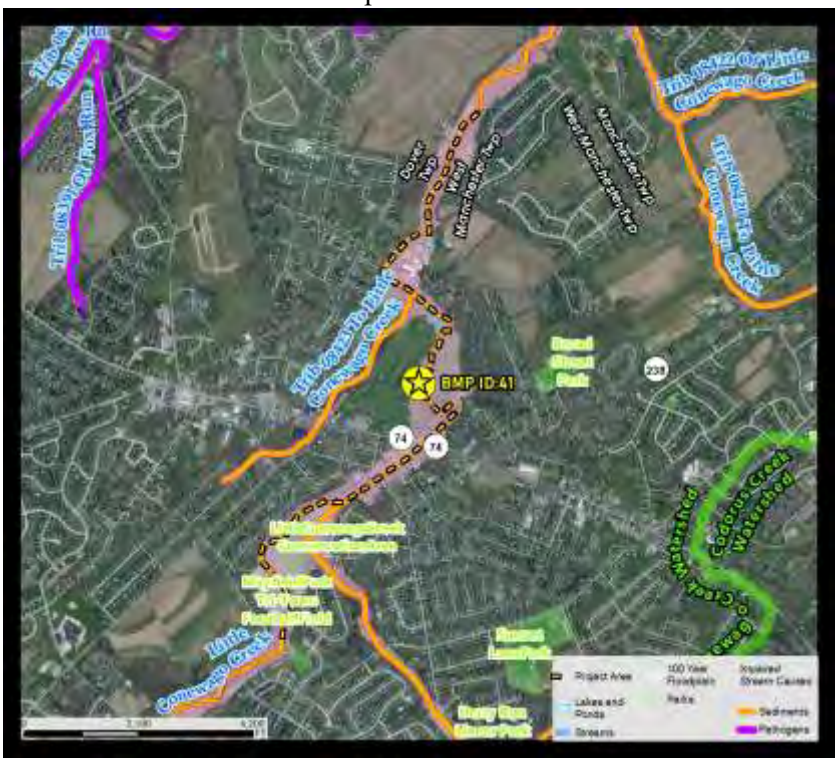
Project sponsor is Redding; project submitted by Ecostruction. There are opportunities for other BMPs on the site.

41 Lat/Long: 38°35’8.3538” / 76°28’55.4658”

Little Conewago Creek Channel Rehabilitation

Stream Restoration

Dover & West Manchester Twps.



General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	Little Conewago Creek (TSS)
Stream Restoration Length (ft):	10,540
Cost ($)	2,500,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	473,035
Cost ($) / lb	2.42

Description

This project includes stream restoration with reconnection to the floodplain and a riparian buffer. Project is on Grandview Golf Course.

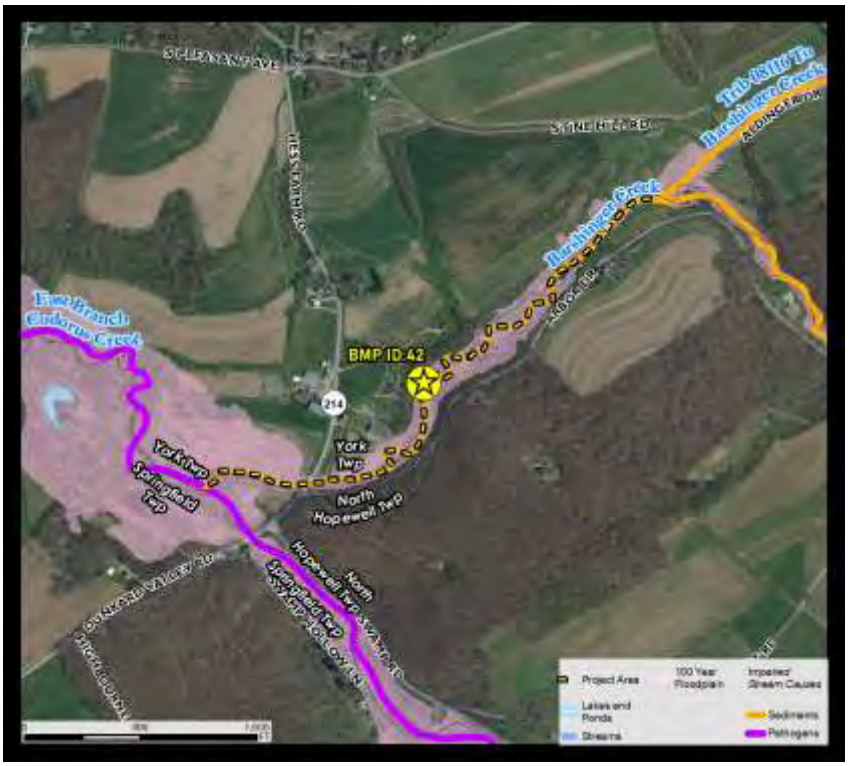
Notes

Project Sponsor is Brewvino, LLC; project submitted by Ecostruction. Opportunities may exist to implement other BMPs on the site.

42 Lat/Long: 39°52’20.48” / 76°39’34.58”

Barshinger Run

Stream Restoration
North Hopewell & York Twps.



General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Barshinger Run (TSS)
Stream Restoration Length (ft):	2,000
Cost ($)	2,900,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	1,500,000
Cost ($) / lb	1.93

Description

This project includes stream restoration with reconnection to the floodplain and a riparian buffer. Project is shovel ready.

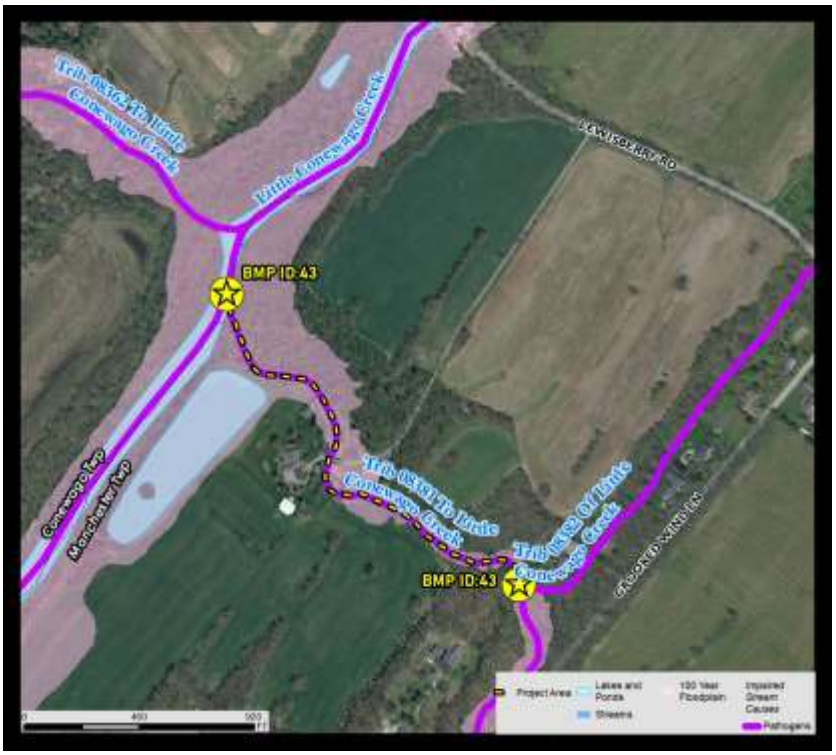
Notes

TSS reduction based on “Time based field measurements using bank pins. Project is part of Performance Based Contract with ARRC.

43 Lat/Long: 40°01’53.886” / 76°47’1.258”

Crooked Wind Tributary Restoration

Stream Restoration
Manchester Twp.



General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	
Stream Restoration Length (ft):	2,200
Cost ($)	396,000

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	98,736
Cost ($) / lb	2.02

Description

Stream restoration with reconnection to the floodplain and a riparian buffer.

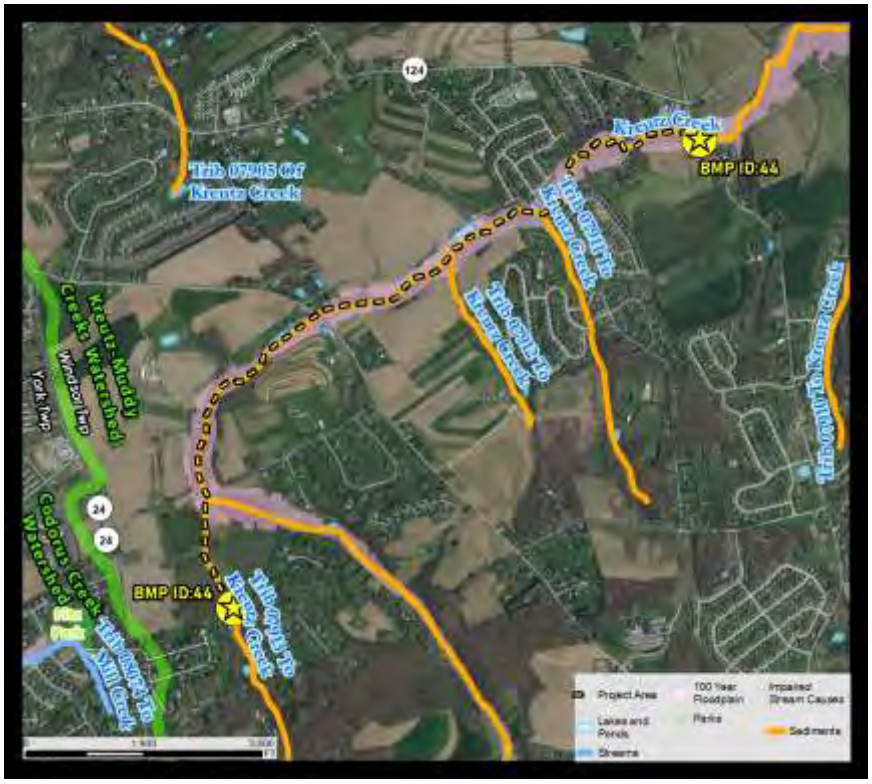
Notes

Project sponsor is Hauck; submitted by Ecostruction.

44 Lat/Long: 39°56’18.28” / 76°38’16.44”

Kreutz Creek Restoration

Stream Restoration
Windsor Twp.



General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Kreutz Creek
NPDES Permit req.:	Yes
Impaired Stream:	Kreutz Creek (TSS)

Stream Restoration Length (ft): 15,340

Cost ($)
3,681,6000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr): 688,459

Cost ($) / lb 2.45

Description

This project includes stream restoration with reconnection to the floodplain and a riparian buffer.

Notes

Project Sponsor is Spartan Heights, LLC; project submitted by Ecostruction.

45 Lat/Long: 39°52’15.08” / 76°33’46.89”

Pine Run

Stream Restoration
Windsor Twp.

General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes
Impaired Stream: Pine Run (TSS)	
Stream Restoration Length (ft):	1,472
Cost ($)	1,980,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr): 860,000

Cost ($) / lb 2.30

Description

This project includes stream restoration with reconnection to the floodplain and a riparian buffer. Project is shovel ready.

Notes

TSS reduction based on “Time based field measurements using bank pins.” Project is part of Performance Based Contract with ARRC. Planned for construction in 2022.

46 Lat/Long: 39º 58’ 11.7474”/ 76º 45’ 1.4034”

Lincoln Park

Stream Restoration
York City

General Information

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Willis Run (TSS)
Stream Restoration Length (ft):	515
Cost ($)	154,500

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr): 23,113

Cost ($) / lb 6.68

Description

Stream restoration and floodplain restoration within Lincoln Park.

Notes

47 Lat/Long: 39º 57’ 19.5474”/ 76º 42’ 50.436

Poor House Run (Memorial Park)

Stream Restoration
York City

General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Unnamed Tributary to Codorus Creek (TSS)
Stream Restoration Length (ft):	3,000
Cost ($)	1,100,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr): 134,640

Cost ($) / lb 8.17

Description

Stream restoration and floodplain management of the stream running through Memorial Park in the City.

Notes

Project would incorporate the completion of the Broad Street Greenway; City received a PA DEP Local Stormwater BMP Implementation Grant for this project. Construction to begin fall 2020.

48 Lat/Long: 39º 58’ 14.8074”/ 76º 43’ 58.443”

UNT Willis Run (Farquar Park)

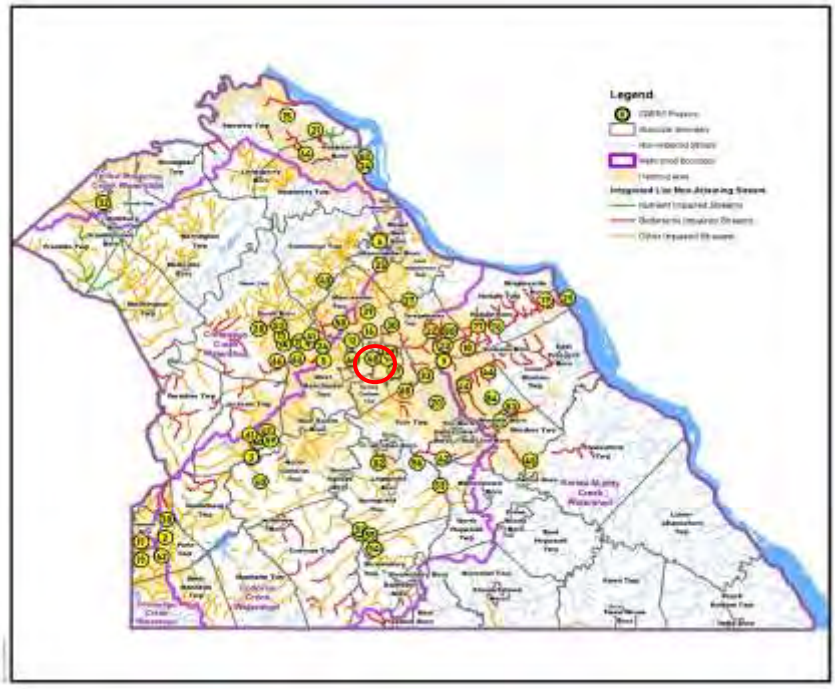
Stream Restoration
York City

General Information

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Unnamed Tributary to Willis Run (TSS)
Stream Restoration Length (ft):	3,900
Cost ($)	1,170,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	175,032
Cost ($) / lb	6.68



Description

Reconnection of the groundwater table with the highly urbanized channel carrying Willis Run towards the Codorus Creek.

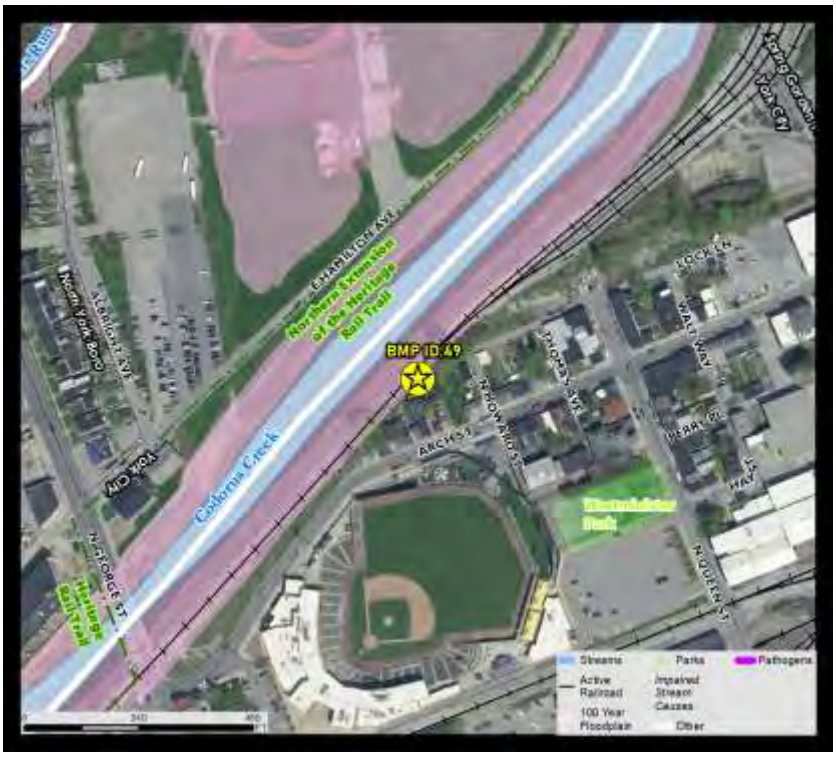
Notes

This project should include a walking path to connect the highly urbanized residential areas of the City with the Heritage rail trail system with the stream restoration efforts.

49 Lat/Long: 39°58’9.4” / 76°43’42.4”

Codorus Creek Beautification

Floodplain Restoration
York City & Spring Garden Twp.



General Information

Ownership:	Public
Secured Funding:	Partial
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Codorus Creek (TSS)
Floodplain Restoration (ac):	10
Drainage Area (ac):	142.7
Cost ($)	13,500,000

Pollutant Load Reduction

Floodplain Restoration

TSS (lbs/yr):	646,000
Cost ($) / lb	20.90

Description

This floodplain restoration project is the stormwater BMP component of the Codorus Beautification initiative. It will create a vegetated channel terrace and wetlands along 1.4 miles of the Codorus Creek.

Notes

Project is spearheaded by the YCEA and Buchart-Horn, Inc. It has secured and pending funds from multiple sources. Phase I (2.4 acres) is expected to begin construction is 2021.

50 Lat/Long: 39º 59’ 42.0714”/ -76º 50’ 59.82”

Dover Township Eagle View Park

Stream Restoration
Dover Township

General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	Yes
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Stream:	Fox Run (non-impaired)
	UNT to Fox Run (non-impaired)
Stream Restoration Length (ft):	4,062
Cost ($)	2,413,742

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr): 182,303

Cost ($) / lb 13.24

Description

Stream and floodplain restoration on a former golf course property along Fox Run and an unnamed tributary to Fox Run. Site is now a Township park.

Notes

Received Growing Greener Grant for construction. Project anticipated for completion in 2021.

51 Lat/Long: 39°48’23.19” / 76°44’50.50”

South Branch Codorus Creek (Cwiklinski-Ness)

Stream Restoration

Springfield & Codorus Twps.

General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Codorus Creek (TSS)
Stream Restoration Length (ft):	1,567
Cost ($)	1,980,000

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	1,140,000
Cost ($) / lb	1.74

Description

This stream restoration project also includes reconnection to the floodplain and a riparian buffer. Design is complete and permits are in hand. It is shovel ready.

Notes

TSS reduction based on “Time based field measurements using bank pins. Project is part of Performance Based Contract with ARRC. Construction planned for 2023.

52 Lat/Long: 39°48’23.19” / 76°44’50.50”

South Branch Codorus Creek (Cwiklinski)

Stream Restoration

Springfield & Codorus Twps.

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Codorus Creek (TSS)
Stream Restoration Length (ft):	1,800
Cost ($)	2,150,000

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	1,140,000
Cost ($) / lb	1.89

Description

Design of this stream restoration project is underway. It will include reconnection to the floodplain and a riparian buffer.

Notes

TSS reduction based on “Time based field measurements using bank pins. Project is part of Performance Based Contract with ARRC. If project is needed to meet contracted sediment reduction, YCSWC will fully fund.

53 Lat/Long: 39°51'18.90" / 76°39'25.82"

East Branch Codorus Creek (Zeigler)

Stream Restoration
Springfield & North Hopewell Twps.

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Codorus Creek (TSS)
Stream Restoration Length (ft):	2,100
Cost ($)	7,490,000

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	3,500,000
Cost ($) / lb	2.14

Description

Stream assessment and conceptual design is complete. It will include reconnection to the floodplain and a riparian buffer.

Notes

TSS reduction based on "Time based field measurements using bank pins. Project is part of Performance Based Contract with ARRC. If project is needed to meet contracted sediment reduction, YCSWC will fully fund.

54 Lat/Long: 39°48’6.43” / 76°44’21.63”

South Branch Codorus Creek (Ness-Mobility Independent Transportation)

Stream Restoration
Springfield, Shrewsbury & Codorus Twps.

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Codorus Creek (TSS)
Stream Restoration Length (ft):	1,100
Cost ($)	5,992,000

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	2,800,000
Cost ($) / lb	2.14

Description

Design of this stream restoration project is underway. It will include reconnection to the floodplain and a riparian buffer.

Notes

TSS reduction based on “Time based field measurements using bank pins.” Project is part of Performance Based Contract with ARRC. If project is needed to meet contracted sediment reduction, YCSWC will fully fund.

55 Lat/Long: 39°48’7.62” / 76°44’27.19”

Centerville Creek

Stream Restoration
Springfield, Shrewsbury & Codorus Twps.

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Codorus Creek (TSS)
Stream Restoration Length (ft):	700
Cost ($)	1,669,200

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	780,000
Cost ($) / lb	2.14

Description

Design of this stream restoration project is underway. It will include reconnection to the floodplain and a riparian buffer.

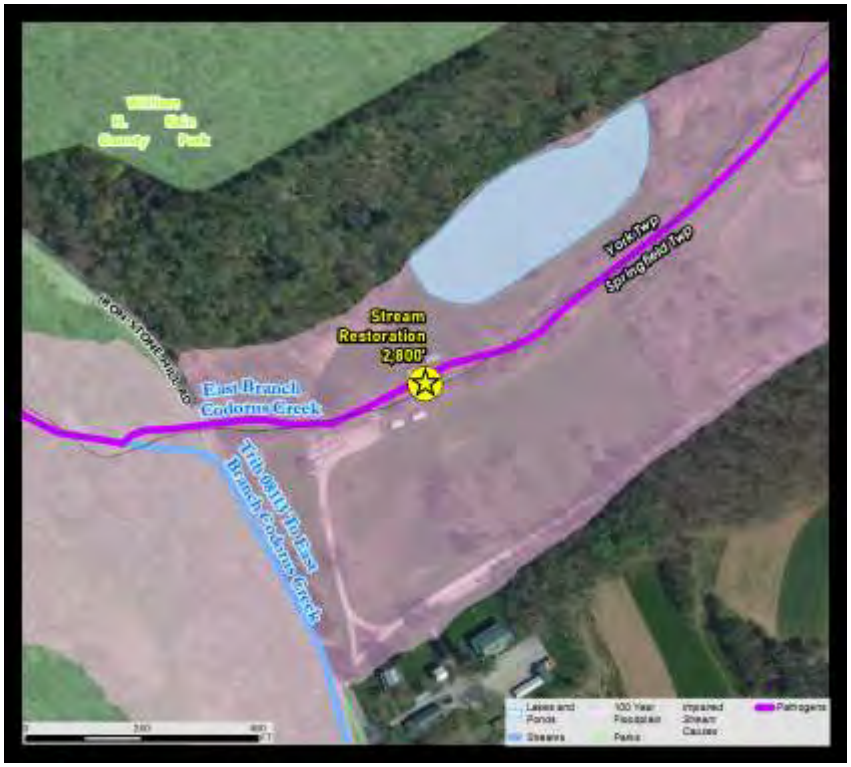
Notes

TSS reduction based on “Time based field measurements using bank pins. Project is part of Performance Based Contract with ARRC. If project is needed to meet contracted sediment reduction, YCSWC will fully fund.

56 Lat/Long: 39°52'20.10" / 76°40'36.80"

East Branch Codorus Creek (IWLA)

Stream Restoration
York & Springfield Twps.



General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Codorus Creek (TSS)
Stream Restoration Length (ft):	2,800
Cost ($)	6,420,000

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	3,000,000
Cost ($) / lb	2.14

Description

Stream assessment and conceptual design is complete. It will include reconnection to the floodplain and a riparian buffer.

Notes

TSS reduction based on "Time based field measurements using bank pins. Project is part of Performance Based Contract with ARRC. If project is needed to meet contracted sediment reduction, YCSWC will fully fund.

57 Lat/Long: 40º 8’ 57.8394”/ 76º 44’ 55.4634”

138 South York Street (Fishing Creek) Phase 1

Stream Restoration
Goldsboro Borough

General Information

Ownership:	Public/Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Yellow Breeches Creek
NPDES Permit req.:	Yes
Stream:	Fishing Creek (non-impaired)
Stream Restoration Length (ft):	300
Cost ($)	100,314

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	13,464
Cost ($) / lb	7.45

Description

Stream Restoration of Fishing Creek in Goldsboro Borough Park.

Notes

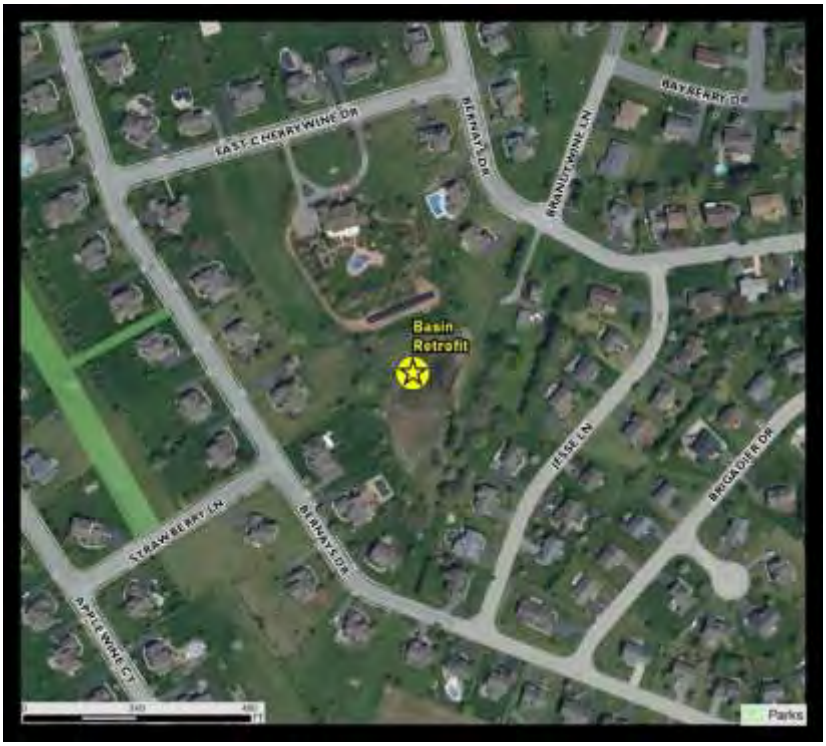
Borough received a Local BMP Implementation Grant from PA DEP. Project completed September 2019. An extension of this project is proposed (ID #34 – Phase 2).

58 Lat/Long: 39º 59’ 46.78”/ 76º 45’ 45.21

MacGregor Downs

Basin Retrofit

Manchester Township



General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	No
Closest downstream waterway:	
	Unnamed Trib to Codorus Creek
	Impairment (TSS)

Basin Retrofit	
Basin footprint (ac)	1.0
Basin drainage area (ac)	46.8
Cost ($)	121,500

Pollutant Load Reduction

Basin Retrofit TSS (lbs/yr):	20,100
Cost ($) / lb	6.04

Description

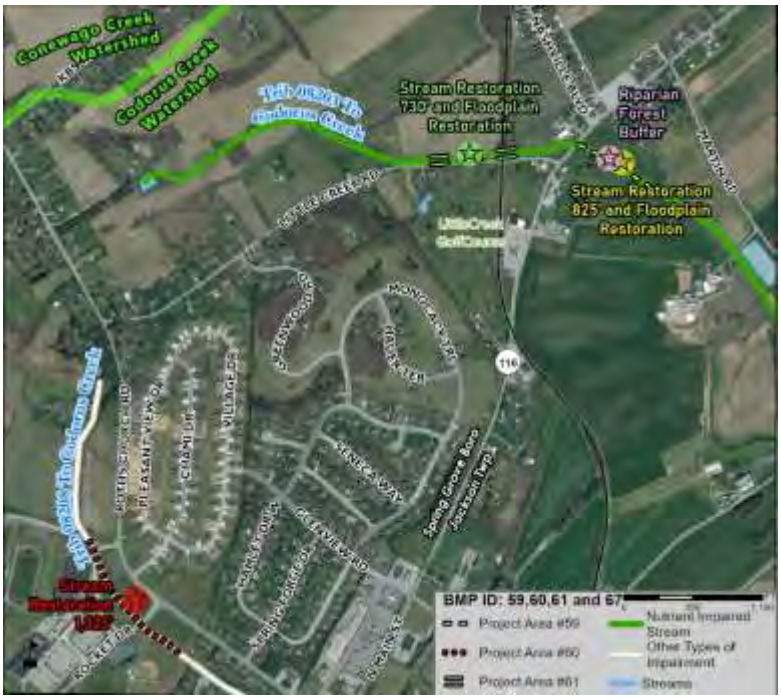
This is a retrofit of a stormwater basin located within the MacGregor Downs Development in Manchester Township. The project will add infiltration BMPs and plantings to improve water quality .

Notes

59 Lat/Long: 39º 53’ 48.9732”/ 76º 51’ 14.7234”

BMPs #1

Stream Restoration
Jackson Twp.



General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Little Creek (Nutrients)

Stream Restoration Length (ft):

Little Creek	825

Cost ($)	240,000

Pollutant Load Reduction

	TSS (lbs/yr)
Stream Restoration:	
Little Creek	64,600
Cost ($) / lb	3.72

Description

Restoration of Little Creek in Township park. Will include reconnection to floodplain and riparian buffer.

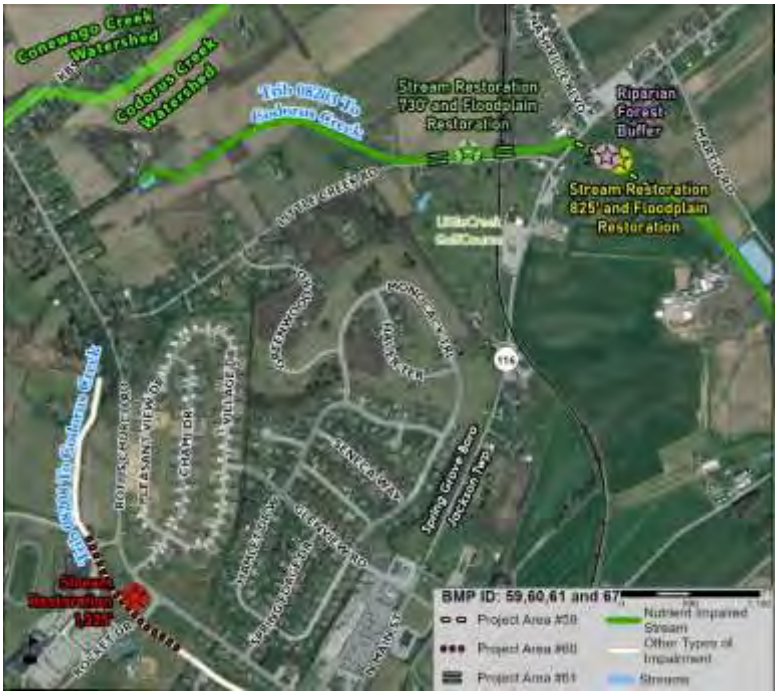
Notes

Project completed October 2018.

60 Lat/Long: 39º 53’ 11.0754”/ 76º 52’ 10.416”

BMP #2

Stream Restoration
Jackson Twp.



General Information

Ownership:	Public/Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes

Impaired Stream:
UNT W Br Codorus Creek (Pathogens)

Stream Restoration Length (ft):

UNT W Br Codorus	1,325
Cost ($)	397,500

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr)	59,466
UNT W Br Codorus	
Cost ($) / lb	6.51

Description

Restoration of a UNT to West Branch Codorus Creek with reconnection to floodplain and riparian buffer.

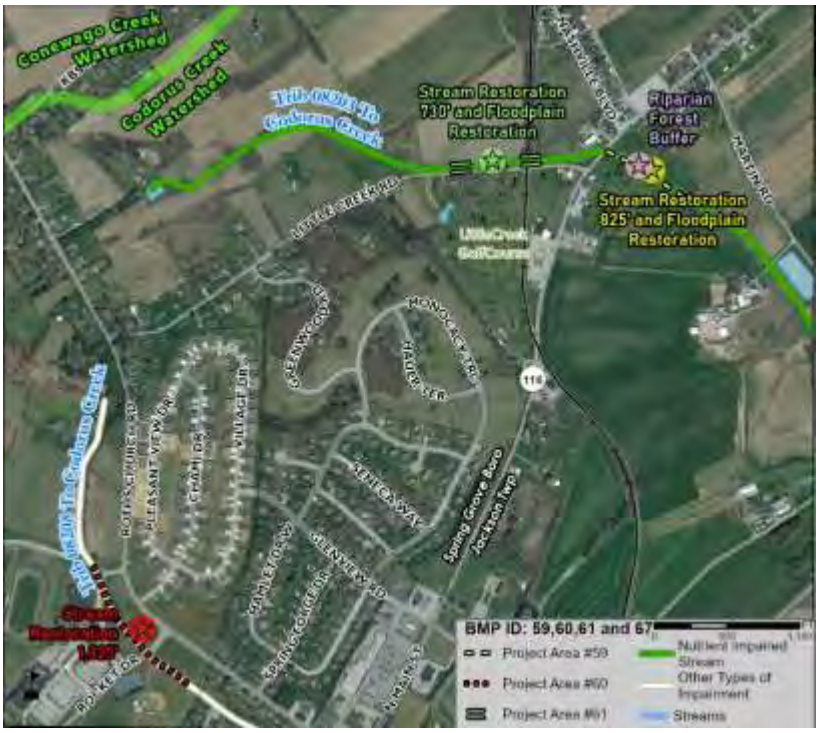
Notes

This project is an extension of Project #3, Campus Avenue Stream Restoration, completed July 2019.

61 Lat/Long: 39º 53’ 49.884”/-76º 51’ 31.86”

BMP #3

Stream Restoration
Jackson Twp.



General Information

Ownership:	Private
Secured Funding:	Partial
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Little Creek (Nutrients)

Stream Restoration Length (ft):

Little Creek	730

Pollutant Load Reduction

Stream Restoration:	TSS (lbs/yr)
Little Creek	50,000
Cost ($) / lb:	6.57

Description

This project includes restoration of Little Creek with reconnection to the floodplain and a riparian buffer.

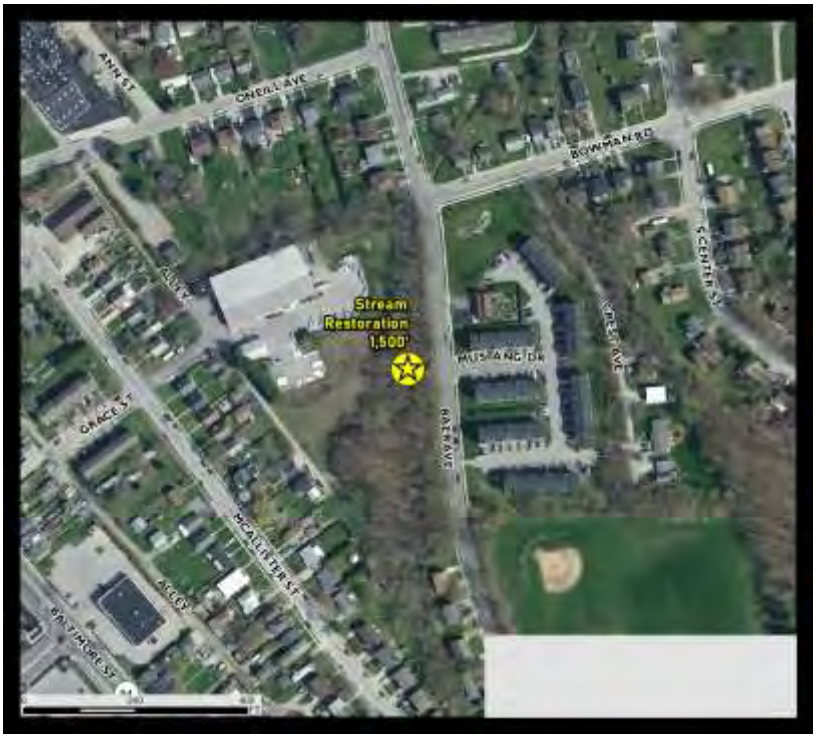
Notes

Anticipated to begin construction in 2021. The project is an extension of Project #59 completed October 2018.

62 Lat/Long: 39°47'20.04" / 76°57'59.4"

West Branch Codorus Creek

Stream Restoration
West Manheim & Penn Twps.



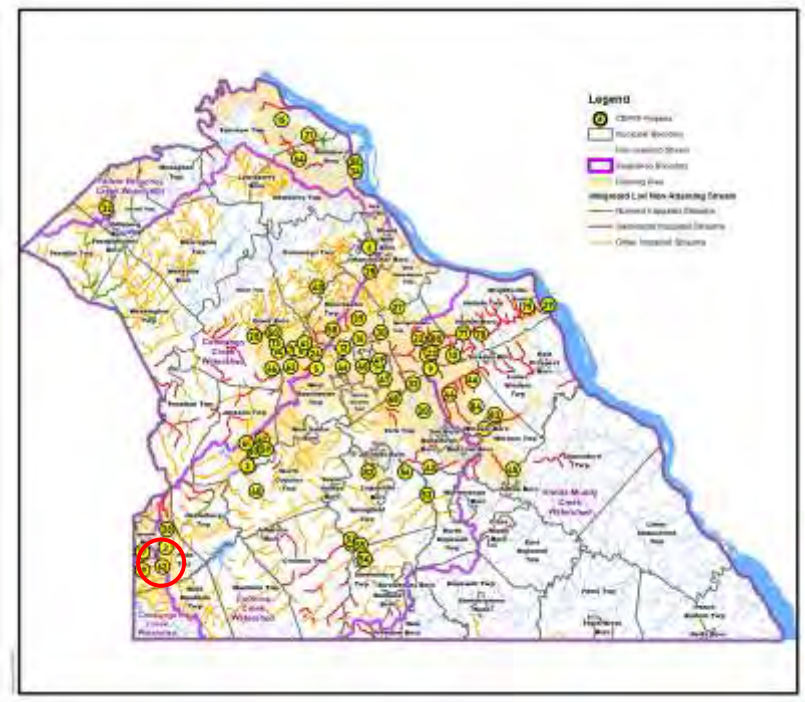
General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Codorus Creek (TSS)
Stream Restoration Length (ft):	1,500
Cost ($)	3,210,000

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	1,500,000
Cost ($) / lb	2.14



Description

Stream assessment and conceptual design is complete. It will include reconnection to the floodplain and a riparian buffer.

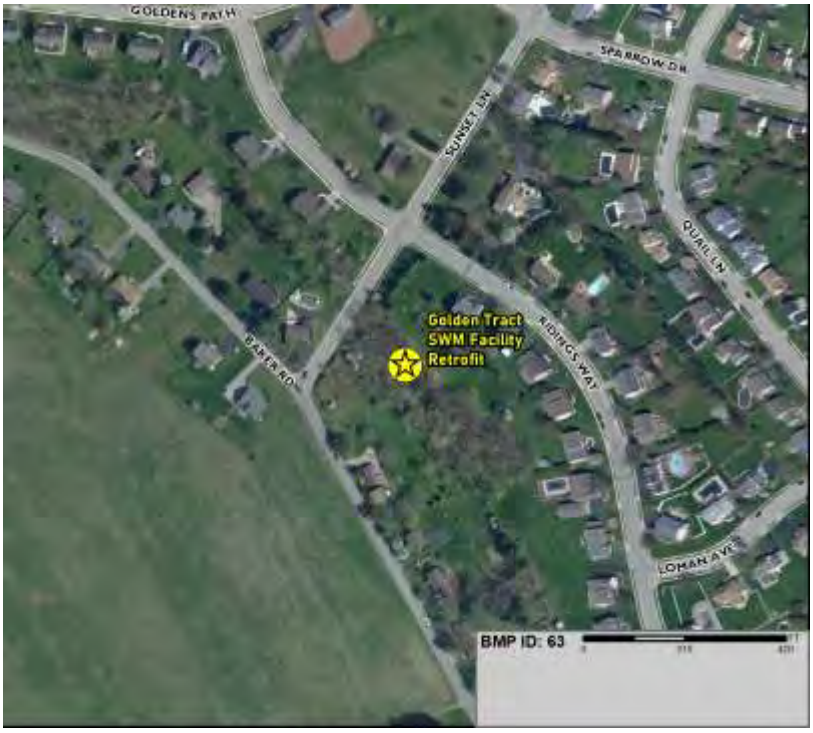
Notes

TSS reduction based on "Time based field measurements using bank pins. Project is part of Performance Based Contract with ARRC. If project is needed to meet contracted sediment reduction, YCSWC will fully fund.

63 Lat/Long: 39°57'45.77" / 76°49'2.96"

Golden Tract SWM Facility Retrofit

Basin Retrofit
West Manchester Twp.



General

Ownership:	Private
Secured Funding:	Yes
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	
Conewago Creek (TSS & Pathogens)	
Basin Footprint (ac):	1.0
Drainage Area (ac):	17.6
Cost ($)	435,936

Pollutant Load Reduction

Basin Retrofit

TSS (lbs/yr):	5,835
Cost ($) / lb	74.71

Description

Retrofit of an existing basin to add water quality improvements that will increase infiltration. Basin assessment is complete.

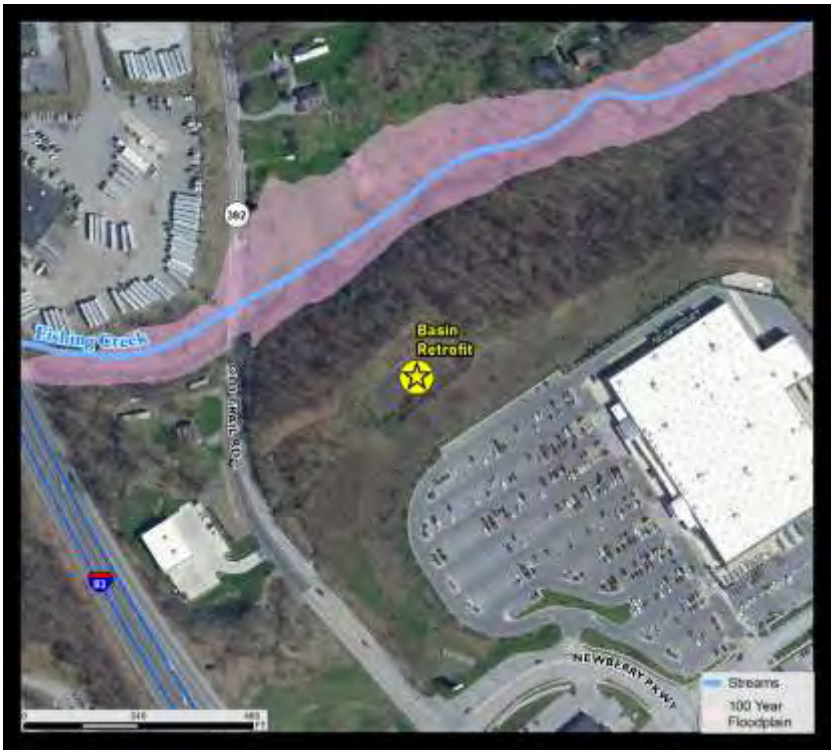
Notes

TSS reduction based on DEP SWM Manual and OPTI technology. Project is part of Performance Based Contract with ARRC.

64 Lat/Long: 40°08’59.90” / 76°48’56.20”

Walmart SWM Facility Retrofit

Basin Retrofit
Newberry Twp.



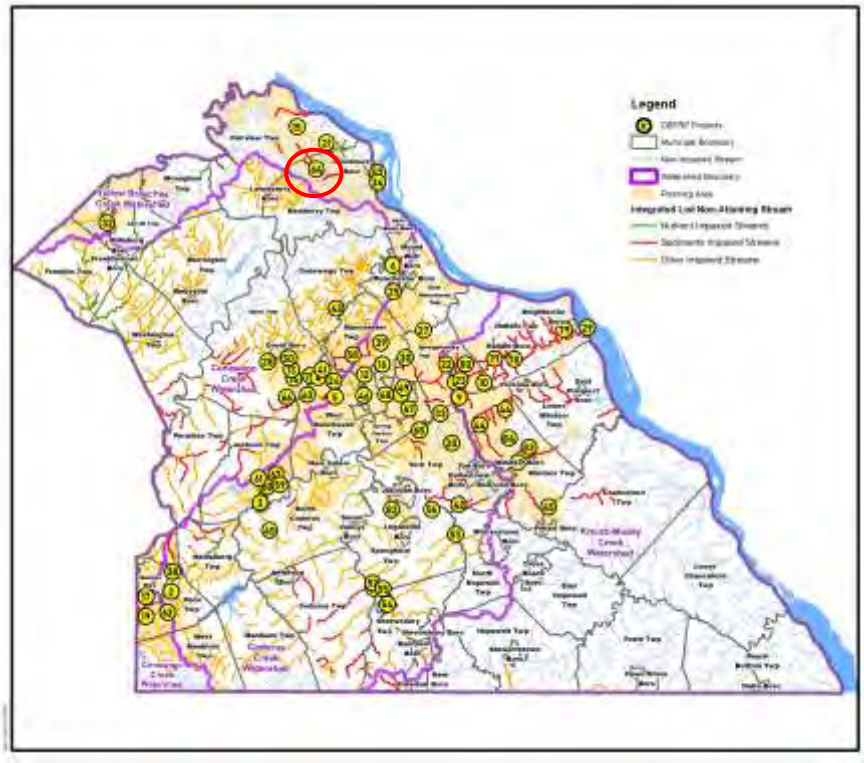
General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	No
Watershed:	Yellow Breeches Creek
NPDES Permit req.:	Yes
Impaired Stream:	
Yellow Breeches Creek (TSS & Habitat)	
Basin Footprint (ac):	1.0
Drainage Area (ac):	16.3
Cost ($)	502,456

Pollutant Load Reduction

Basin Retrofit

TSS (lbs/yr):	3,310
Cost ($) / lb	151.80



Description

Retrofit of an existing basin on Walmart property to add water quality improvements that will increase infiltration. Basin assessment is complete.

Notes

TSS reduction based on DEP SWM Manual and OPTI technology. Project is part of Performance Based Contract with ARRC.

65 Lat/Long: 39º 54’ 53.4954”/ 76º 35’ 2.4”

Fishing Creek Study – Stream Restoration

Stream Restoration / Riparian Buffer

Windsor Borough

General Information

Ownership:	Private
Secured Funding:	No
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	Fishing Creek (TSS)
Stream Restoration Length (ft):	6,700
Cost ($)	2,010,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	300,696
Cost ($) / lb	6.68

Description

Improvements to Fishing Creek through the entire Borough (approx. 6,700 LF), including planting buffers, filtering practices, and stream stabilization measures.

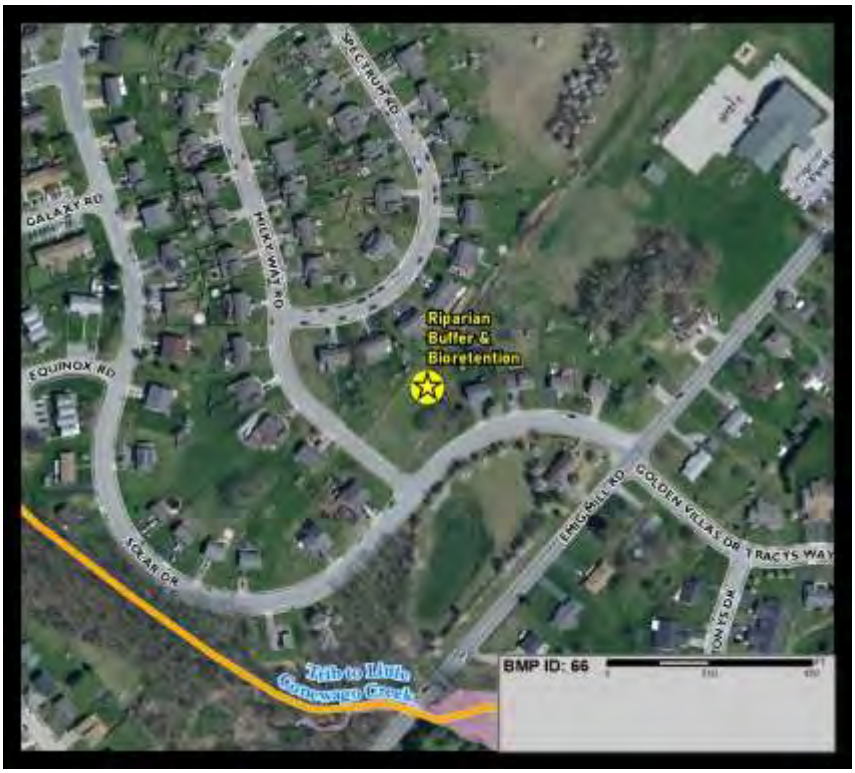
Notes

The ACOE completed an evaluation of the entire creek corridor through the Borough. Waiting on determination of additional funding for detailed design.

66 Lat/Long: 39°58’5” / 76°50’2”

Solar Drive Buffer Planting & Bioretention

Riparian Buffer & Bioretention
Dover Twp.



General Information

Ownership:	Both
Secured Funding:	No
Designs:	No
Watershed:	Conewago Creek
NPDES Permit req:	No
Impaired Stream:	Conewago Creek (TSS)
Bioretention:	
Basin footprint (ac):	0.12
Drainage area (ac):	25.1
Riparian Buffer	
Area (ac):	2.09
Drainage area (ac):	6.03
Cost ($):	40,200

Pollutant Load Reduction

Bioretention TSS (lbs/yr):	1,236
Riparian Buffer TSS (lbs/yr)	2,563
Total:	3,799
Cost ($) / lb	10.58

Description

This Project includes a riparian buffer and a bioretention facility utilizing a series of berms to encourage infiltration and minimize runoff.

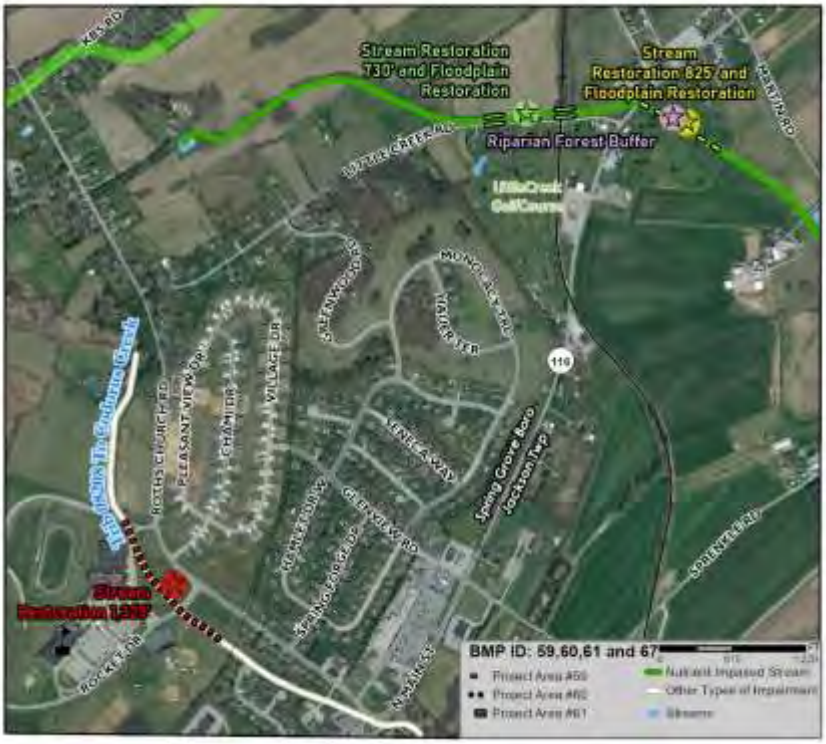
Notes.

LandStudies completed a Feasibility Study for this project April 2020. Proposed for implementation in 2021.

67 Lat/Long: 39°53’49.3656” / 76°51’16.3836”

Little Creek Park

Riparian Forest Buffer
Jackson Twp.



General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req:	No
Impaired Stream:	Codorus Creek (TSS)
Riparian Buffer Area (ac):	2.67
Cost ($):	9,375.00

Pollutant Load Reduction

Riparian Buffer TSS (lbs/yr)	5,042
Cost ($) / lb	1.86

Description

This Project includes a 2.67 acre riparian forest buffer planted along Little Creek in the Little Creek Park. It also includes converting 0.55 acres of lawn to meadow habitat and conversion of 0.54 acres of lawn to a “food forest” consisting of fruit/nut trees and shrubs.

Notes

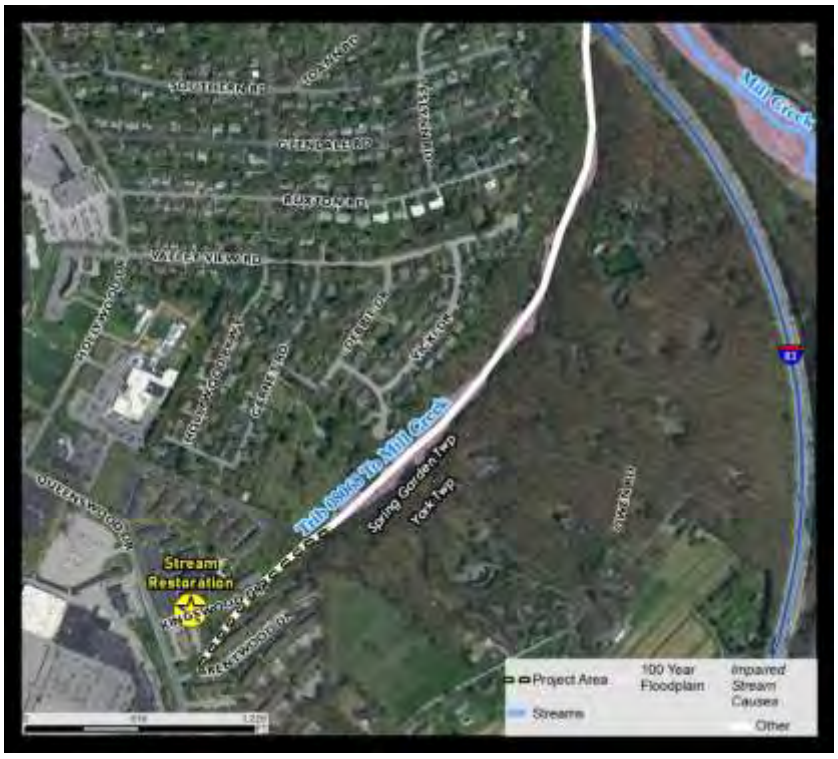
The Alliance for the Chesapeake Bay is sponsoring this project. Secondary benefits include reduced erosion, increased infiltration, reduced flooding, increased wildlife habitat, and educational opportunities.

68 Lat/Long: 39º 56’ 29.9754”/ 76º 41’ 25.224”

Queenswood Improvements

Stream Restoration

York Township



General Information

Ownership:	Public
Secured Funding:	Partial
Designs:	No
Watershed:	Codorus Creek
NPDES Permit req.:	Yes
Impaired Stream:	Unnamed Tributary to Mill Creek (TSS)
Stream Restoration Length (ft):	
York Twp.	900
Cost ($)	330,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr): 40,392

Cost ($) / lb 8.17

Description

Stream restoration involves approximately 1,100 ft along an impaired tributary to Mill Creek in York Township. This tributary receives stormwater runoff from a large drainage area that includes a significant amount of impervious area from the Queenswoods Shopping Plaza. Multiple segments of highly-eroded streambank were observed during a field visit to the site. The stream is contained within a sanitary sewer easement and is therefore relatively easily accessible.

Notes

Design and permitting underway.

76 Lat/Long: 39º 58’ 42.2832”/ 76º 49’ 13.5942”

Danielle & Willipa Drives

Stream Restoration
Dover Township

General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Conewago Creek
NPDES Permit req.:	Yes
Impaired Stream:	Unnamed Tributary to Little Conewago Creek (pathogens)
Stream Restoration Length (ft):	800
Cost ($)	240,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	35,904
Cost ($) / lb	6.68

Description

Restoration of 800 feet of stream within a residential development.

Notes

Project completed February 2019.

77 Lat/Long: 40º 0’ 1.224”/ 76º 36’ 35.748”

Beaver Street Stream/Swale Restoration

Stream/Swale Restoration
Hallam Borough

General Information

Ownership:	Public/Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes
Stream:	Unnamed Trib to Kreutz Creek
Stream Restoration Length (ft):	675
Swale Restoration (ac):	0.09
Swale Restoration Drainage Area (ac):	22.4
Cost ($)	345,000

Pollutant Load Reduction

Stream/Swale Restoration TSS (lbs/yr):	35,904
Cost ($) / lb	9.61

Description

This project includes restoration of a stream and swale. It will stabilize the immediate system, provide water quality benefits, and improve SWM conditions. Was unable to obtain landowner agreement for wetlands restoration component shown on the map.

Notes

Construction scheduled for 2021.

78 Lat/Long: 40º 0’ 2.3034”/ 76º 36’ 2.9514”

Restoration of Kreutz Creek

Stream Restoration
Hallam Borough

General

Ownership:	Public
Secured Funding:	No
Designs:	No
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes
Stream:	Kreutz Creek

Stream Restoration Length (ft)

Kreutz Creek:	6,000

Cost ($)	1,800,000

Pollutant Load Reduction

Stream Restoration

TSS (lbs/yr):	269,280
Cost ($) / lb	6.68

Description

Project includes stream restoration of approximately 6,000 feet of Kreutz Creek. The stream restoration will extend from the western Borough boundary to just past the wastewater treatment plant.

Notes

79 Lat/Long: 40º 1’ 31.26”/ 76º 32’ 5.28”

Riverfront Park GI Plan

Bioretention Basin #2, Bioswale #2
Wrightsville Borough

General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	Yes
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes
Waterway:	Susquehanna River

Bioretention Basin #2 and Bioswale #2

Basin footprint (ac):	0.1
Basin drainage area (ac):	11.9
Cost ($)	250,000

Pollutant Load Reduction

Bioretention TSS (lbs/yr):	4,875
Cost ($) / lb	51.28

Description

This project includes construction of Basin #2 and Bioswale #2. Improvements include amended soils and planting of native trees, shrubs, and seeding.

Notes

Project is located in Riverfront Park and was completed October 2017. Secondary benefits are park improvement, reduced flooding, and educational opportunities.

80 Lat/Long: 39º 59’ 9.672”/ 76º 39’ 31.3194”

Prison Property SW Facilities Upgrade

Basin Retrofits (2)
Springettsbury Township

General Information

Ownership:	Public
Secured Funding:	Yes
Designs:	Yes
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes

Closest downstream impaired waterway:
Unnamed Trib to Kreutz Creek (TSS)

Basin Retrofits	
Basin footprints (ac)	1.1
Basin drainage areas (ac)	35
Cost ($)	200,000

Pollutant Load Reduction

Basin Retrofits TSS (lbs/yr):	10,533
Cost ($) / lb	18.61

Description

Three (3) stormwater basin retrofits, with removal of concrete low flow channels, installation of level spreader, and modification of existing eroded swale. Areas planted with a wetland mix.

Notes

This is a York County project. The County received a $200,000 Local Stormwater BMP Implementation Grant from PADEP to design and construct the project. Completed May 2019.

82 Lat/Long: 39º 52’ 32.2176”/ 76º 43’ 10.7436”

Ensminger Drive Swale Rehabilitation

Swale Retrofit
Springfield Township

General Information

Ownership:	Public/Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Codorus Creek
NPDES Permit req.:	Yes

Closest downstream impaired waterway:
Unnamed Trib to Barshinger Creek (TSS)

Vegetated Swale

Length (ft)	200
Area (ac)	0.18
Drainage Area (ac)	22.45

Cost ($) 275,600

Pollutant Load Reduction

Swale Stabilization (lbs/yr): 20,110

Cost ($) / lb 13.70

Description

This project involves the stabilization of a severely eroded swale in Springfield Township. As was common in the 1960s and 70s, the entire development drains to a few inlets, which discharge directly to this swale. No stormwater basin or other control facility was installed to manage this flow.

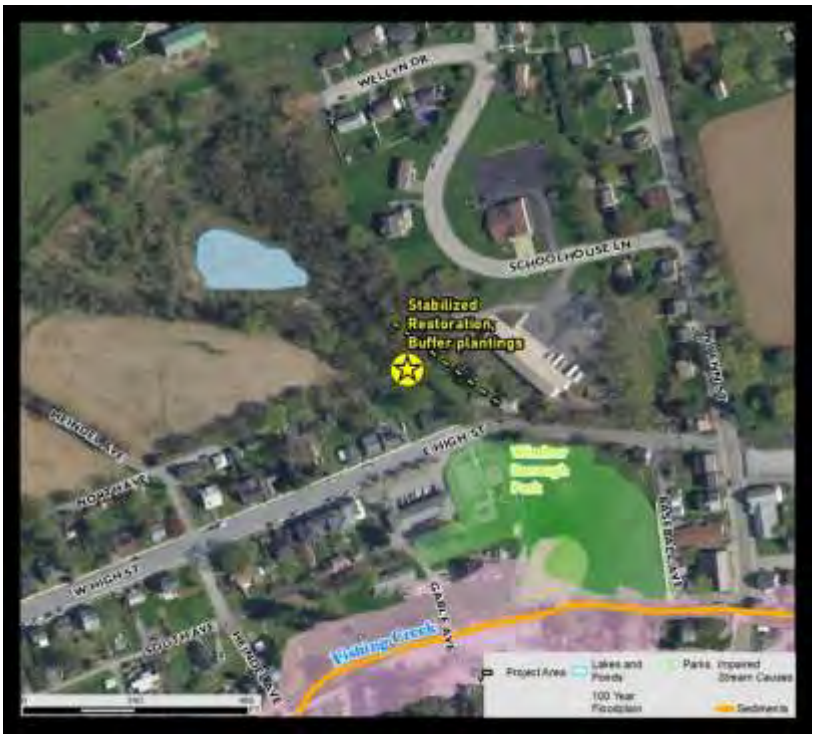
Notes

Project completed November 2017.

83 Lat/Long: 39º 55’ 1.776”/ 76º 34’ 57.756”

Stream/Drainage Improvements

Stream Restoration
Windsor Borough



General Information

Ownership:	Private
Secured Funding:	Partial
Designs:	No
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	Yes
Impaired Stream:	Fishing Creek (TSS)
Stream Restoration Length (ft):	1,690
Cost ($)	384,000

Pollutant Load Reduction

Stream Restoration TSS (lbs/yr):	75,847
Cost ($) / lb	5.06

Description

Elimination of a deteriorated CMP to create a natural channel bottom and stabilized stream channel on the Lion’s Club property and restoration of the connecting stream on the adjacent property. Project will also include floodplain reconnection and wetland enhancement where possible.

Notes

Project sponsors are the Lion’s Club and Barclay. GLBA submitted the project. Implementation may occur in two phases.

84 Lat/Long: 39º 56’ 6.4356”/ 76º 36’ 22.968

Milner Heights Basin Retrofit

Basin Retrofit
Windsor Township

General Information

Ownership:	Private
Secured Funding:	Yes
Designs:	Yes
Watershed:	Kreutz-Muddy Creek
NPDES Permit req.:	No
Closest downstream waterway:	Unnamed Trib to Cabin Creek

Basin Retrofit

Basin footprint (ac)	1.0
Basin drainage area (ac)	42
Cost ($)	70,000

Pollutant Load Reduction

Basin Retrofit TSS (lbs/yr):	20,110
Cost ($) / lb	3.48

Description

This is a retrofit of an old stormwater basin located within the Milner Heights Development in Windsor Township. The project will add native plantings and sediment forebay for water quality improvements.

Notes

Basin is privately-owned and the Township has entered into an operation and maintenance agreement with the property owner. Project completed November 2019.

APPENDIX VIII

Municipal O&M Requirements

MUNICIPAL SWM ORDINANCE BMP O & M REQUIREMENTS		
MUNICIPALITY	**O & M AGREEMENT/PLAN**	**INSPECTION (MINIMUMS)**
Carroll Township	Township and the developer shall enter into an Agreement, which shall be recorded,setting forth maintenance responsibilities of the SWM facilities; the deed reference to such SWM facilities shall be in the form of a deed restriction imposing responsibilities for the maintenance of the facilities.	Maintain vegetated channels and other areas according to specifications in the E&S Manual; Reestablishment of vegetation by seeding and mulching or sodding of scoured areas or areas where vegetation hs not been successfully established; Mowing as necessary and where permitted to maintain adequate stands of grass and to control weeds; Removal of silt from all permanent structures which trap silt and sediment in order to keep the material from building up in the grass waterways thus reducing their capacity; Regular inspection of the areas in question to assure proper maintenance and care; Removal of silt from all permanent drainage structures in order to maintain the design storarge volumes; Regular maintenance programs shall be established and maintained. rt to the Borough regarding the condition of the facility and recommending necessary repairs, if needed.
Codorus Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually; During or immediately after cessation of a 10-year ir greater storm; A report of all inspections must be submitted to the Township annually; & All inspection records shall be maintained by the landowner and shall be made available to the Township upon written request.
Dover Township	Agreement must be recorded and cover all SW control facilities which are to be privately owned; All facilities shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually for the first 5 years; Once every 3 years thereafter; During or immediately after cessation of a 10-year or greater storm; All SW BMPs serving non-residential development, or serving more than one residential unit, shall be inspected and a report of such inspection shall be submitted to the Township for review on an annual basis; & All inspection records shall be maintained by the landowner and shall be made available to the Township upon written request.
Fairview Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan and shall all facilitiesshall be kept in a safe and attractive manner.	Every other calendar year; During or immediately after cessation of a 10-year or greater storm; A report of all inspections shall be submitted to the Township by March 15 of the following year; Property owner shall develop an inspection report that is consistent with the O&M Plan; All inspection records shall be maintained by the landowner for a period of at least 5 years and be made available ot the Township upon written request.

MUNICIPALITY	O & M AGREEMENT/PLAN	INSPECTION (MINIMUMS)
Goldsboro Borough	The Borough and the developer shall enter into an Agreement, which shall be recorded, setting forth maintenance responsibilities for the SWM facilities; If the developer conveys the property to another party which contains any SWM facilities, the deed shall contain a reference to such SWM facilities in the form of a deed restriction imposing responsibilities upon said property owner for the maintenance of any SWM facilities within the parcel boundaries or by reference to the recorded Agreement.	Maintain vegetated channels and other areas according to specifications in the DEP E&S Manual; Reestablishment of vegetation by seeding and mulching or sodding of scoured areas or areas where vegetation hs not been successfully established; Mowing as necessary and where permitted to maintain adequate stands of grass and to control weeds; Removal of silt from all permanent structures which trap silt or sediment in order to keep the material from building up in the grass waterways thus reducing thier capacity; Regular inspection of the areas in question to assure proper O&M; Detention and Retention Basins shall be inspected annually for 10 years and immediately after cessation of a storm event having a 1-year or greater Return Period; Submit a reporrt to the Borough regarding the condition of the facility and recommending necessary repairs, if needed; Removal of silt from all permanent drainage structures in order to maintain the design storage volumes; Regular maintenance programs shall be established and maintained.
Hallam Borough	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually for the first 5 years; Once every 3 years thereafter; During or immediately after cessation of a 10-year or greater storm.
Hanover Borough	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually for the first 5 years; Once every 3 years thereafter; During or immediately after cessation of a 10-year or greater storm; Report of all inspections shall be submitted to the Borough by the end of the calendar year in which inspections were conducted; All inspection records shall be maintained by the landowner/successor for a period of not less than 5 years from date of inspection and shall be made available to the Borough within 5 calendar days of receipt of written request by the Borough.
Jackson Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually; During or immediately after cessation of a storm greater than 3 inches in 24 hours; A report of all inspections must be submitted to the Township annually; & All inspection records shall be maintained by the landowner.

MUNICIPALITY	O & M AGREEMENT/PLAN	INSPECTION (MINIMUMS)
Lewisberry Borough	Borough and the owner shall enter into an Agreement, which shall be recorded,setting forth maintenance responsibilities of the SWM facilities; the owner shall maintain all facilities in accordance with the approved maintenance schedule in the O&M Plan, which schedule and Plan shall be incorporated in and made part of the Agreement.	Maintain vegetated channels and other areas according to specifications in the E&S Manual; Reestablishment of vegetation by seeding and mulching or sodding of scoured areas or areas where vegetation hs not been successfully established; Mowing as necessary and where permitted to maintain adequate stands of grass and to control weeds; Removal of silt from all permanent structureswhich trap silt or sediment in order to keep the material from building up in the grass waterways thus reducing thier capacity; Removal of silt from all permanent drainage structures in order to maintain the design storage volumes; Regular maintenance programs shall be established and maintained; Regular inspection of the areas in question to assure proper O&M: Annually for 10 years and immediately after cessation of a storm event having a 1-year or greater return period; thereafter once every 3 years and immediately after cessation of a storm event having a 1-year or greater return period; Submit a reporrt to the Borough regarding the condition of the facility and recommending necessary repairs, if needed; All inspection records shall be maintained by the owner and be made available to the Borough on request.
Manchester Borough	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded cover all SW control facilities which are to be privately owned.	Annually; During or immediately after cessation of a 10-year or greater storm; A report of all inspections must be submitted to the Borough annually; & All inspection records shall be maintained by the landowner and shall be made available to the Borough upon written request.
Manchester Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually; During or immediately after cessation of a 10-year or greater storm; A report of all inspections must be submitted to the Township annually; Report shall describe the condition of BMPs and list the necessary repairs tovbe completed; & All inspection records shall be maintained by the landowner and made available to the Township upon written request.
Newberry Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW controls which are to be privately owned; Facilities shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually for the first 5 years; Once every 3 years thereafter; During or immediately after cessation of a 10-year or greater storm.
North Codorus Township	Plan must be recorded as a restrictive covenant that runs with the land in perpetuity; Plan shall contain provisions which clearly set forth ownership, operation, and maintenance responsibilitiesfor all permanent SWM facilities; Agreement is subject to the approval of the Township, shall be recorded, shall constitute a covenant running with the property and/or equitable servitude, and shall be binding on the landowner.	For community SWM BMPs: Annually for the first 5 years and once every 3 years thereafter. For community and private SWM BMPs, upon report or information of lack of maintenance, a defect, or failure of a SWM BMP, or at such other times as the Township deems necessary and appropriate; A copy of all inspection reports shall be submitted by the landowner or the landowner's designee to the Township within 14 days of the inspection.

MUNICIPALITY	O & M AGREEMENT/PLAN	INSPECTION (MINIMUMS)
North Hopewell Township	For maintenance by a private entity, a legally binding agreement between the entity and the municipality shall be made providing for maintenance of all permanent control facilities. For maintenance by individual lot owners, a description of the facility or system and the terms of the required maintenance shall be recorded with the deed to the property.	Keep the inlet grate free of debris, etc.; All structures shall remain functional at all times; for facilities maintained by a private entity, the Township Engineer shall annually inspect all facilities deemed critical to the public welfare, as well as after each major flood event.
Penn Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement shall be recorded and cover all SW controls which are to be privately owned; Facilities shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually for the first 5 years; Once every 3 years thereafter; During or immediately after cessation of a 10-year or greater storm.
Red Lion Borough	Plan must be recorded as a restrictive deed covenant that runs with the land; Agreement must be recorded and cover all SW controls which are to be privately owned.	Annually; During or immediately after cessation of a 10-year or greater storm; A report of all inspections must be submitted to the Borough annually; & All inspection records shall be maintained by the landowner and made available to the Borough upon written request.
Shrewsbury Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually; During or immediately after cessation of a 10-year or greater storm; A report of all inspections must be submitted to the Township annually; & All inspection records shall be maintained by the landowner and made available to the Township upon written request.
Springettsbury Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually for the first 10 years; Once every 3 years thereafter; During or immediately after cessation of a 10-year or greater storm; A reportnd then once every 3 years thereafter.
Springfield Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually for the first 10 years; Once every 3 years thereafter; During or immediately after cessation of a 10-year or greater storm; A reportnd then once every 3 years thereafter; All l inspection records shall be maintained by the landowner and shall be made available to the Township on request.
Spring Garden Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in good working order in accordance with the specific O&M requirements noted on the approved Plan.	SWM BMPs included in the approved SWM site plan shall be inspected by the Township, or the Township's designee, on a regular basis in a frequency as determined by the Township; A report of all inspections shall be sent to the property owner.

MUNICIPALITY	O & M AGREEMENT/PLAN	INSPECTION (MINIMUMS)
Spring Grove Borough	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in good working order in accordance with the specific O&M requirements noted on the approved Plan.	No minimum requirements.
West Manchester Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually; During or immediately after cessation of a 10-year or greater storm; A report of all inspections must be submitted to the Township annually; & All inspection records shall be maintained by the landowner and made available to the Township upon written request.
West Manheim Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in good working order in accordance with the specific O&M requirements noted on the approved Plan.	Annually; During or immediately after cessation of a 10-year or greater storm; A report of all inspections must be submitted to the Township annually; & All inspection records shall be maintained by the landowner and made available to the Township upon written request.
Windsor Borough	Plan must be recorded as a restrictive covenant that runs with the land in perpetuity; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Maintain vegetated channels and other areas according to specifications in the E&S Manual; Reestablishment of vegetation by seeding and mulching or sodding of scoured areas or areas where vegetation hs not been successfully established; Mowing as necessary and where permitted to maintain adequate stands of grass and to control weeds; Removal of silt or sediment in order to keep material from building up in the grass waterways thus reducing thier capacity; Removal of silt from all permanent drainage structures in order to maintain the design storage volumes; Regular maintenance programs shall be established and maintained; Regular inspection by the Borough Engineer of the areas in question to assure proper O&M: Annually for 10 years and immediately after cessation of a storm event having a 10-year or 5-inch , 24-hour storm event; Submit a reporrt to the Borough regarding the condition of the facility and recommending necessary repairs, if needed.
Windsor Township	Drainage Plan shall contain an O&M Plan prepared by the developer and approved by the Municipal Engineer that outlines the required routine maintenance actions and schedules necessary to insure proper operation of the facilities; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Basins must be inspected annually for 10 years; During and immediately after cessation of a significant storm event; Submit a report to the municipality regarding the condition of the facility and recommending necessary repairs, if needed.

MUNICIPALITY	O & M AGREEMENT/PLAN	INSPECTION (MINIMUMS)
Wrightsville Borough	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually; During or immediately after cessation of a 10-year or greater storm; A report of all inspections must be submitted to the Borough annually; & All inspection records shall be maintained by the landowner and made available to the Borough upon written request.
York City	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan.	Annually; During or immediately after cessation of a 10-year or greater storm; A report of all inspections must be submitted to the Municipality annually; & All inspection records shall be maintained by the landowner and made available to the Municipality upon written request.
York Township	Plan must be recorded as a restrictive covenant that runs with the land; Agreement must be recorded and cover all SW control facilities which are to be privately owned; BMPs shall be maintained in accordance with the approved maintenance schedule in the Plan and/or Agreement.	Annually for the first 5 years; Once every 3 years thereafter; During or immediately after cessation of a 10-year or greater storm, & All inspection records shall be maintained by the landowner for not less than 5 years and shall be made available to the Municipality within 5 calendar days of receipt of written request by the Municipality.

APPENDIX IX

Intergovernmental Cooperation Agreement

INTERGOVERNMENTAL COOPERATION AGREEMENT
[to be added before final submission]