MS4 Program Management
Nutrients/Sediment Pollutant Reduction Plans (PRPs) – Update Workshop

Southwest Pennsylvania Commission (SPC)
Cranberry Township Municipal Center
Cranberry Township, PA 16066
March 1, 2017

Michael T. LaSala, CPMSM, CSI
Senior MS4 Program Manager/Analyst
APPENDIX E

POLLUTANT REDUCTION PLAN REQUIREMENTS FOR DISCHARGES TO WATERS IMPAIRED FOR NUTRIENTS AND/OR SEDIMENT

MS4 permittees with at least one stormwater discharge to surface waters considered impaired for nutrients (nitrogen and phosphorus) and/or sediment, in which a TMDL has not been developed or the TMDL has not identified a wasteload allocation (WLA) for the permittee, must develop and submit a Pollutant Reduction Plan (PRP) with the NOI to reduce the pollutant loads to those waters. In the event the permittee also has at least one stormwater discharge to surface waters within the Chesapeake Bay watershed, the PRP may be combined with the CBPRP described in Appendix D.

- Sediment
- Total Phosphorus (TP)
Nutrient-Sediment PRP Development Schedule

Model input deck set-up, loading/drainage areas (or MS3s) – 1/5
Request municipal info review and confirmation /changes – 1/9
Municipal input provided on model data, parsed areas – 1/24
Baseline loadings finalized – 2/9
Reduction approach determined – 2/24
Reduction BMP options presented – 3/17
Reduction BMPs selected – 4/7
Draft PRP generated and submitted for review & approval – 5/5
Draft PRP approved – 5/26
Public comment period mechanism finalized - 5/30
Issue public notice – 6/1
Public comment period begins (30-day comment period) – 6/6
Public comment period ends – 7/7
Public comments reviewed, addressed, and incorporated into PRP/CBPRP – 8/3
Preliminary final version submitted for review & approval – 8/4
Final approval – 9/1
Packaging – 9/8
PRPs submission (with NOI) – 9/13
## PADEP MS4 Requirements Table

<table>
<thead>
<tr>
<th>MS4 Name</th>
<th>NPDES ID</th>
<th>Individual Permit Required?</th>
<th>Reason</th>
<th>Impaired Downstream Waters or Applicable TMDL Name</th>
<th>Requirement(s)</th>
<th>Other Cause(s) of Impairment</th>
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This table outlines the MS4 requirements for various locations, including the reasons for impairment, the impaired waters, and the specific requirements and other causes of impairment.
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<tr>
<th>MS4 Name</th>
<th>NPDES ID</th>
<th>Individual Permit Required?</th>
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### 2014 Pennsylvania Integrated Water Quality Monitoring and Assessment Report - Streams, Category 5 Waterbodies, Pollutants Requiring a TMDL

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<th>Miles</th>
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### 2016 Pennsylvania Integrated Water Quality Monitoring and Assessment Report - Streams, Category 5 Waterbodies, Pollutants Requiring a TMDL

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## Stream Name

### Use Designation (Assessment ID)

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<th>Source</th>
<th>Cause</th>
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<th>TMDL Date</th>
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### Montour Run

HUC: 05030101

- Aquatic Life (11406) - 12.66 miles
  - Abandoned Mine Drainage
  - pH

- Metals
- 1996
- 2005
- 1998
- 2005

### Sawmill Run Unnamed To (ID: 134396054)

HUC: 05030101

- Aquatic Life (8743) - 2.43 miles
  - Combined Sewer Overflow
  - Urban Runoff/Storm Sewers

- Organic Enrichment/Low D.O.
- Siltation
- 2002
- 2008
- 2002
- 2007

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**Category 4a**
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Which PRP do I need?

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<th>MS4 Name</th>
<th>NPDES ID</th>
<th>Individual Permit Required?</th>
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<td>Appendix E-Organic Enrichment/Low D.O., Siltation (5)</td>
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![Map with selected area and data overlay](image-url)
Drainage Area

T-08 Drainage Area (1,950 acres approx.)
Planning Area Approach
Planning Area Approach
Planning Area Approach
Planning Area Approach (Aggregate the loading)
Planning Area Approach (Aggregated) – watershed-wide
Aggregated Approach – sub-watersheds within a municipality
A. Public Participation. The MS4 shall complete the following public participation measures listed below, and report in the PRP that each was completed.

- The applicant shall make a complete copy of the PRP available for public review.

- The applicant shall publish, in a newspaper of general circulation in the area, a public notice containing a statement describing the plan, where it may be reviewed by the public, and the length of time the permittee will provide for the receipt of comments. The public notice must be published at least 45 days prior to the deadline for submission of the PRP to DEP. Attach a copy of the public notice to the PRP.

- The applicant shall accept written comments for a minimum of 30 days from the date of public notice. Attach a copy of all written comments received from the public to the PRP.

- The applicant shall accept comments from any interested member of the public at a public meeting or hearing, which may include a regularly scheduled meeting of the governing body of the municipality or municipal authority that is the permittee.

- The applicant shall consider and make a record of the consideration of each timely comment received from the public during the public comment period concerning the plan, identifying any changes made to the plan in response to the comment. Attach a copy of the permittee's record of consideration of all timely comment received in the public comment period to the PRP.

For PRPs developed on a regional scale by multiple MS4 permittees or by co-permittees, the collaborating permittees may implement these public participation requirements as a joint effort as long as the notice of the availability of the PRP and the notice of a public meeting or hearing reaches the target audience groups of all permittees involved in the joint effort.
Section A – Public Participation

Public participation is an essential part of the PRP because it enhances buy-in from landowners that may have an impact on pollutant discharges, can uncover missing elements or errors in calculations, and builds cooperative partnerships among the municipality and other entities.

A copy of the draft PRP was released via public notice on MONTH, DAY, YEAR to the following media outlets: ____________. The notice ran for # days. A copy of the public notice is included as Item A-1.

The public was given 30 days to provide commentary on the contents of the PRP. A copy of all written public comments is included as Item A-2.

The MUNICIPALITY held a public meeting on MONTH, DAY, YEAR to receive verbal commentary on the contents of the PRP. A copy of the comments and the record of consideration is included as Item A-3.

The MUNICIPALITY used the public comments to update the draft PRP in the following ways:

__________________________
B. **Map.** Attach a map that identifies land uses and/or impervious/pervious surfaces and the storm sewershed boundary associated with each MS4 outfall that discharges to impaired surface waters, or surface waters draining to the Chesapeake Bay (see note below), and calculate the storm sewershed area that is subject to Appendix D and/or Appendix E. In addition, the map must identify the proposed location(s) of structural BMP(s) that will be implemented to achieve the required pollutant load reductions.

The map may be the same as that used to satisfy MCM #3 of the PAG-13 General Permit, with the addition of land use and/or impervious/pervious surfaces, the storm sewershed boundary, and locations of proposed BMPs, or may be a different map.

The map must be sufficiently detailed to identify the “planning area” relevant to satisfying the requirements of Appendix D and/or Appendix E, and to demonstrate that BMPs will be located in appropriate storm sewersheds to meet the requirements. For a single MS4, the study area constitutes the combined storm sewersheds of all MS4 outfalls within the permittee’s jurisdiction. For MS4s participating in a joint PRP, the study area constitutes the combined sewersheds of all MS4 outfalls within the jurisdictions of all MS4s in the joint effort.

**NOTE** – Delineation of storm sewersheds associated with individual MS4 outfalls is typically necessary in order to determine the combined storm sewershed (i.e., planning area, the drainage areas of all MS4 outfalls that discharge to a specific surface water or to waters within the Chesapeake Bay watershed). The MS4 may display the storm sewershed for each MS4 outfall or just the combined storm sewershed, at its discretion. In cases where there are no local surface water impairments but the entire municipality is located in the Chesapeake Bay watershed, the map can display the entire storm sewershed within the municipality, without distinction between discharges to various local surface waters. In addition, a municipality entirely within the Chesapeake Bay watershed with no local surface water impairments may elect to consider the entire municipality as part of the storm sewershed, and calculate existing loading from the entire municipality.
The map may show areas that are to be “parsed” from the planning area. In other words, at the MS4’s discretion (subject to DEP rules), certain areas may be shown on the map that are within the storm sewershed but are not included in the calculation of land area and existing pollutant loading. Guidance on parsing is contained in Attachment A. Note that if parsing is done, BMPs implemented within the parsed area will not count toward achieving pollutant reduction objectives.
Required PRP Elements: Section B

Section B – Map

A map that identifies land uses and/or impervious surfaces and the storm sewershed boundary associated with each MS4 outfall that discharges to [impaired surface waters/surface waters draining to the Chesapeake Bay] is included as Item B-1. The map also includes existing structural best management practices (BMPs) that are being used as credit to reduce the existing pollutant loads, as well as the proposed location(s) of structural BMPs that will be implemented to achieve the required pollutant load reductions during the current permit cycle.

By looking at the map, one can see that the storm sewershed area that is subject to [Appendix D/Appendix E] is # acres in size. Of the total acreage, ___ acres lie within the Urbanized Area (UA) of the MS4, based on the 2010 U.S. Census data. The total impervious cover within the UA total ___ acres or ___ percent, based on the [Chesapeake Bay Program’s 2010 impervious
Section B (Map Attachment)
Section B (Map Attachment)
Loading Area Considerations

• Can generate in a GIS platform, or hand-draw on a topographic map.

• Some water quality modeling programs (such as MapShed) are building a drainage area module into the program that delineates drainage areas for you.

• Other NPDES Permits (e.g., PennDOT MS4 Permit) should be parsed out (a.k.a. removed or delineated out from the MS3).

• A primary objective of mapping out loading areas is to determine the land area of the drainage area (e.g., acres).

• For a PRP, you want to spell out in the narrative your process (including how the land area was calculated).
Loading Area (delineated MS3) “mapped”

MS3-029 is 10.9 acres
MS3-029
• Gross area: 10.9 acres
• PennDOT parsed area: 0.7 acres
• Net area: 10.9-0.8 = 10.2 acres
Loading Area (delineated MS3) “land types”

MS3-029
- Total Area: 10.2 acres
- Impervious: 6.2 acres
- Pervious: 4.0 acres
C. **Pollutants of Concern.** Identify the pollutants of concern for each storm sewer watershed (see Section I.B of these instructions).

I. **General Information**

A. **Terms:** The term “nutrients” refers to “Total Nitrogen” (TN) and “Total Phosphorus” (TP) unless specifically stated otherwise in DEP’s latest Integrated Report. The terms “sediment,” “siltation,” and “suspended solids” all refer to inorganic solids and are hereinafter referred to as “sediment.”

B. **Pollutants of Concern and Required Reductions:** For all PRPs, MS4s shall calculate existing loading of the pollutant(s) of concern, in lbs/year; calculate the minimum reduction in loading, in lbs/year; select BMP(s) to reduce loading; and demonstrate that the selected BMP(s) will achieve the minimum reductions.

For Chesapeake Bay PRPs (Appendix D), the pollutants of concern are sediment, TN and TP and the minimum reductions in loading are 10%, 5% and 3%, respectively. Permittees are encouraged to select appropriate BMPs to achieve the 10% sediment loading reduction objective, as it expected that, overall within the Bay watershed, the TP (5%) and TN (3%) goals will be achieved when a 10% reduction in sediment is achieved.

For PRPs developed for impaired waters (Appendix E), the pollutant(s) are based on the impairment listing, as provided in the MS4 Requirements Table. If the impairment is based on siltation only, a minimum 10% sediment reduction is required. If the impairment is based on nutrients only or other surrogates for nutrients (e.g., “Excessive Algal Growth” and “Organic Enrichment/Low D.O.”), a minimum 5% TP reduction is required. If the impaired is due to both siltation and nutrients, both sediment (10% reduction) and TP (5% reduction) must be addressed.
Section C – Pollutants of Concern

[if this is a CBPRP, use the following:] For any and all MS4 communities with discharges to one or more waterways of the Chesapeake Bay, the following pollutants may be of concern: sediment, total nitrogen (TN), and total phosphorus (TP). The table below shows each of the affected storm sewersheds within the MUNICIPALITY, and the pollutant(s) that are of concern to that area. The MUNICIPALITY will select BMPs to reduce the sediment pollutant load by 10 percent, which is understood to then reduce the TN and TP by 5 percent and 3 percent respectively.

<table>
<thead>
<tr>
<th>Storm Sewershed</th>
<th>Pollutant(s) of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribs 64908 and 07579 to Swarr Run</td>
<td>Appendix D Nutrients, Siltation</td>
</tr>
<tr>
<td>Chickies Creek and Trib 07984 to Chickies Creek</td>
<td>Appendix D Nutrients, Siltation</td>
</tr>
<tr>
<td>Trib 07567 to West Branch Little Conestoga</td>
<td>Appendix D Nutrients, Siltation</td>
</tr>
</tbody>
</table>
Because the MUNICIPALITY discharges pollutants to a local impaired water, specifically WATERBODY NAME, it must reduce those pollutant loads. According to the impairment listing within the MS4 Requirements Table, the BOROUGH/TOWNSHIP must reduce SEDIMENT/TN/TP/PATHOGENS by X% [10 percent for siltation, 5 percent for nutrients, or 10 and 5 for both]. The table below shows each of the affected storm sewersheds within the MUNICIPALITY, and the pollutant(s) that are of concern to that area.

<table>
<thead>
<tr>
<th>Storm Sewershed</th>
<th>Pollutant(s) of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swarr Run and Unnamed Tributaries to Swarr Run</td>
<td>Crop related ag – nutrients and siltation; grazing related ag – siltation; Urban runoff/storm sewers – cause unknown</td>
</tr>
<tr>
<td>Millers Run</td>
<td>Crop related ag – nutrients and siltation; grazing related ag – siltation; urban runoff/storm sewers – cause unknown</td>
</tr>
<tr>
<td>Brubaker Run</td>
<td>Crop related ag – nutrients and siltation; grazing related ag – siltation; urban runoff/storm sewers – cause unknown</td>
</tr>
<tr>
<td>Little Conestoga Creek</td>
<td>Crop related ag – nutrients and siltation; grazing related ag – nutrients and siltation;</td>
</tr>
</tbody>
</table>
D. **Determine Existing Loading for Pollutants of Concern.** Identify the date associated with the existing loading estimate (see Section I.C of these instructions). Calculate the existing loading, in lbs per year, for the pollutant(s) of concern in all storm sewersheds.

There are several possible methods to estimate existing loading, ranging from simplistic to very complex. One simple method to estimate existing loading that is acceptable to DEP is to determine the percent impervious and pervious surface within the urbanized area of the storm sewershed and calculate existing loading by multiplying the developed impervious and developed pervious land areas (acres) by pollutant loading rates (lbs/acre/year). Outside of the urbanized area, the MS4 may use loading rates for undeveloped land. Where structural BMPs are currently in place and are functioning, the existing loading estimate may be adjusted to account for pollutant reductions from those BMPs.
Section D – Determine Existing Loading for Pollutants of Concern

[for CBPRP] The MUNICIPALITY has a total of ____ acres in its storm sewershed for surface waters draining to the Chesapeake Bay, ____ percent (____ acres) of which are impervious, ____ percent (____ acres) of which are pervious, and ____ percent (____ acres) of which are undeveloped. Because of this, the BOROUGH/TOWNSHIP must prepare a CBPRP and must follow Appendix D in the PAG-13 General Permit.

[for IWPRP] The MUNICIPALITY has a total of ____ acres in its storm sewershed for surface waters draining to the impaired waterbody (XYZ Creek), ____ percent (____ acres) of which are impervious, ____ percent (____ acres) of which are pervious, and ____ percent (____ acres) of which are undeveloped. Because of this, the BOROUGH/TOWNSHIP must prepare an impaired waters PRP and must follow Appendix E in the PAG-13 General Permit.

The existing loading estimates were calculated on MONTH, DAY, YEAR (date of NOI submission) using Attachment B of the PRP Instructions. The existing loading rates are as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Sediment Loading Rate (lbs/acre/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impervious developed</td>
<td>XXXX</td>
</tr>
<tr>
<td>Pervious developed</td>
<td>XXXX</td>
</tr>
<tr>
<td>Undeveloped</td>
<td>XXXX</td>
</tr>
<tr>
<td>TOTAL</td>
<td>XXXX</td>
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</tbody>
</table>
### Developed Land Loading Rates for PA Counties

<table>
<thead>
<tr>
<th>County</th>
<th>Category</th>
<th>Acres</th>
<th>TN lbs/acre/yr</th>
<th>TP lbs/acre/yr</th>
<th>TSS (Sediment) lbs/acre/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>impervious developed</td>
<td>10,373.2</td>
<td>33.43</td>
<td>2.1</td>
<td>1,398.77</td>
</tr>
<tr>
<td></td>
<td>pervious developed</td>
<td>44,028.6</td>
<td>22.99</td>
<td>0.8</td>
<td>207.67</td>
</tr>
<tr>
<td>Bedford</td>
<td>impervious developed</td>
<td>9,815.2</td>
<td>19.42</td>
<td>1.9</td>
<td>2,034.34</td>
</tr>
<tr>
<td></td>
<td>pervious developed</td>
<td>19,425</td>
<td>17.97</td>
<td>0.68</td>
<td>301.22</td>
</tr>
<tr>
<td>Berks</td>
<td>impervious developed</td>
<td>1,292.4</td>
<td>36.81</td>
<td>2.26</td>
<td>1,925.79</td>
</tr>
<tr>
<td></td>
<td>pervious developed</td>
<td>5,178.8</td>
<td>34.02</td>
<td>0.98</td>
<td>264.29</td>
</tr>
<tr>
<td>Blair</td>
<td>impervious developed</td>
<td>3,587.9</td>
<td>20.88</td>
<td>1.73</td>
<td>1,813.55</td>
</tr>
<tr>
<td></td>
<td>pervious developed</td>
<td>9,177.5</td>
<td>18.9</td>
<td>0.62</td>
<td>267.34</td>
</tr>
<tr>
<td>Bradford</td>
<td>impervious developed</td>
<td>10,423</td>
<td>14.82</td>
<td>2.37</td>
<td>1,880.87</td>
</tr>
<tr>
<td></td>
<td>pervious developed</td>
<td>23,709.7</td>
<td>13.05</td>
<td>0.85</td>
<td>272.25</td>
</tr>
<tr>
<td>Cambria</td>
<td>impervious developed</td>
<td>3,237.9</td>
<td>20.91</td>
<td>2.9</td>
<td>2,155.29</td>
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<tr>
<td></td>
<td>pervious developed</td>
<td>8,455.4</td>
<td>19.86</td>
<td>1.12</td>
<td>325.3</td>
</tr>
<tr>
<td>Cameron</td>
<td>impervious developed</td>
<td>1,743.2</td>
<td>18.46</td>
<td>2.98</td>
<td>2,574.49</td>
</tr>
<tr>
<td></td>
<td>pervious developed</td>
<td>1,334.5</td>
<td>19.41</td>
<td>1.21</td>
<td>379.36</td>
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<tr>
<td>Carbon</td>
<td>impervious developed</td>
<td>25.1</td>
<td>28.61</td>
<td>3.97</td>
<td>2,177.04</td>
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<tr>
<td>Lancaster</td>
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<td>38.53</td>
<td>1.55</td>
<td>1,480.43</td>
</tr>
<tr>
<td></td>
<td>pervious developed</td>
<td>21,649.7</td>
<td>22.24</td>
<td>0.36</td>
<td>190.93</td>
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<td>25.1</td>
<td>28.61</td>
<td>3.97</td>
<td>2,177.04</td>
</tr>
<tr>
<td></td>
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<td>51.0</td>
<td>20.91</td>
<td>2.04</td>
<td>229.35</td>
</tr>
<tr>
<td><strong>All Other Counties</strong></td>
<td>impervious developed</td>
<td>-</td>
<td>23.06</td>
<td>2.28</td>
<td>1,839</td>
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<tr>
<td></td>
<td>pervious developed</td>
<td>-</td>
<td>20.72</td>
<td>0.84</td>
<td>264.96</td>
</tr>
<tr>
<td>Lancaster</td>
<td>impervious developed</td>
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<td>38.53</td>
<td>1.55</td>
<td>1,480.43</td>
</tr>
<tr>
<td></td>
<td>pervious developed</td>
<td>21,649.7</td>
<td>22.24</td>
<td>0.36</td>
<td>190.93</td>
</tr>
</tbody>
</table>
Estimating the sediment load in the MS3

TSS loading from PADEP Att. B:
• Impervious dev.: 1,480.43 lbs/ac/yr
• Pervious dev.: 190.93 lbs/ac/yr

MS3-029
• Total Area: 10.2 acres
• Impervious: 6.2 acres
• Pervious: 4.0 acres

Loading calculations:
• Impervious:
  \[1,480.43 \text{ lbs/yr} \times 6.2 \text{ acres} = 9,178.67 \text{ lbs/yr}\]
• Pervious:
  \[190.93 \text{ lbs/yr} \times 4.0 \text{ acres} = 763.72 \text{ lbs/yr}\]
• Total sediment loading: 
  \[9,178.67 \text{ lbs/yr} + 763.72 \text{ lbs/yr} = 9,942.39 \text{ lbs/yr}\]
Planning Area Approach (Aggregate the loading)
### Aggregated Area loading (SM):

<table>
<thead>
<tr>
<th></th>
<th>Mapshed</th>
<th>Simplified</th>
<th>Hybrid</th>
<th>Mapshed Stream</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA1</td>
<td>222,568</td>
<td>159,240.91</td>
<td>157,418</td>
<td>201,622</td>
</tr>
<tr>
<td>UA2</td>
<td>179,151</td>
<td>112,721.28</td>
<td>159,937</td>
<td>166,862</td>
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<td>UA3</td>
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<td>860,515.76</td>
<td>966,068</td>
<td>1,169,632</td>
</tr>
<tr>
<td>UA3B</td>
<td>1,234,652</td>
<td>144,342.89</td>
<td>146,832</td>
<td>1,169,632</td>
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<tr>
<td>UA4</td>
<td>198,319</td>
<td>108,105.71</td>
<td>115,417</td>
<td>148,757</td>
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<td>UA5</td>
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<td>2,364,350.98</td>
<td>2,349,488</td>
<td>3,020,864</td>
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<tr>
<td>UA6</td>
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<td>401,021</td>
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<tr>
<td>UA7</td>
<td>612,286</td>
<td>317,627.24</td>
<td>60,567</td>
<td>250,434</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,897,977</strong></td>
<td><strong>4,141,658</strong></td>
<td><strong>4,144,442</strong></td>
<td><strong>6,278,389</strong></td>
</tr>
</tbody>
</table>

Aggregated Area loading (SM): ~4.033 million pounds of sediment

...need ~403,000 pound sediment reduction
Approximate 403,000 pound of sediment reduction required in aggregated area

Project provides approximately 168,000 pound reduction (~42%) to the township’s overall reduction requirements
MS4s may claim “credit” for structural BMPs implemented prior to development of the PRP to reduce existing loading estimates. In order to claim credit, identify all such structural BMPs in Section D of the PRP along with the following information:

- A detailed description of the BMP;
- Latitude and longitude coordinates for the BMP;
- Location of the BMP on the storm sewershed map;
- The permit number, if any, that authorized installation of the BMP;
- Calculations demonstrating the pollutant reductions achieved by the BMP;
- The date the BMP was installed and a statement that the BMP continues to serve the function(s) it was designed for; and
- The operation and maintenance (O&M) activities and O&M frequencies associated with the BMP.

The MS4 permittee may optionally submit design drawings of the BMP for previously installed or future BMPs with the PRP.

Legacy BMP’s should be a focus here.
Existing Structural BMPs

[where relevant, optional] The MUNICIPALITY is claiming credit for the following structural BMPs implemented prior to development of this PRP (installed between YEAR 1 and YEAR X) to reduce existing load estimates.

<table>
<thead>
<tr>
<th>BMP 1</th>
<th>Bioretention basin, 1 acre in size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>40.1573° N, 76.3069° W</td>
</tr>
<tr>
<td>Permit number</td>
<td>G-105568</td>
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<tr>
<td>#1 on storm sewershed map</td>
<td></td>
</tr>
<tr>
<td>O&amp;M activities</td>
<td>Installed on 3/20/14. Basin still functions at target capacity due to regular O&amp;M activities, described below. O&amp;M activities include: basin inspection once per month, cleaning of inlet as needed, mowing and weed removal at least once per month, replacement of dead or diseased plants twice per year, replacement of mulch once per year.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BMP 2</th>
<th>Stream restoration, 5,000 linear feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>40.1634° N, 76.3950° W</td>
</tr>
<tr>
<td>Permit number</td>
<td></td>
</tr>
</tbody>
</table>
### Existing Stormwater BMP Documentation

<table>
<thead>
<tr>
<th>BMP Type / date installed</th>
<th>Location (be as specific as possible)</th>
<th>Watershed</th>
<th>Length (ft) (if applicable)</th>
<th>BMP Area (ac)</th>
<th>BMP Depth (ft) - BMP/treated Volume (cf)</th>
<th>Drainage Area Treated (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>if unknown leave blank</th>
<th>Land Cover Type Treated by BMP * (if unknown leave blank)</th>
<th>LSI will calculate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impervious Area Treated (ac)</td>
<td>LD Residential (ac)</td>
<td>MD Residential (ac)</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Required PRP Elements: Section D
<table>
<thead>
<tr>
<th>Project #</th>
<th>Site</th>
<th>BMP</th>
<th>RR or ST</th>
<th>Runoff Storage (RS) (ac ft)</th>
<th>Impervious Area (IA) (ac)</th>
<th>(RS)/(12)/IA (Min=0, Max=2.5)</th>
<th>Pervious Area (ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>918</td>
<td>Rain Garden NW Side Stiegle</td>
<td>RG</td>
<td>RR</td>
<td>0.030</td>
<td>0.43</td>
<td>0.84</td>
<td>0.07</td>
</tr>
<tr>
<td>919</td>
<td>Rain Garden SE Side Stiegle</td>
<td>RG</td>
<td>RR</td>
<td>0.005</td>
<td>0.59</td>
<td>0.09</td>
<td>0.06</td>
</tr>
<tr>
<td>746</td>
<td>Basin retrofit at West End Ave</td>
<td>BR</td>
<td>RR</td>
<td>0.830</td>
<td>29.27</td>
<td>0.34</td>
<td>12.55</td>
</tr>
<tr>
<td>749&amp;750</td>
<td>Bioswale at Fuller Drive</td>
<td>BSW</td>
<td>RR</td>
<td>0.175</td>
<td>15.57</td>
<td>0.13</td>
<td>1.73</td>
</tr>
<tr>
<td>478</td>
<td>Bioswale in Manheim</td>
<td>BSW</td>
<td>RR</td>
<td>0.055</td>
<td>3.12</td>
<td>0.21</td>
<td>2.55</td>
</tr>
<tr>
<td>1006</td>
<td>Basin retrofit at Laurel Rd in Manheim</td>
<td>BR</td>
<td>RR</td>
<td>0.290</td>
<td>15.00</td>
<td>0.23</td>
<td>45.00</td>
</tr>
<tr>
<td>874</td>
<td>Dry Basin in Rapho</td>
<td>BR</td>
<td>RR</td>
<td>0.265</td>
<td>7.73</td>
<td>0.41</td>
<td>35.23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>918</td>
<td>57%</td>
<td>66%</td>
<td>71%</td>
<td>18.12</td>
<td>0.69</td>
<td>649.95</td>
<td>10.25</td>
<td>0.46</td>
<td>460.69</td>
<td>0.23</td>
</tr>
<tr>
<td>919</td>
<td>12%</td>
<td>14%</td>
<td>15%</td>
<td>23.99</td>
<td>0.93</td>
<td>878.46</td>
<td>2.77</td>
<td>0.13</td>
<td>129.38</td>
<td>0.06</td>
</tr>
<tr>
<td>746</td>
<td>35%</td>
<td>41%</td>
<td>44%</td>
<td>1,406.89</td>
<td>49.89</td>
<td>45,728.36</td>
<td>494.52</td>
<td>20.43</td>
<td>20066.91</td>
<td>10.03</td>
</tr>
<tr>
<td>749&amp;750</td>
<td>16%</td>
<td>19%</td>
<td>21%</td>
<td>638.39</td>
<td>24.76</td>
<td>23,380.60</td>
<td>104.49</td>
<td>4.77</td>
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<td>5.75</td>
<td>5,105.81</td>
<td>43.13</td>
<td>1.64</td>
<td>1558.13</td>
<td>0.78</td>
</tr>
<tr>
<td>1006</td>
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<td>31%</td>
<td>33%</td>
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<td>39.45</td>
<td>30,798.30</td>
<td>415.25</td>
<td>12.11</td>
<td>10131.03</td>
<td>5.07</td>
</tr>
<tr>
<td>874</td>
<td>40%</td>
<td>46%</td>
<td>50%</td>
<td>1,081.35</td>
<td>24.66</td>
<td>18,170.19</td>
<td>431.40</td>
<td>11.47</td>
<td>9050.67</td>
<td>4.53</td>
</tr>
<tr>
<td></td>
<td>MapShed</td>
<td>Simplified</td>
<td>Alt. Simplified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Baseline Load</td>
<td>3,099,641</td>
<td>781,344</td>
<td>781,344</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10% Reduction</td>
<td>309,964</td>
<td>78,134</td>
<td>78,134</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Memorial Park Reduction (2800 lf)</td>
<td>1,013,400.00</td>
<td>125,664.00</td>
<td>694,400.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length Required to Achieve 10%</td>
<td></td>
<td>200</td>
<td>1,744</td>
<td>315</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of 2800' reach</td>
<td></td>
<td>7%</td>
<td>62%</td>
<td>11%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mapshed results vary with different iterations
E. Select BMPs To Achieve the Minimum Required Reductions in Pollutant Loading. Identify the minimum required reductions in pollutant loading (see Section I.B of these instructions). Applicants must propose the implementation of BMP(s) or land use changes within the storm sewershed that will result in meeting the minimum required reductions in pollutant loading within the storm sewershed(s) identified by the MS4. These BMP(s) must be implemented within 5 years of DEP’s approval of coverage under the PAG-13 General Permit, and must be located within the storm sewersheds of the applicable impaired waters, on either public or private property. If the applicant is aware of BMPs that will be implemented by others (either in cooperation with the applicant or otherwise) within the storm sewershed that will result in net pollutant loading reductions (i.e., typically not E&S BMPs to satisfy DEP’s Chapter 102 requirements), the applicant may propose those BMPs within its PRP.

Historic street sweeping practices should not be considered in calculating credit for future practices. All proposed street sweeping practices may be used for credit if the minimum standard is met for credit (see 3800-PM-BCWO100m). In other words, if sweeping was conducted 1/month and will be increased to 25/year in the future, the MS4 does not need to use the “net reduction” resulting from the increased sweeping; it may take credit for the full amount of reductions from 25/year sweeping.

The names and descriptions of BMPs and land uses reported in the PRP should be in accordance with the Chesapeake Bay Program Model. The names and descriptions are available through CAST (log into www.casttool.org, select “Documentation,” select “Source Data” and see worksheets named “Land Use Definitions” and “BMP Definitions”).
The MUNICIPALITY proposes the implementation of the following BMPs and land use changes within the storm sewershed to meet this pollutant load reduction. These BMPs will be implemented by MONTH, DAY, YEAR, which is five years from the Permit date.

<table>
<thead>
<tr>
<th>BMP/Land Use Name</th>
<th>BMP/ Land Use Description</th>
<th>% Pollutant Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Streamside Forest Buffer</td>
<td>The MUNICIPALITY plans to work with a local watershed group to restore 1,000 linear feet of stream bank along ABC Creek. The sediment BMP effectiveness value is 44.88 lbs/ft.</td>
<td>1,000 ft x 44.88 lbs/ft = 44,880 lbs/yr</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2  Bioswale</td>
<td>The BOROUGH/TOWNSHIP park, located next to ABC Creek, receives drainage from 5 acres of pervious developed land and 2 acres of impervious developed land. Stormwater currently flows through a 24-inch pipe but 100 feet of the pipe would be replaced by a bioswale for this project. The sediment BMP effectiveness value for a bioswale is 80 percent.</td>
<td>Impervious = 2 acres x _____ lbs/acre/yr x 0.80 (80%) = _____ lbs/yr</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pervious = 5 acres x _____ lbs/acre/yr x 0.80 = _____ lbs/yr</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total = _____</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3  Permeable Pavement</td>
<td>Permeable pavement has a high BMP effectiveness value and results in relatively high</td>
<td>3 acres x _____ lbs/acre/yr x 0.85</td>
</tr>
</tbody>
</table>
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
STORMWATER DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS
BMP EFFECTIVENESS VALUES

This table of BMP effectiveness values (i.e., pollutant removal efficiencies) is intended for use by MS4s that are developing and implementing Pollutant Reduction Plans and TMDL Plans to comply with NPDES permit requirements. The values used in this table generally consider pollutant reductions from both overland flow and reduced downstream erosion, and are based primarily on average values within the Chesapeake Assessment Scenario Tool (CAST) (www.casttool.org). Design considerations, operation and maintenance, and construction sequences should be as outlined in the Pennsylvania Stormwater BMP Manual, Chesapeake Bay Program guidance, or other technical sources. The Department of Environmental Protection (DEP) will update the information contained in this table as new information becomes available. Interested parties may submit information to DEP for consideration in updating this table to DEP’s MS4 resource account, RA-EPPAMS4@pa.gov. Where an MS4 proposes a BMP not identified in this document or in Chesapeake Bay Program expert panel reports, other technical resources may be consulted for BMP effectiveness values. Note – TN = Total Nitrogen and TP = Total Phosphorus.

<table>
<thead>
<tr>
<th>BMP Name</th>
<th>BMP Effectiveness Values</th>
<th>BMP Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TN</td>
<td>TP</td>
</tr>
<tr>
<td>Wet Ponds and Wetlands</td>
<td>20%</td>
<td>45%</td>
</tr>
<tr>
<td>Dry Detention Ponds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


BMP Effectiveness

Estimating the sediment load in the MS3

TSS loading from PADEP Att. B:
• Impervious dev.: 1,480.43 lbs/ac/yr
• Pervious dev.: 190.93 lbs/ac/yr

MS3-029
• Total Area: 10.2 acres
• Impervious: 6.2 acres
• Pervious: 4.0 acres

Loading calculations:
• Impervious:
  1,480.43 lbs/ac/yr x 6.2 acres = 9,178.67 lbs/yr
• Pervious:
  190.93 lbs/ac/yr x 4.0 acres = 763.72 lbs/yr
• Total sediment loading: 9,178.67 lbs/yr + 763.72 lbs/yr = 9,942.39 lbs/yr

Wetlands BMP
10.2 acres x 974.7 lbs/ac/yr x 60% = 5,965 lbs/yr
<table>
<thead>
<tr>
<th>Project #</th>
<th>Site</th>
<th>BMP</th>
<th>RR or ST</th>
<th>Runoff Storage (RS) (ac ft)</th>
<th>Impervious Area (IA) (ac)</th>
<th>(RS) (12)/IA (Min=0, Max=2.5)</th>
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<td>29.27</td>
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<td>12.55</td>
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<tr>
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<td>Bioswale at Fuller Drive</td>
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<td>RR</td>
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<tr>
<td>478</td>
<td>Bioswale in Manheim</td>
<td>BSW</td>
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<tr>
<td>874</td>
<td>Dry Basin in Rapho</td>
<td>BR</td>
<td>RR</td>
<td>0.265</td>
<td>7.73</td>
<td>0.41</td>
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</tr>
</tbody>
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<tr>
<th></th>
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<th></th>
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<td>39.45</td>
<td>30,798.30</td>
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<td>431.40</td>
<td>11.47</td>
<td>9050.67</td>
<td>4.53</td>
</tr>
</tbody>
</table>
Facility/BMP selection

- Basin retrofits
- Infiltration basins/trenches
- Filter strips
- Rain gardens
- Bioswales
- Permeable pavement
- Vegetated channels
- Street sweeping
- Hydrodynamic structures
- Flow-through facilities (filter strip/vegetated channel hybrid)
- Stream/floodplain restoration
- ...and so on
NOTE – In calculating future pollutant loading the applicant must be cognizant of planned changes to land uses or BMPs. For example, if a tract of land (< 1 acre) currently in pasture will be converted within the next few years to residential land use, and there are no ordinances in place to control the rate, volume or quality of stormwater draining from the tract, the potential net increase in pollutant loading must be factored into the future loading estimate; this means that BMPs must be implemented on the tract or elsewhere within the storm sewershed to compensate for this change.
F. Identify Funding Mechanism(s). Prior to approving coverage DEP will evaluate the feasibility of implementation of an applicant’s PRP. Part of this analysis includes a review of the applicant’s proposed method(s) by which BMPs will be funded. Applicants must identify all project sponsors and partners and probable funding sources for each BMP. DEP does not expect that guaranteed sources are identified in the PRP, but does expect that applicants propose their preferred funding options with alternatives in the event the preferred options do not materialize.

If you use the simplified approach for calculating loadings...follow the $47/lb (average) for each pound of sediment that needs reduced as the guidance for amount of funding needed to implement BMPs.
## Required PRP Elements: Section F

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>XYZ Watershed Group matching grant, Chesapeake Bay Foundation volunteers, donated plant material from Joe Smith Nursery, DCNR TreeVitalize grant for trees</td>
</tr>
<tr>
<td>2</td>
<td>DCNR parks grant for planning and installation, PennVEST grant for matching funds</td>
</tr>
<tr>
<td>3</td>
<td>BOROUGH/TOWNSHIP tipping fees, corporate sponsorships, donation of materials from ABC Quarry</td>
</tr>
<tr>
<td>4</td>
<td>PennDOT regional office funds, BOROUGH/TOWNSHIP budget funds</td>
</tr>
<tr>
<td>5</td>
<td>BOROUGH/TOWNSHIP budget funds, local business tax</td>
</tr>
</tbody>
</table>
Required PRP Elements: Section G

G. Identify Responsible Parties for Operation and Maintenance (O&M) of BMPs. Once implemented the BMPs must be maintained in order to continue producing the expected pollutant reductions. Applicants must identify the following for each selected BMP:

- The party(ies) responsible for ongoing O&M;
- The activities involved with O&M for each BMP; and
- The frequency at which O&M activities will occur.

MS4 permittees will need to identify actual O&M activities in Annual MS4 Status Reports submitted under the General Permit.

Should include a discussion of the life cycle of a BMP to be implemented in this section...and how the end of life cycle will be handled.
Section G – Identify Responsible Parties for Operation and Maintenance (O&M) of BMPs

All stormwater BMPs installed under this PRP are subject to the BOROUGH/TOWNSHIP stormwater management ordinance. The ordinance requires that the BMPs are inspected, at a minimum, [annually for the first five years, once every three years thereafter, and during or immediately after a 10-year or greater storm].

The Operation and Maintenance (O&M) activities for each BMP are included in the table below. If the BMP is located on private land, the landowner must convey an easement to the BOROUGH/TOWNSHIP to allow for access for periodic inspections and maintenance, as needed. Actual O&M activities will be listed in the Annual MS4 Status Report sent to the PADEP under the General Permit.

<table>
<thead>
<tr>
<th>BMP #</th>
<th>Parties Responsible for O&amp;M</th>
<th>O&amp;M Activities</th>
<th>Frequency for O&amp;M Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BOROUGH/TOWNSHIP Public Works Director, maintenance staff</td>
<td>Inspection, mowing and weeding, plant replacement,</td>
<td>Monthly for inspection and mowing; at least twice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>rip-rap maintenance</td>
<td>annually for plant replacement and rip-rap work</td>
</tr>
<tr>
<td>2</td>
<td>BOROUGH/TOWNSHIP Director of Parks and Recreation, park</td>
<td>Inspection, mowing and weeding, plant replacement,</td>
<td>Monthly for inspection, mowing, and inlet</td>
</tr>
<tr>
<td></td>
<td>maintenance staff, volunteers</td>
<td>mulch replacement, inlet cleaning</td>
<td>cleaning; at least twice annually for plant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>replacement;</td>
</tr>
</tbody>
</table>
Recommended PRP Attachments

- Copy of public notice, meeting minutes, etc. associated with the public comment and response period (if a high number of public comments are received, would attach in lieu of inserting into the first section of the PRP).
- Map(s)
- Implementation Schedule
- Calculations for loadings and reductions
- Calculations for BMPs
- BMP Inventory (spreadsheet)
  - Type, location, O&M references, performance notes, etc.
Table 6. Sediment Waste Load Allocations for MS4 Designated Areas within Lititz Run

<table>
<thead>
<tr>
<th>Pollutant Source</th>
<th>Acres</th>
<th>Unit Area Loading Rate (lbs/ac/yr)</th>
<th>Pollutant Loading (lbs/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Current</td>
<td>Allowable</td>
</tr>
<tr>
<td>Hay/Pasture</td>
<td>814.00</td>
<td>76.66</td>
<td>59.19</td>
</tr>
<tr>
<td>Cropland</td>
<td>2,758.00</td>
<td>1,267.93</td>
<td>533.18</td>
</tr>
<tr>
<td>Developed</td>
<td>2,010.00</td>
<td>89.12</td>
<td>449.51</td>
</tr>
</tbody>
</table>

From Table 6:

WLA (sediment) = 351,495 lbs/yr (sewer discharge) + 2,422,202.20 lbs/yr (MS4)
WLA (sediment) = 2,773,697.20 lbs/yr
<table>
<thead>
<tr>
<th>Municipality</th>
<th>Existing Load (tons/yr)</th>
<th>Allocated Load (tons/yr)</th>
<th>Percent Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baldwin Borough</td>
<td>1.1</td>
<td>0.3</td>
<td>72.1%</td>
</tr>
<tr>
<td>Baldwin Township</td>
<td>62.5</td>
<td>17.3</td>
<td>72.4%</td>
</tr>
<tr>
<td>Bethel Park Borough</td>
<td>119.0</td>
<td>32.6</td>
<td>72.6%</td>
</tr>
<tr>
<td>Brentwood Borough</td>
<td>73.7</td>
<td>20.3</td>
<td>72.5%</td>
</tr>
<tr>
<td>Castle Shannon Borough</td>
<td>191.8</td>
<td>51.9</td>
<td>73.0%</td>
</tr>
<tr>
<td>Crafton Borough</td>
<td>0.3</td>
<td>0.1</td>
<td>72.7%</td>
</tr>
<tr>
<td>Dormont Borough</td>
<td>92.2</td>
<td>24.5</td>
<td>73.4%</td>
</tr>
<tr>
<td>Green Tree Borough</td>
<td>55.4</td>
<td>14.8</td>
<td>73.2%</td>
</tr>
<tr>
<td>Ingram Borough</td>
<td>0.3</td>
<td>0.1</td>
<td>72.7%</td>
</tr>
<tr>
<td>Mt. Lebanon Township</td>
<td>297.8</td>
<td>84.1</td>
<td>71.8%</td>
</tr>
<tr>
<td>Mt. Oliver Borough</td>
<td>5.6</td>
<td>1.5</td>
<td>72.7%</td>
</tr>
<tr>
<td>Pittsburgh City</td>
<td>1,299.6</td>
<td>357.8</td>
<td>72.5%</td>
</tr>
<tr>
<td>Scott Township</td>
<td>7.7</td>
<td>2.1</td>
<td>72.6%</td>
</tr>
<tr>
<td>Whitehall Borough</td>
<td>220.6</td>
<td>61.4</td>
<td>72.2%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,427.6</td>
<td>668.9</td>
<td>72.4%</td>
</tr>
</tbody>
</table>
Combining TMDL Plans and PRPs: MS4s with multiple TMDL Plan development obligations may develop one TMDL Plan for submission to DEP, if desired. If this is done, MS4s may elect to address each TMDL water separately or in combination. If done in combination, the MS4 has flexibility when locating BMPs between the TMDL Planning Areas. If the MS4 elects to meet the percent reduction requirements (10% sediment or 5% TP) in lieu of meeting the WLA(s) within the first permit term, it may elect to reduce pollutants by a greater percentage in one TMDL Planning Area over another, as long as the overall reduction for the planning effort achieves the percent reduction requirements.
General Guidelines for MS4 Collaborative Efforts

• Written agreement (Intergovernmental Cooperation Agreement)
• Scope of agreement
  • Complete PRP implementation or individual BMP implementation
• Roles and responsibilities
  • Project selection process, contracting and/or consultant selection processes, long-term O&M, adaptive management, etc.
• Allocations of cost and pollutant reductions
  • Methodologies described
• Schedule (timeline(s) for implementation)
• Other ICL agreement requirements

As long as BMPs are implemented in MS4 planning area(s) and address the pollutant(s) of concern, the pollutant reductions afforded by the BMPs may be shared between collaborating MS4s.
Joint Watershed Approach
Joint Approach Considerations

- Do not need to have a joint permit*
- Contiguous municipalities is not an absolute requirement...watershed relationship plays a role
- Share of costs breakdown that has been gaining steam is:
  - Share is based on the percent of the loading and reduction requirement of an individual municipality as an overall share of the loadings and reductions of all the joint partners.

*May be appropriate to consider for a joint individual permit
Say you have a $200,000 project in a HUC-10 watershed that provides a reduction of 30,000 pounds of sediment, and three municipalities will jointly plan and implement the joint project. The following table shows how they are assigning “credits,” and it is directly proportional to the amount of money thrown into the pot by an individual municipality:

<table>
<thead>
<tr>
<th></th>
<th>Cost Contribution</th>
<th>Sediment Reduction “Credits”</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>$200,000</td>
<td>30,000 lbs/yr</td>
</tr>
<tr>
<td>Municipality A</td>
<td>$100,000 (50% of total)</td>
<td>15,000 lbs (50% of total)</td>
</tr>
<tr>
<td>Municipality B</td>
<td>$40,000 (20%)</td>
<td>6,000 lbs (20%)</td>
</tr>
<tr>
<td>Municipality C</td>
<td>$60,000 (30%)</td>
<td>9,000 lbs (30%)</td>
</tr>
</tbody>
</table>
Offsets. An MS4 may propose stormwater pollutant reduction BMPs outside of the TMDL and/or PRP Planning Area for possible approval as offsets toward meeting TMDL and/or PRP load reduction requirements. Such projects must be located within the jurisdiction of the developer of the TMDL Plan and/or PRP, and treat or manage stormwater that would drain to the impaired waters of interest under a TMDL Plan or PRP. In all cases where offsets are proposed, an individual permit is required.
SWMPs Simplified Summary

• The MS4 Permit is an Authorization to Discharge (ATD) based on the requirements of the CWA (uses, WQ criteria, anti-degradation policy).

• Develop the SWMP framework before addressing MCMs…identify what the system is discharging.

• The elements of the SWMP (including MCMs) are based on the SWMP framework and pollutants of concern.

• Document, document, document.

Final Thoughts and Questions?

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717-627-4440