pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PAI130064**
Facility Type	**MS4**	APS ID	**952573**
Permit Type	**Individual**	Authorization ID	**1202344**

NPDES PERMIT FACT SHEET
MS4s

Applicant and Facility Information

Applicant Name	**Warminster Township Bucks County**	Facility Name	**Warminster Township MS4 UA**
Applicant Address	401 Gibson Avenue	Facility Address	401 Gibson Avenue
	Warminster, PA 18974		Warminster, PA 18974-4163
Applicant Contact	George Daulton	Facility Contact	
Applicant Phone	(215) 675-3301 ext. 218	Facility Phone	
Client ID	128141	Site ID	614612
SIC Code	9199	Municipality	Warminster Township
SIC Description	Public Admin. - Genral Government, Nec	County	Bucks
Date Application Received	September 15, 2017		
Date Application Accepted			
Purpose of Application	Formerly PAG130049.		

Internal Review and Recommendations

Warminster Township has requested an approval of Individual NPDES MS4 permit for the discharge of stormwater from their MS4 System to waters of Commonwealth:

TMDL/ Impaired Stream:

1. Little Neshaminy Creek - impaired for Nutrients with TMDL sediment
2. Neshaminy Creek – impaired for Nutrients
3. Unnamed Tributaries to Pennypack Creek - impaired for Nutrients and sediments
4. Pennypack Creek - impaired for Nutrients and sediments
5. Southampton Creek - - impaired for Nutrients and Phosphorous

PRP

Initial PRP was submitted with application have been found not acceptable and letter of deficiencies was sent on November 26, 2018. On December 28, 2021 DEP has received a revised MS4 PRP/TMDL plan.

Watersheds:

Warminster TWP determined its PRP and TMDL planning areas within each of the three watersheds: Neshaminy /Little Neshaminy Creek, Pennypack Creek, and Southampton Creek.

Parsing:

The Authority/Township MS4 PRP Map shows parsed areas, which are areas within the storm sewershed that are not included in the calculation of land area and existing pollutant loading. All BMPs

Approve	Deny	Signatures	Date
X		*Begay Omuralieva* Begay Omuralieva / Environmental Engineering Specialist	January 4, 2022
X		*Elizabeth Mahoney* Elizabeth Mahoney/Environmental Group Manager	01/05/2022

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located within these parsed areas have not been counted toward achieving pollutant reduction objectives.

Planning Areas:

Area Description	Little Neshaminy Creek (Acres)	Pennypack Creek (Acres)	Southampton Creek (Acres)	Total Area (Acres)
Total Area	3,689.52	1,610.65	1,463.28	**6,763.45**
Parsed Areas	577.99	74.725	60.679	**713.40**
MS4 Areas	**3,111.53**	**1,535.93**	**1,402.6**	**6,050.06**

Existing BMPs:

Warminster TWP did not take credit for any existing BMPs.

Load Calculation Method:

1. Warminster used simplified Method to calculate the baseline pollutant loads.
2. To determine the impervious and pervious surfaces, GIS land cover layers were used, following strategies were used:
   a. *For the Little Neshaminy Creek, baseline sediment loads were calculated using the information provided in the Total Maximum Daily Load (TMDL) Assessment for the Neshaminy Creek Watershed in Southeast Pennsylvania, approved by the United States Environmental Protection Agency (USEPA) on December 8, 2003. The presumptive approach was used to calculate the existing TP loads for the Little Neshaminy Creek sewershed.*
   b. *For the Southampton Creek, baseline sediment and TP loads were calculated using the information provided in the Nutrient and Sediment TMDLs for the Southampton Creek Watershed, Pennsylvania, established by the USEPA for the Southampton Creek on June 30, 2008. Since land use related load rates were provided in Table 12 "Existing Sediment Load for Southampton Creek Watershed" in the Southampton Creek TMDL, calculating the existing sediment loads entailed assigning land use categories from the same table to the TMDL Planning Area. The existing load rates were then multiplied by the Planning Areas associated with each land use category.*
   c. *For the Pennypack Creek, since no TMDL or WLA exists but portions of the stream are impaired for sediment and nutrients, the PRP requirements apply to this sewershed; this is therefore considered a PRP Planning Area. As permitted per the PRP Instructions, the "simplified method" was used to calculate the baseline pollutant loads. To determine the impervious and pervious surfaces, GIS land cover layers were used.*

Based on above following table was provided:

TABLE E-2: SUMMARY OF SEDIMENT LOADING REDUCTIONS

Watershed	Total Sediment Loading (lbs/year)	Reduction Required	Reduced Sediment Loading (lbs/year)
Little Neshaminy Creek	512,741.05	85,619.32	427,121.73
Pennypack Creek	1,438,900.4	143,890.04	1,295,010.36
Southampton Creek	404,673.13	46,767.94	357,905.19
Total	**2,356,314.58**	**276,277.30**	**2,080,037.28**

TMDL Wasteload Allocations (WLAs):

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Warminster Municipal Authority's service area contains two watersheds with TMDLs with specific (WLAs) – the Little Neshaminy Creek and the Southampton Creek.

1. *The Total Maximum Daily Load (TMDL) Assessment for the Neshaminy Creek Watershed in Southeast Pennsylvania requires a 17% reduction in sediment loads in the Little Neshaminy Creek sub-watershed, per Table C2.5 "Sediment Load Allocation by Each Land Use/Source which is 427,121.73 lbs/year. And for Southampton Creek 357,905.19 lbs/year.*

2. *Southampton Creek TMDL Plan established an allocated TP wasteload of 23,281.81 lbs/year.*

Analysis of TMDL Objectives:

In the short-term, which is defined as this 5-year permit term TWP has decided to pursue reducing the existing sediment load by 10 percent for Pennypack, for the TMDL watersheds, the WLAs reduction percentages were used (17 percent for Little Neshaminy Creek and Southampton Creek varies depending on the wasteload calculations)

Below table summarizes the existing pollutant load ad short term TMDL reductions for each planned area:

Planning Area	Sediment Load (lbs/year)	TP Load (lbs/year)
Little Neshaminy Creek	512,741.05	N/A
Pennypack Creek	1,438,900.4	2,230.64
Southampton Creek	404,673.13	260.51
Total Existing Loads	**2,356,314.58**	**2,491.15**
Short-Term Reductions	**235,631.46 (10% of total)**	**124.56 (5% of total)**

Long Term Warminster Municipal Authority/Township is required to reduce the sediment load in the Little Neshaminy Creek by 17% and the sediment load in the Southampton Creek to 357,905.19 lbs/year.

It is noted:
The Authority/Township plans to systematically achieve the required long-term wasteload allocations through the use of structural and non-structural BMPs intended to remove sediment and TP pollutants from stormwater runoff generated within the TMDL Planning Areas. This MS4 Pollutant Reduction Plan will be evaluated and updated by Warminster Municipal Authority/Township on an as- needed basis, based on its effectiveness in reducing pollutant loads in discharges from the Planning Areas. If the Authority/Township determines that updates are needed, the Authority/Township will work with DEP for review and approval of any revisions or updates.

Below is the required long-term TMDL reduction for each planned area:

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Planning Area	Sediment WLA (from TMDL)	Baseline Load (lbs/year)	Existing Sediment Load (lbs/year)	Long-Term Sediment TMDL Reduction (lbs/year)	WP WLA	Existing TP Load (lbs/year)	Long-Term TP TMDL Reduction (lbs/year)
Little Neshaminy Creek	17% reduction	512,741.05	427,121.7	85,619.32	N/A	N/A	N/A
Pennypack Creek	N/A	1,483,769.21	1,438,900.41	N/A	N/A	N/A	N/A
Southampton Creek	357,364.94 lbs/year	404,673.13	310,567.00	46,797.94 (13.1% reduction)	23,281.81	260.51	13.03 (5% reduction)

Also noted:

At this time, the Authority/Township will prioritize the most cost-effective BMP's with the intent of meeting the WLAs during the permit period.

The Authority/Township has a minimum requirement to reduce sediment by 10% in the Little Neshaminy Creek, Pennypack Creek, and Southampton Creek storm sewersheds. The Authority/Township plans to achieve the sediment reduction by designing, constructing, operating and maintaining Best Management Practices (BMPs). The Authority/Township is required to implement this plan over the next five (5) years. Below is the summary of BMPs for each watershed with total reduction of sediments :

1. Little Neshaminy Creek – 18 (98,285.66 lbs/year)
2. Pennypack Creek - 7 (161,788.62 lbs/year)
3. Southampton Creek- 8 (73,633.32 lbs/year)

Below table summarizes sediment load and required reductions for Warminster Planning area:

Description	Little Neshaminy Creek	Pennypack Creek	Southampton Creek
Watershed Area (acres)	3,689.52	1,610.65	1,463.28
Parsed Area (acres)	577.99	74.725	52.57
Storm Sewershed Area (acres)	3,111.53	1,535.93	1,402.6
Existing Sediment Load (lbs/year)	512,741.05	1,438,900.4	404,673.13
Minimum Required Pollutant Load Reduction (lbs/year)	51,274.11	143,890.00	40,467.31
Wasteload Allocation Reduction (lbs/year)	85,619.32	N/A	46,767.94
Proposed Sediment Load Reduction from BMPs (lbs/year)	98,285.66	161,788.62	73,633.32
Proposed Sediment Total Load with Proposed BMPs Installed (lbs/year)	414,455.39	1,277,111.78	331,039.81

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BMPs Funding:

Funding sources for the proposed structural BMPs outlined in this MS4 Pollutant Reduction Plan could include the following:

a. MS4 Stormwater Fee
b. Developer Cooperation
c. Grant Funding (applying for DEP's Growing Greener Program)

Also noted: *Once the PRP has been approved by PADEP, the Borough intends to approve design of the BMPs, upon which time a feasibility and cost analysis will be prepared and shared with PADEP.*

BMPs Operation and Maintenance:
Warminster Municipal Authority is listed as responsible party for all BMPs.
Noted:
Actual O&M activities will be identified by the Authority/Township in their Annual MS4 Status Reports, submitted under the General Permit. The development and enforcement of the Stormwater O&M agreements are the responsibility of the Authority/Township. Once the PRP has been approved by PADEP and the Authority/Township begins design of the BMPs, an O&M manual will be created and submitted to PADEP for review and comment

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.