

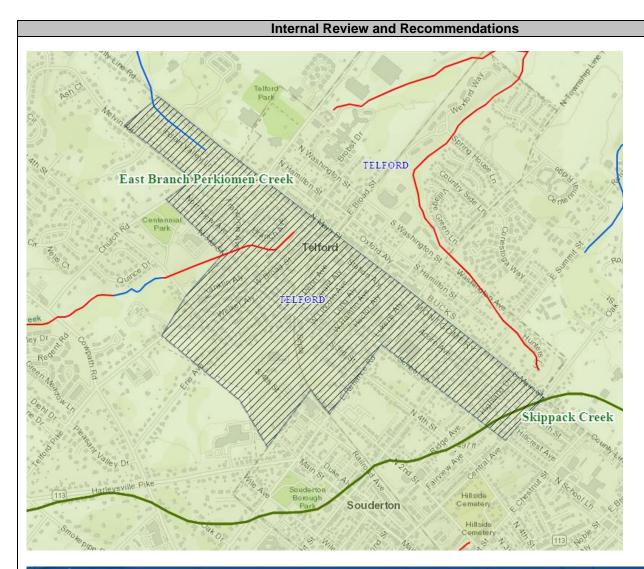
Southeast Regional Office CLEAN WATER PROGRAM

Application Type	Renewal	NDDEC DEDMIT EACT CHEET	Application No.	PAI130035
Facility Type	MS4	NPDES PERMIT FACT SHEET MS4s	APS ID	950316
Permit Type	Individual	141043	Authorization ID	1198089

	Applicant and Facility Information							
Applicant Name	Telford Borough Bucks & Montgomery County	Facility Name	Telford Borough MS4 UA					
Applicant Address	122 Penn Avenue	Facility Address	122 Penn Avenue					
	Telford, PA 18969		Telford, PA 18969-1912					
Applicant Contact	Mark Fournier	Facility Contact	Mark Fournier					
Applicant Phone	(215) 723-5000	Facility Phone	(215) 723-5000					
Client ID	143255	Site ID	613522					
SIC Code	9199	Municipality	Telford Borough					
SIC Description	Public Admin Genral Government, Nec	County	Montgomery					
Date Application Rece	eived September 13, 2017							
Date Application Acce	pted							
Purpose of Application	Application for a renewal of an NPI	DES permit for discharg	ge of treated					

Internal Review and Recommendations
See attached.

Approve	Deny	Signatures	Date
Х			
		Ian Quinlan / Environmental Engineering Specialist	July 5, 2022
Х		Elizabeth Mahoney	
		Elizabeth Mahoney/Environmental Group Manager	July 5, 2022



MS4 Urban Area Report TELFORD BORO, Montgomery County

INDIVIDUAL PERMIT REQUIRED: Yes	REASON: TMDL Plan	NPDES ID: PAG130133
IMPAIRED DOWNSTREAM WATERS	REQUIREMENTS	OTHER CAUSES OF IMPAIRMENT
Indian Creek TMDL	TMDL Plan-Nutrients (4a) TMDL Plan-Nutrients (4a)	
Indian Creek	Appendix E-Siltation (4a)	Cause Unknown TDS (4a)
Mill Creek	Appendix E-Siltation (5)	Water/Flow Variability (4c)
Skippack Creek	Appendix E-Excessive Algal Growth Nutrients (5)	
Skippack Creek Watershed TMDL	TMDL Plan-Siltation (4a)	

The MS4 must comply with Appendix E for the Indian and Mill Creek. The MS4 is meeting their Indian Creek Nutirent TMDL short Term goal by meeting the 10% siltation in the PRP. The MS4 does not need to meet Skippack requirements due to only a small area of the Borough being in the Skippack watershed.

Indian Creek Load

Indian Creek Watershed	
Current Sediment Loading from 2008 TMDL	58,772 lbs/year
Total Area of Indian Creek Watershed in Telford Borough	0.355 sq. miles
Additional Watershed in Borough Park located in Franconia	0.009 sq. miles
Township	
Total Indian Creek Watershed Area within Borough's Responsibility	0.364 sq. miles
Parsed Area	0.055 sq. Miles
MS4 Planning Area in Indian Creek Watershed	0.309 sq. miles
% of Watershed in MS4 Planning Area	84.9%
Portion of Sediment Load Attributed to MS4 Planning Area	49,897 lbs/year
Reduction from Existing BMPs (See below)	11,980 lbs/year
Current Load for Telford Borough's MS4 in the Indian Creek	37,917 lbs/year
Watershed	
Reduction Requirement	10%
Required Sediment Reduction	3,792 lbs/year

Proposed BMPs for Indian Creek Watershed	Sediment Reduction (lbs/year)
PIC #1 - Stover Park Bioswale	21,674
Total Proposed Sediment Reduction	21,674
Required Sediment Reduction	3,792

Alternate BMPs for Indian Creek Watershed	Sediment Reduction (lbs/year)
PIC #2 - Franconia Park Stream Restoration – 100 LF	4,488
PIC #3 - Street Sweeping	383
PIC #4 - Inlet Cleaning	1,896
Total Proposed Sediment Reduction	6,767

Mill Creek Load

Telford Borough Mill Creek Watershed

CALCULATION OF SEDIMENT LOAD REDUCTIO

Simplified Method used to determine existing sediment load to BMPs

Land Use	Maximum Impervious (%)
Developed - Open	20
Developed - Low	49
Developed - Medium	79
Developed - High	100
All others	0

From DEP PRP Instructions:

Sediment Loading:		
Impervious	1839	lbs/ac/year
Pervious	264.96	lbs/ac/year

elford Borough - Mill Creek Watershed

Telford Borough - Mill Creek Wa	k Watershed																							
		Area from Wiki	Area from Map (acres)		Develop	ed - Open			Develop	ed - Low			Developed	f - Medium			Develop	ed - Hish		Pervious Land Uses		Total Pervious (acres)	Sediment Loading (lbs/year)	Existing BMP
				% of	Area of	Impervious	Pervious	% of	Area of	Impervious	Pervious	% of				% of	Area of	Imperviou	zs Pervious	Pervious				_
		l	1	Drainage	Land Use	Area	Area	Drainage	Land Use	Area	Area	Drainage	Area of Land	Impervious	Pervious	Drainage		Area	Area	Area	1			1
	1	l	1	Area	(acres)	(acres)	(acres)	Area	(acres)	(acres)	(acres)	Area	Use (acres)	Area (acres)	Area (acres)	Area	(acres)	(acres)	(acres)	(acres)	1	l .		1
1	83917	20.73	20.68	30	6.20	1.24	4.96	43.3	8.95	4.39	4.57	18.9	3.91	3.09	0.82	2.3	0.45	0.4	45 0.0	1.16	9.17	11.51	19912.54	Yes
2	46699	11.54	10.33	11.5	1.19	0.24	0.95	25	2.58	1.27	1.32	25	2.58	2.04	0.54	9.6	0.99	0.5	0.0	2.98	4.53	5.79	9872.96	Yes
3	88952	21.97	22.40	8.9	1.99		1.60		0.00	0.00	0.00	0	0.00	0.00	0.00	- (0.00	0.0	0.0	20.43	0.40	22.00	6563.73	No.
4	70051	17.30							6.35	3.11			8.89	7.03							11.67			
5	33477	8.27								2.22			2.38	1.88										
6	35954	8.88								2.40	2.49		3.49	2.76								3.32		
7	28022	6.92								2.04	2.13	12.5	0.79	0.63		-	0.00					3.41		
8	45142	11.15					1.19		8.73	4.28	4.45	0	0.00	0.00		-	0.00					7.65		
9	28474	7.03	6.65		0.41		0.32		6.25	3.06	3.19	0	0.00	0.00		-	0.00					3.51		
10	116211	28.71			0.00					9.77	10.17	0	0.00	0.00			0.00					0.97		
11	6324	1.56			0.00					0.66	0.69		0.00	0.00		-	0.00							
13	14035	3.47								0.98	1.02		0.00	0.00			0.00							
14	42319	10.45			0.86					2.74			3.87	3.06			0.00					4.35		
15	2453	0.61			0.00					0.29			0.00	0.00			0.00					0.30		
16	28490	7.04	7.62				2.29	59.4	4.53	2.22	2.31	3.1	0.24	0.19	0.05		0.00	0.0	0.0	0.00		4.64	6703.72	No
17	60401	14.92	14.36	24	3.45	0.69	2.76	63.8	9.16	4.49	4.67	11	1.58	1.25	0.33		0.00	0.0	0.0	0.13	6.43	7.93	13918.55	5 No
18	34902	8.62	8.60				2.17	57.9	4.98	2.44	2.54	10.5	0.90	0.71			0.00	0.0	0.0	0.00	3.70	4.90	8094.75	No
19	3052	0.75							0.42	0.21	0.22	0	0.00	0.00			0.00	0.0	0.0	0.00		0.35		
20	135638	33.50	33.09	40.1	13.27	2.65	10.62	46.7	15.45	7.57	7.88	11.2	3.71	2.93	0.78	-	0.00	0.0	0.0	0.66	13.15	19.94	29473.13	1 Yes
Total			221.23																		93.03	128.15	205051.70	d .

Telford Borough Mill Creek Watershed

CALCULATION OF SEDIMENT LOAD REDUCTION

Simplified Method used to determine existing sediment load to BMPs Calculation of Reduction from Existing BMPs

Calculation of Reduction from Existing BMP

	Area to BMP	Loading to BMP	Reduction	Reduction	
Subwatershed - BMP	(acres)	(lbs/year)	(%)	(lbs/year)	BMP ID#
1 - Rain Garden	0.42	244	70	171	EMC#1
1 - Parking Infiltration	0.18	328	95	312	EMC #2
1 - Green Roof	0.19	350	85	298	EMC#3
2 - Dry Detention Basin	10.33	9873	10	987	EMC#4
8 - Dry Detention Basin	12.22	10439	10		EMC #5
10 - Dry Detention Basin	27.27	23995	10	2399	EMC#6
Total Sediment Reduction fro	om Existing BMPs:			5211	

		Area from Wiki																					
		or										1									Total	Total	Sediment
	Area (Sq.	Measurement	l					l				1				l				Pervious	Impervious	Pervious	Loading
Subwatershed	Meters)	(acres)	Area (SF)		Develope	d - Open			Develop	ed - Low			Develope	d - Medium			Develop	ed - High		Land Uses	(acres)	(acres)	(lbs/year)
				% of	Area of	Impervious	Pervious	% of	Area of	Impervious	Pervious	% of				% of	Area of	Impervious	Pervious	Pervious			
			l	Drainage	Land Use	Area	Area	Drainage	Land Use	Area	Area	Drainage	Area of Land	Impervious	Pervious	Drainage	Land Use	Area	Area	Area			l
				Area	(acres)	(acres)	(acres)	Area	(acres)	(acres)	(acres)	Area	Use (acres)	Area (acres)	Area (acres)	Area	(acres)	(acres)	(acres)	(acres)			
1 - Rain Garden	1704	0.42		100	0.42	0.08	0.34		0.00	0.00	0.00		0.00	0.00	0.00	Ó	0.00	0.00	0.00	0.00	0.08	0.34	24
1 - Parking Infiltration	722	0.18		0	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	100	0.18	0.18	0.00	0.00	0.18	0.00	3
1 - Green Roof		0.19	8300.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	100	0.19	0.19	0.00	0.00	0.19	0.00	35

Determine of Existing Sediment Load for the MS4 Planning Area of Mill Creek in Telford Borough

Calculated Sediment Load	205,052	lbs/year
Reduction from Existing BMPs	5,211	lbs/year
Existing Sediment Load	199,841	lbs/year
IO% Reduction Required for	19,984	lbs/year

PROPOSED BMPS FOR PRP SEDIMENT REQUIREMENT:

PMC #1: Bioswale at Hunters Lane - North

A bioswale was constructed along Hunters Lane in 2018 with a grant and assistance from the Perkiomen Watershed Conservancy.

Location of Work: 40.321302, -75.318715

Drainage Area to Bioswale: 8.22 acres
Sediment Load to Bioswale: 5,990 lbs/year

Reduction Rate from BMP Effectiveness Values: 80%

Sediment Reduction Achieved: 4,792 lbs/year

Annual Sediment Removal Rate for Bioswale: 4,792 lbs/year

PMC #2: Bioswale at Hunters Lane - South

Asecond bioswale is proposed to treat the runoff from the southern storm sewer system at Hunters Lane.

Location of Work: 40.320909, -75.318685

Drainage Area to Bioswale: 21.97 acres
Sediment Load to Bioswale: 19,224 lbs/year

Reduction Rate from BMP Effectiveness Values: 80%

Sediment Reduction Achieved: 15,379 lbs/year

Annual Sediment Removal Rate for Bioswale: 15,379 lbs/year

Annual Sediment Removal Proposed: 20,171 lbs/year Required Annual Sediment Removal for Permit Period: 19,984 lbs/year

PROPOSED ALTERNATE BMPS:

PMC #3: Bioswale at Village Green

A potential alternate BMP would be to create a bioswale for the runoff entering the detention basin in the Village Green development.

Location of Work: 40.326932, -75.323941

Drainage Area to Bioswale: 10.28 acres
Sediment Load to Bioswale: 8,630 lbs/year

Reduction Rate from BMP Effectiveness Values: 80%

Sediment Reduction Achieved: 6,904 lbs/year

Annual Sediment Removal Rate for Bioswale: 6,904 lbs/year

PMC#4: Street Sweeping

The Borough sweeps all streets in the Borough several times a year. If additional reductions are needed to achieve the required sediment reductions, the Borough will document that the roads in the MS4 Planning area are swept 4 times per year

Calculation using Expert Panel Report for Street and Storm Drain Cleaning Practices, 5/19/16.

One impervous acre equals one curb lane mile. (pg. 6 of Expert Panel Report)

Location of Work: Throughout MS4 Planning Area in Mill Creek Watershed.

Miles of Roads in Mill Creek MS4 Planning Area: 5.96 miles
Curb Lane miles per mile of road: 2

Impervious Acres: 11.92 acres

Sediment Loading Rate for Impervious Area 1,839 lbs/acre/year Sediment Loading for Roads in Mill Creek MS4 Planning / 21,921 lbs/year

% Sediment Reduction for 4 passes/year 2%

Annual Sediment Removal 438 lbs/year

Annual Sediment Removal Rate for Street Sweeping: 438 lbs/year

PMC #5: Inlet Cleaning

The Borough cleans the inlets in the Borough as needed. If additional reductions are needed to achieve the required sediment reductions, the Borough will document that the sediment removal from the inlets in the MS4 Planning area

Number of inlets cleaned per year 157 inlets
Annual Sediment Removal 9,910 lbs/year

See calculation for Sediment Reductions from Inlet Cleaning.

Maximum permitted for PRP Plan 9,992 lbs/year

BMP Effectiveness Values, PADEP 5/2016 only allows that 50% of the total pollutant reduction be met through this

BMP.

Maximun Allowable Reduction from Inlet Cleaning 9,910 lbs/year

Funding:

The Borough will budget for the implementation of the proposed BMPs within the 5-year permit period. The work is expected to be performed by the Borough's Public Works Department.

Operation and Maintenance (O&M)

<u>O&M for Bioswales</u> – The following O&M tasks should be performed annually and after major storm events:

- Inspect and correct erosion problems, damage to vegetation, and sediment and debris accumulation; reseed/replant as needed
- Inspect vegetation on side slopes for erosion and formation of gullies; correct as needed
- Inspect for pools of standing water; regrade as needed
- Mow and/or trim vegetation to suppress weeds and invasive vegetation
- Inspect the entry and exit points of the swale for signs of erosion or blockage; correct as needed

O&M for Street Sweeping & Inlet Cleaning

- Schedule during dry weather
- Document quantity of material removed, percent of sediment in material, and location of streets swept and/or inlets cleaned

Public Participation

The TMDL/ PRP public notice was published in local newspaper on April 1, 2022. The plan was made available for public review in the township building and in its website from April 1 to May 9. A comment period was provided from April 1 to May 9. A public meeting was held on May 2, which included this TMDL Plan in the agenda. The township received no comments from the public on TMDL Plan.

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.