



POLLUTANT REDUCTION PLAN (PRP) / TMDL PLAN FINAL REPORT

Before completing this report please review the instructions, which are located within the Annual MS4 Status Report Instructions (3800-FM-BCW0491)

PRP / TMDL PLAN SUMMARY

Permittee Name: West Mifflin MS4 Joint Client

Permit No.: PAG136166 A-1

☒ PRP ☐ TMDL Plan ☐ Combined PRP / TMDL Plan

Plan Approval Date: 7/9/2018

Required Completion Date: 3/15/2023

Joint Plan? ☐ Yes ☐ No *If Yes, identify all participating permittees as an attachment to this report*

Surface Waters Addressed by Plan: Streets Run, Homestead Run, UNT to Monongahela River

Permittee's Planning Area (acres): 3169

Total Planning Area (Joint Plans): _____ acres

Pollutant Load Reduction Calculation Methodology:

☒ Simplified Method ☐ Mapshed ☒ ModelMyWatershed ☒ Other: ArcGIS

	TSS	TN	TP
Baseline Pollutant Load – Planning Area	675439 lbs/yr	lbs/yr	2049 lbs/yr
Pollutant Load Reduction Requirement (%)	10 %	%	5 %
Pollutant Load Reduction Requirement (lbs/yr)	67544 lbs/yr	lbs/yr	102 lbs/yr
WLA Reduction Requirement (TMDL Plan only)	lbs/yr	lbs/yr	lbs/yr

BMP IMPLEMENTATION

BMP Type	No. of BMPs	Pollutant Load Reductions Achieved (Credit)		
		TSS	TN	TP
Structural BMPs		lbs/yr	lbs/yr	lbs/yr
Non-Structural BMPs		lbs/yr	lbs/yr	lbs/yr
Total		lbs/yr	lbs/yr	lbs/yr

Pollutant Load Reductions are documented on the following attachments:

☐ Attachment A – Infiltration BMPs No.: _____

☐ Attachment B – BMP Retrofits No.: _____

☐ Attachment C – Stream and/or Floodplain Restoration No.: _____

☐ Attachment D – Street Sweeping or Storm Drain Solids Removal No.: _____

☐ Attachment E – Tree Planting No.: _____

☐ Attachment F – Non-structural (Annual Practice) BMPs No.: _____

☐ BMP(s) have been implemented for which there are no attachments (*attach calculations*)

COMPLIANCE DETERMINATION

Were the pollutant load reduction requirements of the permit met? ☐ Yes ☒ No

If the pollutant load reduction requirements of the permit were **not met**, report the required load reductions remaining in lbs/yr and as a percentage of the total required load reduction.

	TSS		TN		TP	
Load Reduction Remaining	67544	lbs/yr		lbs/yr	102	lbs/yr
Percent of Required Load Reduction Remaining	100	%		%	100	%

If the pollutant load reduction requirements of the permit were not met, attach an explanation and provide a schedule for completing implementation of the PRP or TMDL Plan, including interim milestones.

CERTIFICATION

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

Jessica Emerick

Responsible Official Name

Director

Official Title



Signature

2.14.24

Date Signed

COMPLIANCE DETERMINATION

Were the pollutant load reduction requirements of the permit met? ☐ Yes ☒ No

If the pollutant load reduction requirements of the permit were **not met**, report the required load reductions remaining in lbs/yr and as a percentage of the total required load reduction.

	TSS		TN		TP	
Load Reduction Remaining	67544	lbs/yr		lbs/yr	102	lbs/yr
Percent of Required Load Reduction Remaining	100	%		%	100	%

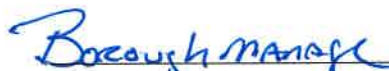
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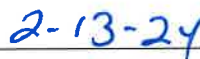
Responsible Official Name



Official Title



Signature



Date Signed

ATTACHMENT A – INFILTRATION BMPs

GENERAL INFORMATION

Permittee Name: _____ Permit No.: _____
 BMP Name: _____ Latitude: _____
 Surface Waters: _____ Longitude: _____
 Municipality: _____ County: _____
☐ Construction of the BMP is Complete. Date Construction Completed: _____
☐ Photographs, Drawings, and O&M Plan are attached. Inspection/Monitoring Frequency: _____
 Permits or Approvals Obtained: _____
 Party Responsible for Long-Term O&M: ☐ Permittee ☐ Other: _____
 Joint BMP? ☐ Yes ☐ No *If Yes, attach a list of other permittees sharing credit for the BMP*
 Type of BMP (see instructions): _____
 BMP Effectiveness Values: TSS: _____ % TN: _____ % TP: _____ %
 Effectiveness Values Source: ☐ DEP ☐ CB Expert Panel Report ☐ Other: _____

BMP CONSTRUCTION

BMP Infiltrating Surface Area (ft²): _____ Ponding Depth (ft): _____ ☐ Underdrain
 Media Description: _____ Media Depth (ft): _____
☐ Vegetated Loading Ratio (see instructions): _____ WQ Storage Volume (ft³): _____

TSS LOAD DELIVERED TO BMP

Total Drainage Area Treated by BMP: _____ acres (Treatment Area)

TSS Load Delivered to BMP – Simplified Method

☐ Calculations attached

Pollutant	Land Cover	Area (acres)	Loading Rate (lbs/ac/yr)	Delivered Load (lbs/yr)
TSS	Impervious			
	Pervious			
Total TSS Load Delivered to BMP (lbs/yr) =				

TSS Load Delivered to BMP – Land Cover-Based Calculation Method

☐ Calculations attached

Pollutant	Land Cover	Area (acres)	Loading Rate (lbs/ac/yr)	Delivered Load (lbs/yr)
TSS				
Total TSS Load Delivered to BMP (lbs/yr) =				

TSS LOAD REDUCTION CREDIT

TSS Load Delivered to BMP (_____ lbs/yr) x TSS Effectiveness Value (_____ %) = _____ lbs/yr TSS Credit
 Permittee Credit for Joint BMPs (if applicable): _____ % or _____ lbs/yr TSS Credit

Permittee Name: _____ Permit No.: _____
 BMP Name: _____ Latitude: _____
 Surface Waters: _____ Longitude: _____
 Municipality: _____ County: _____
☐ Construction of the BMP is Complete. Date Construction Completed: _____
☐ Photographs, Drawings, and O&M Plan are attached. Inspection/Monitoring Frequency: _____
 Permits or Approvals Obtained: _____
 Party Responsible for Long-Term O&M: ☐ Permittee ☐ Other: _____
 Joint BMP? ☐ Yes ☐ No *If Yes, attach a list of other permittees sharing credit for the BMP*
 Effectiveness Values Source:
☐ DEP: BMP Type (Pre): _____ BMP Type (Post): _____
 Retrofit TSS Effectiveness Value: _____ % (Post – Pre Effectiveness Values)
☐ CB Expert Panel Report: ☐ Runoff Reduction (RR) ☐ Sediment Treatment (ST)
 RS (ac-ft): IA (ac): R/IA (in): Retrofit TSS Effectiveness Value: %

BMP Infiltrating Surface Area (ft²): _____ Ponding Depth (ft): _____ ☐ Underdrain

Media Description: _____ Media Depth (ft): _____

☐ Vegetated Loading Ratio (*see instructions*): _____ WQ Storage Volume (ft³): _____

Total Drainage Area Treated by BMP: acres (Treatment Area)

☐ Calculations attached

Pollutant	Land Cover	Area (acres)	Loading Rate (lbs/ac/yr)	Delivered Load (lbs/yr)
TSS	Impervious			
	Pervious			
Total TSS Load Delivered to BMP (lbs/yr) =				

☐ Calculations attached

Pollutant	Land Cover	Area (acres)	Loading Rate (lbs/ac/yr)	Delivered Load (lbs/yr)
TSS				
Total TSS Load Delivered to BMP (lbs/yr) =				

TSS Load Delivered to BMP (lbs/yr) x TSS Effectiveness Value = _____ lbs/yr TSS Credit

Permittee Credit for Joint BMPs (if applicable): % or lbs/yr TSS Credit

ATTACHMENT C – STREAM RESTORATION

GENERAL INFORMATION

Permittee Name: _____ Permit No.: _____
BMP Name: _____ Latitude: _____
Surface Waters: _____ Longitude: _____
Municipality: _____ County: _____
☐ Construction of the BMP is Complete. Date Construction Completed: _____
☐ Photographs, Drawings, and O&M Plan are attached*. Inspection/Monitoring Frequency: _____
Permits or Approvals Obtained: _____
Party Responsible for Long-Term O&M: ☐ Permittee ☐ Other: _____
Joint BMP? ☐ Yes ☐ No *If Yes, attach a list of other permittees sharing credit for the BMP*

STREAM RESTORATION TYPE

Stream Restoration – Default Rate: _____ Expert Panel Report Protocols (Select all that apply):
☐ Simplified Method (44.88 lbs/ft/yr) ☐ Protocol 1: Prevented Sediment
☐ Mapshed/Model My Watershed (115 lbs/ft/yr) ☐ Protocol 2: Instream and Riparian Nutrient Processing
☐ Protocol 3: Floodplain Reconnection
Does the restoration meet all the minimum qualifying conditions for stream restoration? ☐ Yes ☐ No

TSS LOAD REDUCTION – DEFAULT RATE

Total restoration length (center line of stream) (ft): _____
Restoration length stabilized using hard armoring (if applicable) (ft): _____
Restoration length armored by “Creditable w/Limits” practices (if applicable) (ft): _____
Percent of total restoration length armored by “Creditable w/Limits” practices (%): _____
Creditable restoration length (ft): _____
TSS Credit: Creditable restoration length (_____ ft) x Default Rate (_____ lbs/ft/yr) = _____ lbs/yr TSS
Permittee Credit for Joint BMPs (if applicable): _____ % or _____ lbs/yr TSS Credit

POLLUTANT LOAD REDUCTIONS – EXPERT PANEL PROTOCOLS

Total restoration length (ft): _____ Floodplain area created (if applicable) (ac): _____
Protocol 1 Pollutant Load Reduction: TSS: _____ lbs/yr TN: _____ lbs/yr TP: _____ lbs/yr
Protocol 2 Pollutant Load Reduction: TSS: _____ lbs/yr TN: _____ lbs/yr TP: _____ lbs/yr
Protocol 3 Pollutant Load Reduction: TSS: _____ lbs/yr TN: _____ lbs/yr TP: _____ lbs/yr
Permittee Credit for Joint BMPs (if applicable): _____ % or _____ lbs/yr TSS Credit

*** See Annual MS4 Status Report Instructions (3800-FM-BCW0491) for additional required attachments.**

ATTACHMENT D – STREET SWEEPING OR STORM SEWER SOLIDS REMOVAL

GENERAL INFORMATION

Permittee Name: _____ Permit No.: _____
 BMP Name: _____ Latitude: _____
 Surface Waters: _____ Longitude: _____
 Municipality: _____ County: _____
☐ Required documentation is attached*. Sweeping/Removal Frequency: _____
 Joint BMP? ☐ Yes ☐ No *If Yes, attach a list of other permittees sharing credit for the BMP*

CREDITING METHOD

BMP Type: ☐ Street Sweeping ☐ Storm Sewer Solids Removal
Expert Panel Report Advanced Sweeping Technology: ☐ SCP-1 (AST- 2 PW) ☐ SCP-2 (AST- 1 PW)
☐ SCP-3 (AST- 1 P2W) ☐ SCP-4 (AST- 1 P4W) ☐ SCP-5 (AST- 1 P8W) ☐ SCP-6 (AST- 1 P12W)
☐ SCP-7 (AST- S1 or S2) ☐ SCP-8 (AST- S3 or S4)
Expert Panel Report Mechanical Broom Technology: ☐ SCP-9 (MBT- 2PW) ☐ SCP-10 (MBT- 1 PW)
☐ SCP-11 (MBT- 1 P4W)
DEP Effectiveness Value Table: ☐ DEP Default
Expert Panel Report: ☐ Mass Loading – Street Sweeping ☐ Mass Loading – Solids Removal
 Impervious area swept within planning area: _____ acres
 BMP Effectiveness Values (if applicable): TSS: _____ % TN: _____ % TP: _____ %

TSS LOAD REDUCTION – EFFICIENCY APPROACH

Sediment Load Generated by Impervious – Simplified Method

Pollutant	Land Cover	Area Swept (ac)	Loading Rate (lbs/ac/yr)	Generated Load (lbs/yr)
TSS	Impervious			

Sediment Load Generated by Impervious – Land Cover-Based Calculation Method

Pollutant	Land Cover	Area Swept (ac)	Loading Rate (lbs/ac/yr)	Generated Load (lbs/yr)
TSS				
TSS				

Total:

TSS Load Generated by Impervious (_____ lbs/yr) x TSS Effectiveness Value (_____ %) = _____ lbs/yr TSS

TSS LOAD REDUCTION – MASS LOADING APPROACH

Sediment Load Reduction (lbs of TSS collected)	Permit Year 1 (Y1)	Permit Year 2 (Y2)	Permit Year 3 (Y3)	Permit Year 4 (Y4)	Permit Year 5 (Y5)
	lbs	lbs	lbs	lbs	lbs

Average annual TSS reduction (Y1 + Y2 + Y3 + Y4 + Y5) / 5 = _____ lbs/yr TSS

Permittee Credit for Joint BMPs (if applicable): _____ % or _____ lbs/yr TSS

*** See Annual MS4 Status Report Instructions (3800-FM-BCW0491) for required attachments.**

ATTACHMENT E – TREE PLANTING

GENERAL INFORMATION

Permittee Name: _____ Permit No.: _____
BMP Name: _____ Latitude: _____
Surface Waters: _____ Longitude: _____
Municipality: _____ County: _____
☐ Required documentation is attached*.
Joint BMP? ☐ Yes ☐ No *If Yes, attach a list of other permittees sharing credit for the BMP*

BMP TREATMENT AREA

DEP estimates that 100 fully mature trees of mixed species (both deciduous and non-deciduous) provide pollutant load reductions for the equivalent of one acre (i.e., one mature tree = 0.01 acre).

Trees Planted within Planning Area: _____ x 0.01 = BMP Treatment Area (ac): _____

TSS LOAD REDUCTION CREDIT

TSS loading rate for land prior to planting trees: _____ lbs/ac/yr TSS

Method used to determine existing loading rate prior to planting trees:

- ☐ Simplified Method – use pervious loading rate for county
☐ Land Cover-based calculation method – use loading rate for land cover type on which trees are planted

BMP effectiveness values for tree planting: TSS 20%; TN 10%; TP 15%

BMP Treatment Area (_____ ac) x TSS loading rate (_____) lbs/ac/yr x 20% = _____ lbs/yr TSS

Permittee Credit for Joint BMPs (if applicable): _____ % or _____ lbs/yr TSS

*** See Annual MS4 Status Report Instructions (3800-FM-BCW0491) for required attachments.**

ATTACHMENT F – NON-STRUCTURAL (ANNUAL PRACTICE) BMPs

GENERAL INFORMATION

Permittee Name: _____	Permit No.: _____
BMP Name: _____	Latitude: _____
Surface Waters: _____	Longitude: _____
Municipality: _____	County: _____

☐ Required documentation is attached*.

Joint BMP? ☐ Yes ☐ No *If Yes, attach a list of other permittees sharing credit for the BMP*

ELIGIBILITY AND BMP TYPE

Is the BMP located in the Planning Area? ☐ Yes ☐ No

Is the BMP required to meet regulatory requirements? ☐ Yes ☐ No

Permittees may only credit those reductions that will occur as a result of exceeding regulatory requirements.

BMP Type:

☐ Till – Low Residue ☐ Till – High Residue ☐ Conservation Till ☐ Cover Crops

☐ Other: _____

BMP Effectiveness Values: TSS: _____ % TN: _____ % TP: _____ %

Effectiveness Value Source:

☐ Chesapeake Bay Expert Panel Report ☐ Other: _____

BMP IMPLEMENTATION AREA

BMP Implementation Area: _____ acres

TSS Load Delivered to BMP – Simplified Method ☐ Calculations attached

Pollutant	Land Cover	Area (acres)	Loading Rate (lbs/ac/yr)	Delivered Load (lbs/yr)
TSS	Impervious			
	Pervious			
Total TSS Load Delivered to BMP (lbs/yr) =				

TSS Load Delivered to BMP – Land Cover-Based Calculation Method ☐ Calculations attached

Pollutant	Land Cover	Area (acres)	Loading Rate (lbs/ac/yr)	Delivered Load (lbs/yr)
TSS				
Total TSS Load Delivered to BMP (lbs/yr) =				

TSS LOAD REDUCTION CREDIT

TSS Load Delivered to BMP (lbs/yr) x TSS Effectiveness Value = _____ lbs/yr TSS Credit

Permittee Credit for Joint BMPs (if applicable): _____ % or _____ lbs/yr TSS Credit

*** See Annual MS4 Status Report Instructions (3800-FM-BCW0491) for required attachments.**