



**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES
POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) MODULE 2**

Applicant: **AAMPA Holdings, LLC**Project Site Name: **AAMPA Holdings - Ritner Hwy**Surface Water Name(s): **Big Spring Creek**Surface Water Use(s): **HQ-CWF**

PCSM PLAN INFORMATION

1. Identify all structural and non-structural PCSM BMPs that have been selected and provide the information requested.

Discharge Point(s)	BMP ID	BMP Name	BMP Manual	Latitude	Longitude	DA Treated (ac)
001	P-1	MRC Bio-Retention Pond	6.4.5	40.138389	-77.386963	9.81
001	SS-1	MRC Subsurface Infiltration Basin	6.4.3	40.136706	-77.385958	7.94
001	P-2	MRC Bio-Retention Pond	6.4.5	40.132618	-77.382134	5.55
001	SS-2	Subsurface Infiltration Basin	6.4.3	40.133418	-77.383256	7.90
001	P-3	MRC Bio-Retention Pond	6.4.5	40.137690	-77.388864	10.85
001	SS-3	Subsurface Infiltration Basin	6.4.3	40.135397	-77.388333	9.66
001	SS-4	Subsurface Infiltration Basin	6.4.3	40.135571	-77.389292	2.59
001	P-4	Bio-Retention Pond	6.4.5	40.134119	-77.388829	5.71
001	SS-5	Subsurface Infiltration Basin	6.4.3	40.134514	-77.385034	3.86
001	SS-6	Subsurface Infiltration Basin	6.4.3	40.132424	-77.384463	12.24
001	P-5	MRC Bio-Retention Pond	6.4.5	40.136880	-77.390480	3.17
001	SS-7	MRC Subsurface Infiltration Basin	6.4.3	40.134800	-77.390723	2.59
001	P-6	MRC Bio-Retention Pond	6.4.5	40.135141	-77.391650	6.92
001	P-7	Bio-Retention Pond	6.4.5	40.136053	-77.391970	3.18

Undetained Areas: 20.83 acre(s)
☐ The Project Qualifies as a Site Restoration Project (25 Pa. Code §102.8(n))

2. Describe the sequence of PCSM BMP implementation in relation to earth disturbance activities and a schedule of inspections for the critical stages of PCSM BMP installation.

See PCSM Plan Set, C-701 - 'Sequence of Construction'

3.	☒ Plan drawings have been developed for the project and will be available on-site.
4.	☒ Plan drawings have been developed for the project and are attached to the NOI/application.
5.	☒ Recycling and proper disposal of materials associated with PCSM BMPs are addressed as part of long-term operation and maintenance of the PCSM BMPs.
6.	Identify naturally occurring geologic formations or soil conditions that may have the potential to cause pollution after earth disturbance activities are completed and PCSM BMPs are operational and the applicant's plan to avoid or minimize potential pollution and its impacts. Per "Pennsylvania Geological Survey, 2005, Geologic units containing potentially significant acid-producing sulfide minerals: Pennsylvania Geological Survey, 4th ser., Open-File Report OFMI 05-01.1, 9 p." there are no minerals (e.g. pyrite) in sufficient quantities to cause concern of discharges which do not meet water quality standards. The site is in an area with "Karst" geology and there is the potential for sinkholes. If sinkholes are discovered following construction, they shall be mitigated under the direction of a Geotechnical Engineer.
7.	Identify whether the potential exists for thermal impacts to surface waters from post-construction stormwater. If such potential exists, identify BMPs that will be implemented to avoid, minimize, or mitigate potential thermal impacts. The proposed runoff generated by the proposed impervious coverage will be managed by the proposed MRC and structural BMP's. These BMP's will manage the required volume, rate, and quality requirements in the attached spreadhseets. These BMP's will reduce the thermal impacts to the downstream surface waters with the implimentation of infiltration and the manage release concept.
8.	☒ The PCSM Plan has been planned, designed, and will be implemented to be consistent with the E&S Plan.
9.	☒ A pre-development site characterization has been performed.

STORMWATER ANALYSIS – RUNOFF VOLUME

Surface Water Name: **Big Spring Creek**

Discharge Point(s): **001**

1. ☐ The design standard is based on volume management requirements in an Act 167 Plan approved by DEP within the past five years.
2. ☒ The design standard is based on managing the net change for storms up to and including the 2-year/24-hour storm.
3. ☐ An alternative design standard is being used.
4. ☒ A printout of DEP's PCSM Spreadsheet – Volume Worksheet is attached.
5. 2-Year/24-Hour Storm Event: **2.79** inches Source of precipitation data: **NOAA**
6. Stormwater Runoff Volume, Pre-Construction Conditions: **96,371** CF ☒ Calculations attached
7. Stormwater Runoff Volume, Post-Construction Conditions: **673,154** CF ☒ Calculations attached
8. Net Change (Post-Construction – Pre-Construction Volumes): **576,782** CF
9. Identify all selected structural PCSM BMPs and provide the information requested. ☒ Calculations attached

DP No.	BMP ID	Series	Vol. Routed to BMP (CF)	Inf. Area (SF)	Inf. Rate (in/hr)	Inf. Period (hrs)	Veg?	Media Depth (ft)	Storage Vol. (CF)	Inf. Credit (CF)	ET Credit (CF)
							☐				
							☐				
							☐				
							☐				
							☐				
							☐				
							☐				
							☐				
							☐				

Total Infiltration & ET Credits (CF): **510,231**

Non-Structural BMP Volume Credits (CF) (Attach Calculations): **0**

Managed Release Credits (CF) (Attach MRC Design Summary): **93,176**

Volume Required to Reduce/Manage (CF): **576,782**

Total Credits (CF): **603,407**

INFILTRATION INFORMATION			
BMP ID: P-1		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed:	3		
2. Method(s) used for infiltration testing:	Double Ring Infiltration, Percolation Test		
3. Test Pit Identifiers (from PCSM Plan Drawings):	TP-1, TP-2, TP-3		
4. Avg Infiltration Rate:	0.41	in/hr	5. FOS: : 1
6. Infiltration rate used for design:	0.30	in/hr	
7. Separation distance between the BMP bottom and bedrock:	N/A feet		
8. Separation distance between the BMP bottom and seasonal high-water table:	N/A feet		
9. Comments:	Double Ring Infiltration FOS: 2 Percolation Test FOS: 3		
BMP ID: P-2		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed:	4		
2. Method(s) used for infiltration testing:	Double Ring Infiltration, Percolation Test		
3. Test Pit Identifiers (from PCSM Plan Drawings):	TP-53, TP-54, TP-55, TP-56		
4. Avg Infiltration Rate:	0.66	in/hr	5. FOS: : 1
6. Infiltration Rate Used for Design:	0.34	in/hr	
7. Separation distance between the BMP bottom and bedrock:	N/A feet		
8. Separation distance between the BMP bottom and seasonal high-water table:	N/A feet		
9. Comments:	Double Ring Infiltration FOS: 2 Percolation Test FOS: 3		
BMP ID: P-3		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed:	6		
2. Method(s) used for infiltration testing:	Double Ring Infiltration, Percolation Test		
3. Test Pit Identifiers (from PCSM Plan Drawings):	TP-4, TP-5, TP-6, TP-7, TP-8, TP-9		
4. Avg Infiltration Rate:	0.57	in/hr	5. FOS: : 1
6. Infiltration Rate Used for Design:	0.34	in/hr	

7.	Separation distance between the BMP bottom and bedrock:	N/A	feet
8.	Separation distance between the BMP bottom and seasonal high-water table:	N/A	feet
9.	Comments :	Double Ring Infiltration FOS: 2 Percolation Test FOS: 3	

INFILTRATION INFORMATION			
BMP ID: P-4		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed:	5		
2. Method(s) used for infiltration testing:	Double Ring Infiltration, Percolation Test		
3. Test Pit Identifiers (from PCSM Plan Drawings):	TP-41, TP-42, TP-43, TP-44, TP-45		
4. Avg Infiltration Rate:	1.95 in/hr	5. FOS:	: 1
6. Infiltration rate used for design:	1.09 in/hr		
7. Separation distance between the BMP bottom and bedrock:	N/A feet		
8. Separation distance between the BMP bottom and seasonal high-water table:	N/A feet		
9. Comments: Double Ring Infiltration FOS: 2 Percolation Test FOS: 3			
BMP ID: P-5		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed:	3		
2. Method(s) used for infiltration testing:	Double Ring Infiltration, Percolation Test		
3. Test Pit Identifiers (from PCSM Plan Drawings):	TP-10, TP-11, TP-12		
4. Avg Infiltration Rate:	0.76 in/hr	5. FOS:	: 1
6. Infiltration Rate Used for Design:	0.51 in/hr		
7. Separation distance between the BMP bottom and bedrock:	N/A feet		
8. Separation distance between the BMP bottom and seasonal high-water table:	N/A feet		
9. Comments: Double Ring Infiltration FOS: 2 Percolation Test FOS: 3			
BMP ID: P-6		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed:	4		
2. Method(s) used for infiltration testing:	Double Ring Infiltration, Percolation Test		
3. Test Pit Identifiers (from PCSM Plan Drawings):	TP-49, TP-50, TP-51, TP-52		
4. Avg Infiltration Rate:	0.43 in/hr	5. FOS:	: 1
6. Infiltration Rate Used for Design:	0.37 in/hr		

7.	Separation distance between the BMP bottom and bedrock:	N/A	feet
8.	Separation distance between the BMP bottom and seasonal high-water table:	N/A	feet
9.	Comments :	Double Ring Infiltration FOS: 2 Percolation Test FOS: 3	

INFILTRATION INFORMATION			
BMP ID: P-7		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed:	3		
2. Method(s) used for infiltration testing:	Double Ring Infiltration, Percolation Test		
3. Test Pit Identifiers (from PCSM Plan Drawings):	TP-13, TP-14, TP-15		
4. Avg Infiltration Rate:	0.76 in/hr	5. FOS:	: 1
6. Infiltration rate used for design:	0.51 in/hr		
7. Separation distance between the BMP bottom and bedrock:	N/A feet		
8. Separation distance between the BMP bottom and seasonal high-water table:	N/A feet		
9. Comments:	Double Ring Infiltration FOS: 2 Percolation Test FOS: 3		
BMP ID: SS-1		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed:	6		
2. Method(s) used for infiltration testing:	Double Ring Infiltration, Percolation Test		
3. Test Pit Identifiers (from PCSM Plan Drawings):	TP-21, TP-22, TP-23, TP-24, TP-25, TP-26		
4. Avg Infiltration Rate:	0.36 in/hr	5. FOS:	: 1
6. Infiltration Rate Used for Design:	0.29 in/hr		
7. Separation distance between the BMP bottom and bedrock:	N/A feet		
8. Separation distance between the BMP bottom and seasonal high-water table:	N/A feet		
9. Comments:	Double Ring Infiltration FOS: 2 Percolation Test FOS: 3		
BMP ID: SS-2		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed:	3		
2. Method(s) used for infiltration testing:	Double Ring Infiltration, Percolation Test		
3. Test Pit Identifiers (from PCSM Plan Drawings):	TP-57, TP-58, TP-59		
4. Avg Infiltration Rate:	1.18 in/hr	5. FOS:	: 1
6. Infiltration Rate Used for Design:	0.63 in/hr		

7.	Separation distance between the BMP bottom and bedrock:	N/A	feet
8.	Separation distance between the BMP bottom and seasonal high-water table:	N/A	feet
9.	Comments :	Double Ring Infiltration FOS: 2 Percolation Test FOS: 3	

INFILTRATION INFORMATION			
BMP ID: SS-3		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed: 6			
2. Method(s) used for infiltration testing:		Double Ring Infiltration, Percolation Test	
3. Test Pit Identifiers (from PCSM Plan Drawings):		TP-32, TP-33, TP-34, TP-35, TP-36, TP-37	
4. Avg Infiltration Rate:	1.16 in/hr	5. FOS:	: 1
6. Infiltration rate used for design:	0.53 in/hr		
7. Separation distance between the BMP bottom and bedrock:	N/A feet		
8. Separation distance between the BMP bottom and seasonal high-water table:	N/A feet		
9. Comments: Double Ring Infiltration FOS: 2 Percolation Test FOS: 3			
BMP ID: SS-4		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed: 3			
2. Method(s) used for infiltration testing:		Double Ring Infiltration, Percolation Test	
3. Test Pit Identifiers (from PCSM Plan Drawings):		TP-38, TP-39, TP-40	
4. Avg Infiltration Rate:	1.06 in/hr	5. FOS:	: 1
6. Infiltration Rate Used for Design:	0.60 in/hr		
7. Separation distance between the BMP bottom and bedrock:	N/A feet		
8. Separation distance between the BMP bottom and seasonal high-water table:	N/A feet		
9. Comments: Double Ring Infiltration FOS: 2 Percolation Test FOS: 3			
BMP ID: SS-5		☒ Soil/geologic test results are attached.	
1. No. of infiltration tests completed: 3			
2. Method(s) used for infiltration testing:		Double Ring Infiltration, Percolation Test	
3. Test Pit Identifiers (from PCSM Plan Drawings):		TP-27, TP-28, TP-99	
4. Avg Infiltration Rate:	1.33 in/hr	5. FOS:	: 1
6. Infiltration Rate Used for Design:	0.87 in/hr		

7.	Separation distance between the BMP bottom and bedrock:	N/A	feet
8.	Separation distance between the BMP bottom and seasonal high-water table:	N/A	feet
9.	Comments :	Double Ring Infiltration FOS: 2 Percolation Test FOS: 3	

7.	Separation distance between the BMP bottom and bedrock:	feet
8.	Separation distance between the BMP bottom and seasonal high-water table:	feet
9.	Comments :	

STORMWATER ANALYSIS – PEAK RATE

Surface Water Name: **Big Spring Creek**

Discharge Point(s): **001**

1. ☐ The design standard is based on rate requirements in an Act 167 Plan approved by DEP within the past five years.
2. ☒ The design standard is based on managing the net change for 2-, 10-, 50-, and 100-year/24-hour storms.
3. ☐ An alternative design standard is being used.
4. ☐ A printout of DEP's PCSM Spreadsheet – Rate Worksheet is attached.
5. ☒ Alternative rate calculations are attached.
6. Identify precipitation amounts. Source of precipitation data: **NOAA**

2-Year/24-Hour Storm: **2.79** 10-Year/24-Hour Storm **4.06**

50-Year/24-Hour Storm: **5.83** 100-Year/24-Hour Storm **6.82**

7. Report peak discharge rates, pre- and post-construction (without BMPs), based on a time of concentration analysis.

Design Storm	Pre-Construction Peak Rate (cfs)	Post-Construction Peak Rate (cfs)	Difference (cfs)
2-Year/24-Hour	92.46	272.22	179.76
10-Year/24-Hour	206.92	452.87	245.95
50-Year/24-Hour	388.09	736.48	348.39
100-Year/24-Hour	684.56	899.55	214.99

8. Identify all BMPs used to mitigate peak rate differences and provide the requested information.

BMP ID	Inflow to BMP (cfs)				Outflow from BMP (cfs)			
	2-Yr	10-Yr	50-Yr	100-Yr	2-Yr	10-Yr	50-Yr	100-Yr
See Attached BMP Rate Table								

9. Report peak rates for pre-construction and post-construction with BMPs and identify the differences.

Design Storm	Pre-Construction Peak Rate (cfs)	Post-Construction Peak Rate (with BMPs) (cfs)	Difference (cfs)
2-Year/24-Hour	92.46	16.77	-75.69
10-Year/24-Hour	206.92	68.37	-138.55
50-Year/24-Hour	388.09	217.67	-170.42
100-Year/24-Hour	684.56	442.53	-242.03

STORMWATER ANALYSIS – WATER QUALITY

☒ A printout of DEP's PCSM Spreadsheet – Quality Worksheet is attached for all surface waters receiving discharges.

LONG-TERM O&M

Describe the long-term operation and maintenance (O&M) requirements for each selected PCSM BMP.

BMP ID	O&M Requirements
	See PCSM Plan Set, C-706, 'Ownership, Operations & Maintenance Notes'

PCSM PLAN DEVELOPER

☒ I am trained and experienced in PCSM methods.

☒ I am a licensed professional.

Name: Justin Doty
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 License No.: PE080613
 Exp. Date: 09-30-2025

PCSM Plan Developer Signature

Date

BMP Rate Table								
BMP ID	Inflow to BMP (cfs)				Outflow from BMP (cfs)			
	2 - Yr	10 - Yr	50 - Yr	100 - Yr	2 - Yr	10 - Yr	50 - Yr	100 - Yr
P-1	26.15	46.81	76.54	93.23	0.16	1.20	8.33	19.03
SS-1	35.09	51.44	74.13	86.81	0.13	0.84	5.07	7.23
P-2	11.68	24.99	45.73	57.82	0.00	0.37	4.35	6.98
SS-2	31.06	47.94	71.15	84.02	10.91	20.76	35.38	42.14
P-3	28.58	51.15	83.63	101.87	0.16	1.07	5.57	8.98
SS-3	39.16	59.70	87.95	103.63	0.00	0.00	3.13	8.29
SS-4	11.45	16.78	24.18	28.32	0.13	1.76	4.43	10.16
P-4	5.59	13.43	26.21	33.85	0.00	0.07	1.77	3.80
SS-5	14.20	22.51	33.97	40.32	0.00	0.00	0.15	1.16
SS-6	45.03	71.38	107.71	127.84	0.00	1.98	9.21	18.56
P-5	5.02	10.85	19.67	24.87	0.00	0.02	0.14	0.19
SS-7	11.45	16.78	24.18	28.32	0.14	1.04	7.60	13.36
P-6	8.80	18.39	33.30	41.98	0.07	1.37	2.98	3.62
P-7	9.19	15.97	25.48	30.81	0.00	0.00	0.04	0.91