8000-PM-OOGM0006 9/2018 Notice of Intent



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER PROGRAMS OFFICE OF OIL AND GAS MANAGEMENT

OFFICIAL USE ONLY
ID #
Date Received
AUTH
SITE
CLNT
APS
Fee
Check No
Check Date

NOTICE OF INTENT (NOI) FOR COVERAGE UNDER THE EROSION AND SEDIMENT CONTROL GENERAL PERMIT (ESCGP-3) FOR EARTH DISTURBANCE ASSOCIATED WITH OIL AND GAS EXPLORATION, PRODUCTION, PROCESSING, OR TREATMENT OPERATIONS OR TRANSMISSION FACILITIES

READ	THE	INSTRUCT	FIONS	PROVIDED	IN THIS	PERMIT	APPLICATION	PACKAGE	BEFORE	COMPLETING	THIS
FORM	. PLE/	ASE PRINT	OR T	YPE INFORM	IATION	IN BLACK	OR BLUE INK.				

SECTION A. APPLICATION TYPE

Check one:

MAJOR MODIFICATIONS (Provide ESCGP number)

ESG010019001

PHASED (check only if applicable; *note: Most projects are not submitted as phased projects*)

Check one: EXPEDITED 🗌

STANDARD 🖂

If an Expedited Review Process being requested, be advised that the Expedited Review is not available for all projects. Refer to Section D - Expedited Review Process of the ESCGP-3 NOI Instructions to determine if the project is eligible.

SECTION B. CLIENT INFORMATION					
Applicant's Last Name (If applicable)	Firs	First Name MI		Telephone No. 732-938-1169	
Valori	Ma	rk			
Organization Name or Registered Fictitious Name Adelphia Gateway, LLC	Telephone N	0.			
DEP Client ID No.					
Headquarters Mailing Address	City	1		State	ZIP Code
1415 Wyckoff Road	Wall			NJ	07719
Email Address mvalori@njresources.com					
Co-Applicant's Last Name (If applicable)		First Name MI		Telephone No.	
Organization Name or Registered Fictitious Name					0.
Address		City		State	ZIP Code
Email Address					

		SECTION C. SI	TE INFORMATION		
Is there an existing	ESCGP associated w	rith this site? 🔀 Yes	🗌 No If yes, Permit I	No. <u>ESG0100</u>)19001
Has a well permit a	oplication been submi	tted for this site?	Yes 🛛 No If yes, Per	rmit No	
Does this site have	a 911 address? 🗌 Ye	es 🛛 No If yes, pro	vide site location addre	ess.	
Site Name					
see attachment on r	next page				
Site Location			Site No. (if another p	ermit has bee	en issued for the site)
see attachment on r	next page			T	1
Site Location – City				State	ZIP Code
see attachment on r					
Detailed Written Dir	ections to Site				
see attachment on r	next page				
Primary Location	County	Municipality		City	Boro Twp.
	see attachment	see attachment on			
		SECTION D. EX	PEDITED REVIEW		
I. Expedited Rev	iew Eligibility				
			ace water with an exis		🛛 Yes 🗌 No
			lity pursuant to Chap I value wetland in acco		
with 25 Pa.	Code § 105.17, or in t	the watershed of an	impaired surface wate		
	f the impairment is ide				
2. Will the proj	ect in which the well p	bad will be constructe	ed be in or on a floodpl	ain?	🗌 Yes 🛛 No
			located on land know as defined in Section		🗌 Yes 🛛 No
	S. § 6026.103?	egulated substances		103 01	
4. Will natural	ly occurring geologic	formations or soil of	conditions provide haz	ards to	🗌 Yes 🛛 No
the project of	or surrounding enviror		otential to cause or co		
-	when disturbed?		he contract of the f	11.4.0	
	•		the applicant or the fac	iiity?	
Is the project	ct a transmission proje	ect?			🗌 Yes 🛛 No

Site #	Site Name	Site Address	Latitude	Longitude	City	State	Zip Code	County	Municipality	
1	Quakertown Compressor Station	Unknown	40°24'15.39"N	75°20'53.13"W	Quakertown	Pennsylvania	18951	Bucks	Richland Township & West Rockhill Township (split)	From Allentown Road & Camp Ro Head east on Camp Rock Hill Rd t Continue onto Scholls School Rd Turn right onto Rich Hill Rd appro Turn left and travel approximatel Destination will be on the right
2	Skippack Pike Meter Station	Unknown	40°14'32.70"N	75°26'48.26"W	Schwenksville	Pennsylvania	19473	Montgomery	Skippack Township	From West Skippack Pike & Cross Head northwest on PA-73 W/W S Destination will be on the right
3	Schuylkill River Blowdown	Unknown	40° 9'38.76"N	75°31'42.05"W	Spring City	Pennsylvania	19475	Chester	East Pikeland Township	From Cromby Road & Township I Head north approximately 400' c Turn left into private drive at Cro Travel approximately 875' along Turn left and travel approximatel Turn right onto schuylkill River Tr Continue approximately 3,625' Destination will be on the right
4	Cromby Blowdown	Unknown	40° 9'7.01"N	75°31'58.89"W	Phoenixville	Pennsylvania	19460	Chester	East Pikeland Township	From Cromby Road & Township I Head north approximately 400' c Turn left into private drive at Cro Travel approximately 875' along Turn left and travel approximatel Destination will be on the right
5	French Creek Blowdown	Unknown	40° 8'0.21"N	75°32'56.35"W	Phoenixville	Pennsylvania	19460	Chester	East Pikeland Township	From Kimberton Rd & Powder M Head east approximately 125' Turn left and travel approximate Destination will be directly ahead
6	Mainline Valve 2	Unknown	40° 1'49.95"N	75°35'1.78"W	Malvern	Pennsylvania	19355	Chester	East Whiteland Township	From Lincoln Highway & Phoenix Head south on Phoenixville Pike f Turn left into private drive Travel approximately 515' Destination will be on the left
7	Chester Creek Blowdown	Unknown	39°55'54.06"N	75°30'40.35"W	Glen Mills	Pennsylvania	19342	Delaware	Thornbury Township	From Creek Road & Locksley Roa Head south on Locksley Rd appro Turn right onto private drive Travel approximately 1,600' Destination will be on the right
8	Transco Meter Station	Unknown	39°49'7.46"N	75°26'5.59"W	Marcus Hook	Pennsylvania	19061	Delaware	Lower Chichester Township	From Naamans Road and Ridge R Head northeast on Ridge Rd towa Turn left onto private drive (Fed Travel approximately 200' Destination will be on the left
9	Marcus Hook Compressor Station	Unknown	39°48'53.17"N	75°26'19.12"W	Marcus Hook	Pennsylvania	19061	Delaware	Lower Chichester Township	From Naamans Road and Ridge F Head northeast on Ridge Rd towa Destination will be on the Right

Directions To Site

Rock Hill Road Rd toward Schukraft Rd 1.2 mi Rd approximately 1,125' proximately 525' Itely 1,250'

ross Road

N Skippack Pike toward Cressman Rd 2.5 mi

ip Line Road

on Cromby Rd

Cromby Station

ng private drive

tely 600' to west gravel parking lot of Cromby Station

^r Trail

ip Line Road

)' on Cromby Rd

Cromby Station

ng private drive

tely 600' to west gravel parking lot of Cromby Station

r Mill Dr

tely 1,500' through private property

ead

nixville Pike <e toward Mystic Ln approximately 2,900'

Road

proximately 415'

<u>e Road</u> oward Virginia Ave approximately 3,700' ed Ex Drive)

<u>e Road</u> oward Virginia Ave approximately 1,900' Г

If yes to any of the above questions the project is not eligible for Expedited Rev Expedited Review, all the following items must be completed.	view; If the project is eligible for
II. Expedited Review Process	
 Is the technically and administratively complete and accurate NOI packa prepared and certified by a licensed professional? 	ge 🗌 Yes 🗌 No
 Are E&S and PCSM/Site Restoration Plan drawings and narrative prepared a sealed by a licensed professional? (Include interim restoration details wh needed) 	
 Include a Resource Delineation Report and answer the following questions: (If then skip to #4. If the answer to a. is "No" the applicant must answer "Yes" to through d. to be eligible for expedited review.) 	
a. Were all wetland resources delineated during the growing season?	🗌 Yes 🗌 No
b. If not during the growing season, was a follow-up visit conducted during t growing season to verify/adjust boundaries and look for potentially miss resources?	
c. Was a quality assurance field review conducted at a later date by independent qualified wetland professional to verify boundaries and look potentially missed resources? (If yes, attach Quality Assurance Field Revie Report)	for
 Was a Jurisdictional Determination (JD) or Preliminary JD conducted by t US Army Corps of Engineers on the whole project? (If yes, attach Prelimina or Jurisdictional Determination Report) 	
4. If applicable, have you included PNDI clearance letters or other documentati from applicable resource agencies?	on 🗌 Yes 🗌 No
5. If the project site contains, is along, or within 100 feet of a river, stream, cree lake, pond or reservoir, will you establish new or preserve existing riparian fore buffer at least 100 feet in width between the top of streambank or normal por elevation of a lake, pond or reservoir and areas of earth disturbances.	est
If no, will a waiver be obtained?	
6. Name of Licensed Professional	
Company	
Address	
Phone	

distur permi	pproved LOD for Phase 1 was 13.9 AC which include bance per the permit approval. The remaining 4 out of t approval.	the 13 site, are n	ot included within this amendment, t	otals 0.50 AC of disturbance per the
	he updates noted in the Project Description below, the bed acreage of 4.51 AC . Therefore, the revised Total	Project Area/ Proj	ect Site/ Total Disturbed Area for all	
	SEC	TION E. PROJI	ECT INFORMATION	
	1. Total Project Area/Project Site (Ac):	18.36	Total Disturbed Area (Ac):	17.86
	Increased disturbed acreage (for permit modifica	tion only)		4.40
	Fee: (For additional information regarding f	ees, refer to N	OI Instructions #3 Permit NOI	Filing \$ 900
	2. Project Name: Adelphia Gateway Project			
	3. Project Type (Check all that apply)			
	☐ Oil/Gas Well ¹		Transmission Facility	
	Gathering Facility		Processing Facility	
	Treatment Facility		Well Development Impour	adment
	Compressor Station		Non-FERC regulated Trar	
			Ground/Surface Water Wi	-
	Storage Field Facility			
Droject	¹ If Oil/Gas Well; is the well conventional or uno Description	conventional?	Conventional	Unconventional
Quaker equipm disturba Compre Skippa Skippa Schulky Cromby gravel o French drivewa Main Li Wain Li Cheste stablize Transco and cor to 1.088 Marcus		rage increased fro PCSM BMP was ro 3 AC) due to additi AC to 0.365 AC (- nditions. C to 1.454 AC (+0 e. The entire LOD 885 AC (+0.248 AC itions. 3 AC to 0.640 AC OD will be restore 17 AC (+0.033 AC C to 0.526 AC (+0. thing conditions. ased from 0.10 AC sed due to conflict pipe and addition erage increased from 6.2	m 0.326 AC to 0.390 AC (+0.064 AC evised due to conflict with proposed onal and revised temporary workspa- +0.098 AC). The LOD was increased .523 AC). The LOD was increased to will be restored to existing condition C). The LOD was increased to exten (+0.052 ac). The LOD was decreased to existing conditions.). The LOD was increased to exten (432 AC). The LOD was increased to extend to 0.15 AC (+0.05 AC) due to addit with proposed equipment buildings. al workspace required for the tap fro om 1.16 AC to 1.22 AC (+0.06 AC) 4 AC to 6.34 AC (+0.10 AC) due to	equipment buildings. The limit of aces adjacent to the Quakertown d to extend the driveway access to to shift the access along the existing hs. d for site access along a stabilized ed to provide site access from a d the site for access. The entire LOD b extend the site access along a ion of several equipment buildings . The LOD increased from 0.859 AC om Ridge Rd and along Fed Ex Dr. due to addition of several equipment
	Provide the date of pre-application meeting (if o	conducted with the	ne Department) 2/21/2019	
	 Provide the latitude and longitude coordin degrees and North American Datum 198 accuracy. For linear projects provide the pr 	3. The coordina		
	Latitude (DD) 39.8147	Lo	ngitude (DD) - 75.4383	
	Latitude (DD) 40.7933	Lo	ngitude (DD) - 75.1313	
	Horizontal Collection Method: 🛛 🖾 GPS	Interpolate	ed from U.S.G.S. Topographic M	ap 🗌 DEP's eMAP
	5. U.S.G.S. 7.5 min. topographic quadrangle	Name Quakerto	wn, Collegville, Phoenixville, Ma	lvern, West Chester, Marcus
	Hook (Include a copy of the project area on the 7.5 min qua	d map)	efer to PCSM Report, Appe	ndix A

	oject be conducted as a phased permit proj ude Master Site Plan Estimated Timetable		☐ No ojects. □	Additional she	et(s) attached.	
Phase No. or Name	Description	Total Area	Disturbed Area	Start Date	End Date	
1	Adelphia Gateway	18.36 AC	18.36 AC	09/15/20	06/01/21	
2A	Tilghman & Parkway Laterals (Transco to DE/PA State Line)	0.15 AC	0.15 AC	09/15/20	06/01/21	
2B	Tilghman Lateral	24.76 AC	24.76 AC	01/01/21	06/01/21	
The existing us Skippack Pike	ig and previous land use for a minimum of t se for the Quakertown Compressor Station Meter Station, Cromby Blowdown, Mainlir I and grass.	is a partially de	eveloped mete	Ū		
to be distri	se for the Quakertown Compressor Station buted is primarily meadow.		·	-		
Marcus Hook	Compressor Station is a fully developed cor	mpressor site t	hat is primarily	y gravel in exis	sting conditions.	
	utants: Will the stormwater discharge conta	•	substances ot	her than sedim	ient? 🗌 Yes 🖾 No	
lf yes, exp	lain and provide any available quantitative of	data.				
	chemicals, solvents, other hazardous was or will Horizontal Directional Drilling (HDD) a			tored on site o	during earth disturbance	
Yes 🛛 N during ea	 If yes, Preparedness, Prevention rth disturbance. See NOI Instructions, E. 					
Yes 🛛 N	ect in the watershed of an impaired surface o (If yes, show how the project will r pelow, and E.10 of NOI instructions.)			•		
	1. Are there potentially hazardous naturally occurring geological or soil conditions in any portion of the project or surrounding area? Yes □ No ⊠					
	he potentially hazardous geologic or soil co e proposed earth disturbance activities?	onditions have	the potential t	to cause or co	ntribute to pollution as a	
lf no, provi	de an explanation. Refer to F	PCSM Narrat	ive, Section	VII		
If yes, Geo	ologic Hazard Mitigation Plan must be attacl	hed and explai	n where in thi	s application d	etails are provided.	
Yes 🖂	ct 14 Municipal Notification and proof of rec No	•				
13. Has the P	NDI receipt been attached to the NOI?					
	No [] (If not, the NOI is not complete,	see E.13 and	l #5 PNHP in	the NOI Ins	tructions for additiona	
	E&S Plan and PCSM/SR Plan been planned No □	d and designed	I to be consist	tent?		
	ting and/or proposed Riparian Forest Buffer	s been identifie	ed?			
	N/A \boxtimes (If yes, they must be shown on the			SM/SR Plans.)	1	
				-		
	legradation implementation requirements fo No					

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 17. Has the seasonal high groundwater level been identified and 20-inch separation established at all excavation locations for pits for conventional operations and Well Development Impoundments for unconventional operations? Yes □ No □ N/A □ 						
18. Receiving Waters	Chapter 93, Designated Use Stream Classification	Chapter 93, Existing Use Stream Classification				
Tohickon Creek	☐ HQ ☐ EV ⊠ Other <u>TSF</u>	☐ HQ ☐ EV ⊠ Other <u>TSF</u>				
	Siltation-impaired	Siltation-impaired				
Perkiomen Creek	☐ HQ ☐ EV ⊠ Other <u>WWF, MF</u>	HQ EV 🛛 Other <u>WWF, MF</u>				
	Siltation-impaired	Siltation-impaired				
Stony Run	HQ 🗌 EV 🖾 Other <u>HQ-TSF, MF</u>	HQ 🗌 EV 🖂 Other <u>HQ-TSF, MF</u>				
	Siltation-impaired	Siltation-impaired				
Chester Creek	☐ HQ ☐ EV ⊠ Other <u>TSF, MF</u>	HQ EV 🛛 Other <u>TSF, MF</u>				
	Siltation-impaired	Siltation-impaired				
Secondary Receiving Water	Secondary Chapter 93, Designated Use	Secondary Existing Use				
Name of Municipal or Private Se	parate Storm Sewer Operator, if applicable.					
Non-Surface Receiving Water: (include off-site discharges)						

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 17. Has the seasonal high groundwater level been identified and 20-inch separation established at all excavation locations for pits for conventional operations and Well Development Impoundments for unconventional operations? Yes □ No □ N/A □ 					
18. Receiving Waters	Chapter 93, Designated Use Stream Classification	Chapter 93, Existing Use Stream Classification			
Valley Creek	☐ HQ ☐ EV ⊠ Other <u>CWF, MF</u>	☐ HQ ☐ EV ⊠ Other <u>CWF, MF</u>			
	Siltation-impaired	Siltation-impaired			
Naamans Creek	☐ HQ ☐ EV ⊠ Other <u>WWF, MF</u>	☐ HQ ☐ EV ⊠ Other <u>WWF, MF</u>			
	Siltation-impaired	Siltation-impaired			
French Creek	□ HQ □ EV ⊠ Other <u>TSF, MF</u>	☐ HQ ☐ EV ⊠ Other <u>TSF, MF</u>			
	Siltation-impaired	Siltation-impaired			
Schuylkill River	□ HQ □ EV ⊠ Other <u>WWF, MF</u>	🗌 HQ 🗌 EV 🖾 Other <u>WWF, MF</u>			
	Siltation-impaired	Siltation-impaired			
Secondary Receiving Water	Secondary Chapter 93, Designated Use	Secondary Existing Use			
Name of Municipal or Private Separate Storm Sewer Operator, if applicable.					
Non-Surface Receiving Water: (include off-site discharges)					

SECTION F. EROSION AND SEDIMENT CONTROL (E&S) PLAN

See the attached Instructions for additional guidance with E&S Plans

Erosion and Sediment Control Plan BMPs should be designed to minimize accelerated erosion and sedimentation through limiting the extent and duration of earth disturbance, protection of existing drainage and vegetation, limiting soil compaction and controlling the generation of increased runoff. The Department recommends the use of the *Pennsylvania Erosion & Sedimentation Pollution Control Program Manual (E&S Manual)* (363-2134-008) to achieve this goal. The E&S Plan must meet the requirements of Pa. Code § 102.4(b) and submitted with the NOI. Also, see section 2. of the NOI instruction for detailed information on completing the E&S plan and additional requirements.

a. E&S Plan Summary

Provide a summary of proposed E&S BMPs and their performance to manage E&S for the project.

The following measures are aimed at controlling accelerated erosion and sedimentation during construction. Temporary erosion and sediment control will be accomplished by utilizing Best Management Practices, such as Rock Construction Entrance, Compost Filter Sock, Inlet Protection, Compost Sock Washout Facility, Pumped Water Filter Bags, Erosion Control Blanket, Temporary Wetland Crossings and Rock Filters. The extent and duration of earth disturbance is to be minimized to limit impacts of erosion and sedimentation to neighboring and downstream properties.

For project site in HQ watersheds, the E&S Desgin includes ABACT measures to ensure limited erosion and sedimentation.

b. E&S Plan BMP Design

Check those that apply:

E&S Plan is designed using BMPs in the E&S Manual.

E&S Plan is designed using an alternative BMP or design standard approved by DEP.

Note: NOI packages submitted with alternate BMPs not approved by the Department will be returned to the Applicant.

C.	Do you have any information regarding riparian buffer which differs from Section G, Riparian Buffer? Yes □ No ⊠
	Explain:
d.	Thermal Impacts Analysis
	Explain how thermal impacts associated with this project were avoided, minimized, or mitigated.
	Thermal impacts associated with the project will be minimized and/or mitigated through the incorporation of various BMPs, which include a subsurface and subsurface MRC basins and a subsurface infiltration bed. Runoff from the impervious areas will be directed to the BMPs where the travel time is increased to infiltrate and/or store runoff, reducing the quantity and temperature of the runoff.
	The surface basin at Marcus Hook Compressor Station will be vegetated. Landscaping and vegetative cover will mimic natural ecosystems, resulting in a system that is resistant to climatic stresses. Additionally, the basin's outlet structure is designed to promote the slow release of outflow to the surface waters.
	The subsurface basin at Transco Meter Station will temporarily store stormwater runoff beneath the surface, away from direct sunlight and will promote infiltration which will release water into the groundwater instead of discharging to the surface waters.
	The subsurface basin at Quakertown Compressor Station will temporarily store stormwater runoff beneath the surface, away from direct sunlight and will promote the slow release of outflow to the surface waters.
	At the main line valve sites, thermal impacts will be avoided by site restoration activities. The disturbed areas will be restored and seeded as soon as practicable and /or directing runoff to vegetated areas to reduce the temperature of runoff prior to discharge into the streams.
e.	Off-Site Discharge Analysis
	Does the activity propose any off-site discharges to areas other than surface waters? 🛛 Yes 🗌 No If yes, it is the applicant's responsibility to ensure that they have legal authority for any off-site discharge to neighboring properties.
	The applicant must provide a demonstration in both E&S and PCSM/SR plans that the discharge will not cause erosion, damage, or a nuisance to off-site properties.

	SECTION G. RIPARIAN BUFFER
1.	Will you be protecting, converting or establishing a voluntary riparian forest buffer as part of this project? See No If yes, as part of the PCSM/SR Plan, provide a Buffer Management Plan.
2.	Will proposed earth disturbance activities be conducted in an EV or HQ watershed AND within 150 feet of a perennial or intermittent river, stream, or creek, or lake, pond, or reservoir? \Box Yes \boxtimes No
	If no, proceed to the next section/module.
3.	Does this project qualify for an exception (see § 102.14(d)(1))? Yes No
	If yes, indicate below the type of project for which the exception applies by marking the appropriate box.
	Oil and gas activities for which site reclamation or restoration is part of the permit authorization in Chapter 78 and 78a.
	Road maintenance activities.
	☐ The repair or maintenance of existing pipelines and utilities.
	Other (see §102.14(d)(1))
	If exceptions are checked, explain how existing riparian buffer will be undisturbed to the extent practicable. Provide a demonstration that the requirements of §102.14(b) are met, or provide the necessary information to request a riparian buffer waiver.
4.	Are you requesting a riparian buffer waiver for this project (see § 102.14(d)(2))? Yes No
	If yes, indicate below the type of project for which you are requesting a waiver by marking the appropriate box.
	Linear project that may include pipelines, public roadways, rail lines, or utility lines.
	Project is of a temporary nature where the site will be fully restored to its preexisting conditions during the ESCGP permit term.
	Project where compliance with mandatory riparian buffers is not appropriate or feasible due to site characteristics or existing structures at the project site.
	Other (see §102.14(d)(2)):
	If waivers are checked, explain how existing riparian buffers will be undisturbed to the extent practicable.
	Note: If "Yes" to #2 AND "No" to #3 and #4, provide an attachment to demonstrate how the requirements of §102.14 are met.
	Refer to PCSM Report, Section XII

SECTION	H. POST CO	NSTRUCTION STORMWATER MAN See NOI Instructions for additi	• •		SR) PLAN
constructio proposed in for conver <i>Manual</i>) (3	PCSM/SR BMPs should be designed to use natural measures to eliminate pollution, infiltrate runoff, not require extensive construction/maintenance, promote pollutant reduction, and preserve the integrity of stream channels. All PCSM/SR BMPs proposed in the PCSM/SR Plan must be designed in accordance with Ch. 102, Ch. 78a for unconventional operations, Ch. 78 for conventional operations and the <i>Pennsylvania Stormwater Best Management Practices Manual (Stormwater BMP Manual)</i> (363-0300-002). If alternate design criteria are utilized for the proposed project, they must have prior approval by the Department, or the NOI Application will be returned to the Applicant.				
	ruction is com	pleted, how much of the entire disturt ⊠ All Partial None	oed area will be restored	d to meadow in good conditio	n or better,
	SM narrative toration plan.	and drawings for remaining impervio	us area. Also include a	map showing the proposed of	contours of
required by	/ subsection 'a	ages of the project prior to permit term a' to section 'g' for each stage (e.g. pa s areas). Upload a narrative for each a	artial restoration or char	iges to the amount of compare	
	EXAMPLE				
	Stage No	Stage Name	PCSM Plan	SR Plan	
	Stage 1	Phase 1: Adelphia Gateway		\boxtimes	
	Stage 2	Phase 2A: Tilghman & Parkway Laterals (PA/DE State line to Transco)			
	Stage 3	Phase 2B: Tilghman Lateral	\boxtimes	\boxtimes	
	Stage 4				
	Consistency In Act 167 Pla	Check those that apply. Site In? ⊠ Yes □ No Che	e: ester Creek Blowd	own	
🛛 The a	attached PCS	M/SR Plan is consistent with an applic	cable approved Act 167	Plan.	
•	-	for all approved Act 167 Stormwater	•		sary)
	Plan Name Creek Waters	Date Adopted shed June 2002		onsistency Letter Included	
onester			V	erification Report Included	\boxtimes
		letter is not required if a verification ther sub paragraph 1, 2, or 3 below.(NOI Instructions. The PCS	M/SR Plan
1. Act 167 Plan approvals on or after January 2005 – The attached PCSM/SR Plan, in its entirety, is consistent with all requirements pertaining to rate, volume, and water quality from an Act 167 Stormwater Management Plan approved by DEP on or after January 2005. Box 1 must be checked if a current, DEP approved Act 167 plan exists.					
2. The PCSM/SR Plan meets the standard design criteria from sections 102.8(g)(2) and (3) and the <i>Stormwater BMP Manual</i> . For projects involving oil and gas activities authorized by a permit issued under Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure, post construction stormwater management requirements are met for all areas that are restored to preconstruction conditions or to a condition of meadow in good condition or better. <i>[Note: PCSM plans must meet both the volume and rate requirements in the regulations, which are provided in the 2 sections mentioned in this paragraph].</i>					
3.					

PCSM/SR BMP Alternative Standards:	
Has the alternative BMP or design standard been approved by the Department?	
☐ Yes	
No – Do not submit the ESCGP-3 application and see Section (H) of the NOI Instructions cor BMP approval process.	cerning the alternative
Water Quality Compliance:	
Does the PCSM/SR plan comply with requirements for volume control? $igsquare$ Yes $\hfill \Box$ No	
If yes, is at least 90% of the disturbed area controlled by a PCSM BMP? $oxedsymbol{ imes}$ Yes $oxedsymbol{ imes}$ No	
If yes, do you have the Standard PCSM Worksheet # 10 attached to show water quality compliance h Yes No SITE RESTORATION ONLY - MEET SECTION 102.8(g)(2) a WORKSHEET #10, #12 & #13	ınd (3),
If no, attach Standard PCSM Worksheets # 12 and #13 to show water quality compliance has achieve	ed.
If PCSM/SR plan is not complying with the requirements for volume control, attach Standard PCSM and #13 to show water quality compliance has achieved.	Worksheets # 11, # 12
a. PCSM/SR Plan Summary	
Provide a summary of proposed BMPs and their performance to manage PCSM/SR for the project	ct.
All sites will be restored to pre-existing conditions. By limiting the disturbed areas, limiting disturbance and performing site restoration, these practices will eliminate the net change in r quality after construction.	
Check all that apply	
b. Do you have any information regarding riparian buffer which differs from what was submitted in t Buffer?	the Section G, Riparian
🗌 Yes 🛛 No	
Explain:	
c. Thermal Impacts Analysis	
Explain how thermal impacts associated with this project were avoided, minimized, or mitigated.	
Thermal impacts have been minimized by limiting the disturbed area to the maximum extent pra the extent of the disturbed area, vegetative clearing has been minimized. Thermal impacts will duration of disturbance and reseeding and restoring vegetative growth as soon as possible.	
d. Off-Site Discharge Analysis.	
_	🗌 No
If yes, it is the applicant's responsibility to ensure that they have legal authority for any off-site di properties.	scharge to neighboring
The Applicant must provide a demonstration in both the E&S and PCSM/SR Plans that the di erosion, damage, or a nuisance to off-site properties.	ischarge will not cause
See PCSM Narrative, Section XI, Page 15	

(See NOI Instructions for additional guidance with this section)

The remainder of this section (Summary Table for Calculation and Measurement Data) does not need to be completed for areas of projects involving oil and gas activities authorized by Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure which will be restored to meadow in good condition or better or existing conditions.

Watershed Name: Chester Creek			
Volume Control design storm frequency <u>N/A</u> Rainfall amount <u>N/A</u> inches	Pre-construction	Post Construction	Net Change
Impervious area (acres)	N/A	N/A	N/A
Volume of stormwater runoff (acre- feet) without planned stormwater BMPs	N/A	N/A	N/A
Volume of stormwater runoff (acre- feet) with planned stormwater BMPs		N/A	N/A
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change
1) 2-Year/24-Hour	N/A	N/A	N/A
2) 10-Year/24-Hour	N/A	N/A	N/A
3) 50-year/24-Hour	N/A	N/A	N/A
4) 100-year/24-Hour	N/A	N/A	N/A
f Summary Description of PCS			V

f. Summary Description of PCSM/SR BMPs SITE RESTORATION ONLY

In the lists below, check the BMPs identified in the PCSM Plan. The primary function(s) of the BMP listed in the functions column (infiltration/recharge; detention/retention; water quality). Additional functions may be added if applicable to that BMP. List the stormwater volume and area of runoff to be treated by each BMP type when calculations are required. If any BMP in the PCSM/SR Plan is not listed below, describe it in the space provided after "Other". A summary table with infiltration testing information (Attachment E, included in the NOI Instructions) must be submitted for all Bio-infiltration BMPs included in PCSM/SR plan.

For Rate control provide the volume of stormwater treated and acres treated for the 100-year/24-hour storm event.

For volume control and water quality provide the volume of stormwater treated and acres treated for the 2-year/24-hour storm event.

ВМР	Function(s)	Purpose(s)	Volume of stormwater treated	Acres treated
Site Restoration ONLY				
Restore Site to Meadow in Good Condition or Better, or Existing Conditions	Infiltration/Recharge Detention/WQ Treatment	🛛 VC 🖾 RC 🖾 WQ		
Bio-infiltration areas	Infiltration/Recharge			
Infiltration Trench				
Infiltration Bed		UVC RC WQ		
Infiltration Basin				
Rain Garden/ Bioretention		UVC RC WQ		
Infiltration Berm				

Natural Area Conservation	Infiltration/Recharge		
Streamside Buffer Zone		UVC RC WQ	
Wetland Buffer Zone			
Sensitive Area Buffer Zone		UVC RC WQ	
Pre-Construction Drainage Pattern Intact			
Stormwater Retention	Detention/Retention		
Constructed Wetlands		UVC RC WQ	
Wet Ponds		UVC RC WQ	
Retention Basin			
Sediment and Pollutant	Water Quality		
Removal	Treatment		
Vegetated Filter Strips			
Compost Filter Sock			
Detention Basins			
Access Road Design	Infiltration/Recharge		
Road Crowning		□VC □RC □WQ	
Ditches		🗌 VC 🗌 RC 🗌 WQ	
Turnouts			
Culverts			
Roadside Vegetated Filter Strips			
	Infiltration/Decharge		
Stormwater Energy Dissipaters	Infiltration/Recharge		
Level Spreaders			
Riprap Aprons			
Upslope Diversions			
Other			

Identify and list critical stages of implementation of the PCSM Plan for which a licensed professional or designee shall be present on site.

	-						
SECTION	SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) AND/OR SITE RESTORATION(SR) PLAN						
constructio proposed in for conven <i>Manual</i>) (3	See NOI Instructions for additional guidance with PCSM Plans PCSM/SR BMPs should be designed to use natural measures to eliminate pollution, infiltrate runoff, not require extensive construction/maintenance, promote pollutant reduction, and preserve the integrity of stream channels. All PCSM/SR BMPs proposed in the PCSM/SR Plan must be designed in accordance with Ch. 102, Ch. 78a for unconventional operations, Ch. 78 for conventional operations and the <i>Pennsylvania Stormwater Best Management Practices Manual (Stormwater BMP Manual)</i> (363-0300-002). If alternate design criteria are utilized for the proposed project, they must have prior approval by the Department, or the NOI Application will be returned to the Applicant.						
	ruction is com conditions?	oleted, how much of the entire disturl	oed area will be restored	to meadow in good conditio	n or better,		
	SM narrative a toration plan.	and drawings for remaining impervio	us area. Also include a	map showing the proposed o	contours of		
required by	v subsection 'a	ges of the project prior to permit term ' to section 'g' for each stage (e.g. pa areas). Upload a narrative for each a	artial restoration or chan	ges to the amount of compa			
	EXAMPLE						
	Stage No	Stage Name	PCSM Plan	SR Plan			
	Stage 1	Phase 1: Adelphia Gateway	\boxtimes	\boxtimes			
	Stage 2	Phase 2A: Tilghman & Parkway Laterals (PA/DE State line to Transco)		\boxtimes			
	Stage 3	Phase 2B: Tilghman Lateral	\boxtimes	\square			
	Stage 4						
Is there a	n Act 167 Plar	Check those that apply. n? ⊠ Yes □ No //SR Plan is consistent with an applic	cable approved Act 167	Site: Schuylkill River B Cromby Blowdow ^{Plan.} French Creek Blov	n		
Complete	e the following	for all approved Act 167 Stormwater	Management Plans. (Us	se additional sheets if necess	sary)		
Act 167 F	Plan Name	Date Adopted	C	onsistency Letter Included			
<u>Chester</u>	County-wide	March 27,2013	Ve	erification Report Included	\boxtimes		
Note: A consistency letter is not required if a verification report is provided. See NOI Instructions. The PCSM/SR Plan must satisfy either sub paragraph 1, 2, or 3 below. Check those that apply.							
1. Act 167 Plan approvals on or after January 2005 – The attached PCSM/SR Plan, in its entirety, is consistent with all requirements pertaining to rate, volume, and water quality from an Act 167 Stormwater Management Plan approved by DEP on or after January 2005. Box 1 must be checked if a current, DEP approved Act 167 plan exists.							
2.							

3. Alternative Design Standard – The attached PCSM/SR Plan was developed using approaches as provided in 102.8(g)(2)(iv) and 102.8(g)(3)(iii). Demonstrate/explain in the space provided below how this standard will be either more protective than what is required in 102.8(g)(2) and 102.8(g)(3) or will maintain and protect existing water quality and existing and designated uses.

PCSM/SR PMP Alternative Standards: Has the alternative BMP or design standard been approved by the Department? Yes No - Do not submit the ESCGP-3 application and see Section (H) of the NOI Instructions concerning the alternative BMP approval process. Water Quality Compliance: Does the PCSM/SR plan comply with requirements for volume control? Yes No If yes, is at least 90% of the disturbed area controlled by a PCSM BMP? Ne = No If yes, is at least 90% of the disturbed area controlled by a PCSM BMP? Yes No Yes No >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		
□ Yes □ Do not submit the ESCGP-3 application and see Section (H) of the NOI Instructions concerning the alternative BMP approval process. Water Quality Compliance: □ □ Does the PCSM/SR plan comply with requirements for volume control? □ Yes □ No If yes, is at least 90% of the disturbed area controlled by a PCSM BMP? □ Yes □ No If yes, do you have the Standard PCSM Worksheet # 10 attrached to show water quality compliance has achieved? □ West Standard PCSM Worksheet # 12 and #13 to show water quality compliance has achieved. If PCSM/SR Plan Summary ■ STE RESTORATION ONLY - MEET SECTION 102.8(y/30.4(y).Fer 102.8(n), WORKSHEET #13 AE BKOT APPLCABLE If PCSM/SR Plan Summary Provide a summary of proposed BMPs and their prejormance to manage PCSM/SR for the project. All sites will be restored to pre-existing conditions. By limiting the disturbed areas, limiting extent and duration of disturbance and performing site restoration, these practices will eliminate the net change in rate, volume and water quality after construction. Check all that apply □ PCSM BMPs □ SR BMPs ■ b. Do you have any information regarding riparian buffer which differs from what was submitted in the Section G, Riparian Buffer? □ Yes □ No Explain how thermal impacts associated with this project were avoided, minimized, or mitigated. Thermal impacts Analysis Explain how thermal impacts associated with this project were avoided, minimized, or mitigated. Thermal impacts analysis		
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BMP approval process. Water Quality Compliance: Does the PCSM/SR plan comply with requirements for volume control? Yes	∐ Yes	
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If yes, is at least 90% of the disturbed area controlled by a PCSM BMP? ☑ Yes □ No If yes, do you have the Standard PCSM Worksheet # 10 attached to show water quality compliance has achieved? □ Yes □ No □ STE RESTORATION ONLY - MEET SECTION 102.8(g); and (3) PF 102.8(n). If no, attach Standard PCSM Worksheets # 12 and #13 to show water quality compliance has achieved. If PCSM/SR plan is not complying with the requirements for volume control, attach Standard PCSM Worksheets # 11, # 12 and #13 to show water quality compliance has achieved. a. PCSM/SR Plan Summary Provide a summary of proposed BMPs and their performance to manage PCSM/SR for the project. All sites will be restored to pre-existing conditions. By limiting the disturbed areas, limiting extent and duration of disturbance and performing site restoration, these practices will eliminate the net change in rate, volume and water quality after construction. Check all that apply □ PCSM BMPs ☑ SR BMPs b. Do you have any information regarding riparian buffer which differs from what was submitted in the Section G, Riparian Buffer? □ Yes ☑ No Explain: c. Thermal Impacts Analysis Explain how thermal impacts associated with this project were avoided, minimized, or mitigated. Thermal impacts have been minimized by limiting the disturbed area to the maximum extent practicable. By minimizing the extent of the disturbed area, vegetative cleaning has been minimized. Thermal impacts will also be minimizing the duration of disturbance and reseeding and restoring vegetative growth as soon as possible. d. Off-Site Discharge Analysis. Does the activity propose any off-site discharges to areas other than surface waters? ☑ Yes □ No If yes, it is the applicant's responsibility to ensure that they have legal authority for any off-site discharge to neighboring properties. The Applicant must provide a demonstration in both the E&S and PCSM/SR Plans that the discharge will not cause erosion, damage, or a nuisance to off-site properties.	Water Qu	ality Compliance:
If yes, do you have the Standard PCSM Worksheet # 10 attached to show water quality compliance has achieved? If yes, in No >SITE RESTORATION ONLY - MEET SECTION 102.46(j)(2) and (3), Per 102.46(j), Per 104.47(j), Per 104.47(j	Does the	PCSM/SR plan comply with requirements for volume control? 🛛 Yes 🗌 No
 Yes ⊠ No	If yes, is a	t least 90% of the disturbed area controlled by a PCSM BMP? $oxedsymbol{\boxtimes}$ Yes $oxedsymbol{\square}$ No
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Does the activity propose any off-site discharges to areas other than surface waters? Yes No If yes, it is the applicant's responsibility to ensure that they have legal authority for any off-site discharge to neighboring properties. The Applicant must provide a demonstration in both the E&S and PCSM/SR Plans that the discharge will not cause erosion, damage, or a nuisance to off-site properties.	Thern the ex	al impacts have been minimized by limiting the disturbed area to the maximum extent practicable. By minimizing tent of the disturbed area, vegetative clearing has been minimized. Thermal impacts will also be minimizing the
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See PCSM Narrative, Section XI, Page 15		
	See	PCSM Narrative, Section XI, Page 15

(See NOI Instructions for additional guidance with this section)

The remainder of this section (Summary Table for Calculation and Measurement Data) does not need to be completed for areas of projects involving oil and gas activities authorized by Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure which will be restored to meadow in good condition or better or existing conditions.

Watershed Name: Schuylkill River	Watershed Name: Schuylkill River					
Volume Control design storm frequency <u>N/A</u> Rainfall amount <u>N/A</u> inches	Pre-construction	Post Construction	Net Change			
Impervious area (acres)	N/A	N/A	N/A			
Volume of stormwater runoff (acre- feet) without planned stormwater BMPs	N/A	N/A	N/A			
Volume of stormwater runoff (acre- feet) with planned stormwater BMPs		N/A	N/A			
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2) 10-Year/24-Hour	N/A	N/A	N/A			
3) 50-year/24-Hour	N/A	N/A	N/A			
4) 100-year/24-Hour	N/A	N/A	N/A			
f. Summary Description of PCS	f. Summary Description of PCSM/SR BMPs SITE RESTORATION ONLY					

f. Summary Description of PCSM/SR BMPs SITE RESTORATION ONLY

In the lists below, check the BMPs identified in the PCSM Plan. The primary function(s) of the BMP listed in the functions column (infiltration/recharge; detention/retention; water quality). Additional functions may be added if applicable to that BMP. List the stormwater volume and area of runoff to be treated by each BMP type when calculations are required. If any BMP in the PCSM/SR Plan is not listed below, describe it in the space provided after "Other". A summary table with infiltration testing information (Attachment E, included in the NOI Instructions) must be submitted for all Bio-infiltration BMPs included in PCSM/SR plan.

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For volume control and water quality provide the volume of stormwater treated and acres treated for the 2-year/24-hour storm event.

ВМР	Function(s)	Purpose(s)	Volume of stormwater treated	Acres treated
Site Restoration ONLY				
Restore Site to Meadow in Good Condition or Better, or Existing Conditions	Infiltration/Recharge Detention/WQ Treatment	🛛 VC 🖾 RC 🖾 WQ		
Bio-infiltration areas	Infiltration/Recharge			
Infiltration Trench				
Infiltration Bed		UVC RC WQ		
Infiltration Basin		🗌 VC 🗌 RC 🗌 WQ		
Rain Garden/ Bioretention		🗌 VC 🗌 RC 🗌 WQ		
Infiltration Berm				

Natural Area Conservation	Infiltration/Recharge		
Streamside Buffer Zone		□VC □RC □WQ	
Wetland Buffer Zone		□VC □RC □WQ	
Sensitive Area Buffer Zone		□VC □RC □WQ	
Pre-Construction Drainage Pattern Intact			
Stormwater Retention	Detention/Retention		
Constructed Wetlands		□VC □RC □WQ	
Wet Ponds		□VC □RC □WQ	
Retention Basin			
Sediment and Pollutant	Water Quality		
Removal	Treatment		
Vegetated Filter Strips			
Compost Filter Sock			
Detention Basins			
Access Road Design	Infiltration/Recharge		
Road Crowning		🗌 VC 🗌 RC 🗌 WQ	
Ditches			
Turnouts			
Culverts			
Roadside Vegetated Filter Strips			
Stormwater Energy Dissipaters	Infiltration/Recharge		
Level Spreaders	-		
☐ Riprap Aprons			
Upslope Diversions		□VC □RC □WQ	
Other		□VC □RC □WQ	

Identify and list critical stages of implementation of the PCSM Plan for which a licensed professional or designee shall be present on site.

(See NOI Instructions for additional guidance with this section)

The remainder of this section (Summary Table for Calculation and Measurement Data) does not need to be completed for areas of projects involving oil and gas activities authorized by Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure which will be restored to meadow in good condition or better or existing conditions.

Watershed Name: Stony Run	Watershed Name: Stony Run					
Volume Control design storm frequency <u>N/A</u> Rainfall amount <u>N/A</u> inches	Pre-construction	Post Construction	Net Change			
Impervious area (acres)	N/A	N/A	N/A			
Volume of stormwater runoff (acre- feet) without planned stormwater BMPs	N/A	N/A	N/A			
Volume of stormwater runoff (acre- feet) with planned stormwater BMPs		N/A	N/A			
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change			
1) 2-Year/24-Hour	N/A	N/A	N/A			
2) 10-Year/24-Hour	N/A	N/A	N/A			
3) 50-year/24-Hour	N/A	N/A	N/A			
4) 100-year/24-Hour	N/A	N/A	N/A			
f Summary Description of PCS			v			

f. Summary Description of PCSM/SR BMPs SITE RESTORATION ONLY

In the lists below, check the BMPs identified in the PCSM Plan. The primary function(s) of the BMP listed in the functions column (infiltration/recharge; detention/retention; water quality). Additional functions may be added if applicable to that BMP. List the stormwater volume and area of runoff to be treated by each BMP type when calculations are required. If any BMP in the PCSM/SR Plan is not listed below, describe it in the space provided after "Other". A summary table with infiltration testing information (Attachment E, included in the NOI Instructions) must be submitted for all Bio-infiltration BMPs included in PCSM/SR plan.

For Rate control provide the volume of stormwater treated and acres treated for the 100-year/24-hour storm event.

For volume control and water quality provide the volume of stormwater treated and acres treated for the 2-year/24-hour storm event.

ВМР	Function(s)	Purpose(s)	Volume of stormwater treated	Acres treated
Site Restoration ONLY				
Restore Site to Meadow in Good Condition or Better, or Existing Conditions	Infiltration/Recharge Detention/WQ Treatment	🛛 VC 🖾 RC 🖾 WQ		
Bio-infiltration areas	Infiltration/Recharge			
Infiltration Trench				
Infiltration Bed				
Infiltration Basin				
Rain Garden/ Bioretention				
Infiltration Berm				

Natural Area Conservation	Infiltration/Recharge		
Streamside Buffer Zone		□VC □RC □WQ	
Wetland Buffer Zone		□VC □RC □WQ	
Sensitive Area Buffer Zone		□VC □RC □WQ	
Pre-Construction Drainage Pattern Intact			
Stormwater Retention	Detention/Retention		
Constructed Wetlands		□VC □RC □WQ	
Wet Ponds		□VC □RC □WQ	
Retention Basin			
Sediment and Pollutant	Water Quality		
Removal	Treatment		
Vegetated Filter Strips			
Compost Filter Sock			
Detention Basins			
Access Road Design	Infiltration/Recharge		
Road Crowning		🗌 VC 🗌 RC 🗌 WQ	
Ditches			
Turnouts			
Culverts			
Roadside Vegetated Filter Strips			
Stormwater Energy Dissipaters	Infiltration/Recharge		
Level Spreaders	-		
☐ Riprap Aprons			
Upslope Diversions		□VC □RC □WQ	
Other		□VC □RC □WQ	

Identify and list critical stages of implementation of the PCSM Plan for which a licensed professional or designee shall be present on site.

(See NOI Instructions for additional guidance with this section)

The remainder of this section (Summary Table for Calculation and Measurement Data) does not need to be completed for areas of projects involving oil and gas activities authorized by Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure which will be restored to meadow in good condition or better or existing conditions.

Watershed Name: French Creek			
Volume Control design storm frequency <u>N/A</u> Rainfall amount <u>N/A</u> inches	Pre-construction	Post Construction	Net Change
Impervious area (acres)	N/A	N/A	N/A
Volume of stormwater runoff (acre- feet) without planned stormwater BMPs	N/A	N/A	N/A
Volume of stormwater runoff (acre- feet) with planned stormwater BMPs		N/A	N/A
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change
1) 2-Year/24-Hour	N/A	N/A	N/A
2) 10-Year/24-Hour	N/A	N/A	N/A
3) 50-year/24-Hour	N/A	N/A	N/A
4) 100-year/24-Hour	N/A	N/A	N/A
f Summary Description of PCSI			V

f. Summary Description of PCSM/SR BMPs SITE RESTORATION ONLY

In the lists below, check the BMPs identified in the PCSM Plan. The primary function(s) of the BMP listed in the functions column (infiltration/recharge; detention/retention; water quality). Additional functions may be added if applicable to that BMP. List the stormwater volume and area of runoff to be treated by each BMP type when calculations are required. If any BMP in the PCSM/SR Plan is not listed below, describe it in the space provided after "Other". A summary table with infiltration testing information (Attachment E, included in the NOI Instructions) must be submitted for all Bio-infiltration BMPs included in PCSM/SR plan.

For Rate control provide the volume of stormwater treated and acres treated for the 100-year/24-hour storm event.

For volume control and water quality provide the volume of stormwater treated and acres treated for the 2-year/24-hour storm event.

ВМР	Function(s)	Purpose(s)	Volume of stormwater treated	Acres treated
Site Restoration ONLY				
Restore Site to Meadow in Good Condition or Better, or Existing Conditions	Infiltration/Recharge Detention/WQ Treatment	🛛 VC 🖾 RC 🖾 WQ		
Bio-infiltration areas	Infiltration/Recharge			
Infiltration Trench				
Infiltration Bed				
Infiltration Basin				
Rain Garden/ Bioretention				
Infiltration Berm				

Natural Area Conservation	Infiltration/Recharge		
Streamside Buffer Zone		□VC □RC □WQ	
Wetland Buffer Zone		□VC □RC □WQ	
Sensitive Area Buffer Zone		□VC □RC □WQ	
Pre-Construction Drainage Pattern Intact			
Stormwater Retention	Detention/Retention		
Constructed Wetlands		□VC □RC □WQ	
Wet Ponds		□VC □RC □WQ	
Retention Basin			
Sediment and Pollutant	Water Quality		
Removal	Treatment		
Vegetated Filter Strips			
Compost Filter Sock			
Detention Basins			
Access Road Design	Infiltration/Recharge		
Road Crowning		🗌 VC 🗌 RC 🗌 WQ	
Ditches			
Turnouts			
Culverts			
Roadside Vegetated Filter Strips			
Stormwater Energy Dissipaters	Infiltration/Recharge		
Level Spreaders	-		
☐ Riprap Aprons			
Upslope Diversions		□VC □RC □WQ	
Other		□VC □RC □WQ	

Identify and list critical stages of implementation of the PCSM Plan for which a licensed professional or designee shall be present on site.

SECTION I	SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) AND/OR SITE RESTORATION(SR) PLAN						
DCCM/CD		ould bo	See NOI Instructions for add			ovtopoivo	
construction proposed in for conven <i>Manual</i>) (36	PCSM/SR BMPs should be designed to use natural measures to eliminate pollution, infiltrate runoff, not require extensive construction/maintenance, promote pollutant reduction, and preserve the integrity of stream channels. All PCSM/SR BMPs proposed in the PCSM/SR Plan must be designed in accordance with Ch. 102, Ch. 78a for unconventional operations, Ch. 78 for conventional operations and the <i>Pennsylvania Stormwater Best Management Practices Manual (Stormwater BMP Manual)</i> (363-0300-002). If alternate design criteria are utilized for the proposed project, they must have prior approval by the Department, or the NOI Application will be returned to the Applicant.						
After constr or existing		<u> </u>		urbed area will be res	tored to meadow in good condition	n or better,	
Include PC the site res			d drawings for remaining imperv	vious area. Also incluc	de a map showing the proposed o	contours of	
required by	v subsecti	on 'a' to		partial restoration or	n, list the stages and provide the or changes to the amount of compace addition to the drawings.		
	EXAMP	LE					
	Stage N	lo S ^e	tage Name	PCSM Plan	SR Plan		
	Stage 1	Pł	nase 1: Adelphia Gateway		\boxtimes		
	Stage 2		nase 2A: Tilghman & Parkway aterals (PA/DE State line to Transco))			
	Stage 3	Pł	nase 2B: Tilghman Lateral	\boxtimes	\boxtimes		
	Stage 4						
Is there a	n Act 167	' Plan?	Tr	tes: ansco Meter Station arcus Hook Compres blicable approved Act	ssor Station		
		-		er Management Plans	. (Use additional sheets if necess	ary)	
Act 167 F <u>Naaman'</u>		9	Date Adopted N/A		Consistency Letter Included Verification Report Included		
			er is not required if a verificati sub paragraph 1, 2, or 3 below		See NOI Instructions. The PCS ply.	M/SR Plan	
1. Act 167 Plan approvals on or after January 2005 – The attached PCSM/SR Plan, in its entirety, is consistent with all requirements pertaining to rate, volume, and water quality from an Act 167 Stormwater Management Plan approved by DEP on or after January 2005. Box 1 must be checked if a current, DEP approved Act 167 plan exists.							
2. The PCSM/SR Plan meets the standard design criteria from sections 102.8(g)(2) and (3) and the <i>Stormwater BMP Manual</i> . For projects involving oil and gas activities authorized by a permit issued under Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure, post construction stormwater management requirements are met for all areas that are restored to preconstruction conditions or to a condition of meadow in good condition or better. [Note: PCSM plans must meet both the volume and rate requirements in the regulations, which are provided in the 2 sections mentioned in this paragraph].							
3.							

PCSM/SR BMP Alternative Standards:
Has the alternative BMP or design standard been approved by the Department?
No – Do not submit the ESCGP-3 application and see Section (H) of the NOI Instructions concerning the alternative BMP approval process.
Water Quality Compliance:
Does the PCSM/SR plan comply with requirements for volume control? $igsqceed$ Yes \hdots No
If yes, is at least 90% of the disturbed area controlled by a PCSM BMP? \square Yes \square No
If yes, do you have the Standard PCSM Worksheet # 10 attached to show water quality compliance has achieved?
If no, attach Standard PCSM Worksheets # 12 and #13 to show water quality compliance has achieved.
If PCSM/SR plan is not complying with the requirements for volume control, attach Standard PCSM Worksheets # 11, # 12 and #13 to show water quality compliance has achieved. See PCSM Narrative, Section VII & App. D.1
a. PCSM/SR Plan Summary
Provide a summary of proposed BMPs and their performance to manage PCSM/SR for the project. The following Best Management Practices (BMP), in accordance with Pennsylvania Stormwater BMP Manual, dated December 2006, have been integrated into the design to reduce runoff volume, reduce peak rates and improve water quality. These structural BMPs will result in the prevention or minimization of increased stormwater runoff rate, volume and/or changes in stormwater runoff. Implementing these controls will preserve the integrity of stream channels and maintain and protect the physical, biological and chemical qualities of the receiving stream.
A vegetated MRC BMP will be constructed at Marcus Hook Compressor Station. This structural BMP serves the functions of volume reduction, runoff quality and peak rate reduction. A subsurface infiltration bed (BMP 6.4.3, StormTank) will be constructed at Transco Meter Station. This structural BMP serves the functions of volume reduction, runoff quality and peak rate reduction.
Check all that apply 🛛 PCSM BMPs 🔤 SR BMPs
b. Do you have any information regarding riparian buffer which differs from what was submitted in the Section G, Riparian Buffer?
□ Yes ⊠ No
Explain:
c. Thermal Impacts Analysis
Explain how thermal impacts associated with this project were avoided, minimized, or mitigated. Thermal impacts associated with the project will be minimized and/or mitigated through the incorporation of a vegetated MRC BMP.
Runoff from the impervious areas will be directed to the BMPs where the travel time is increased to infiltrate and/or store runoff, reducing the quantity and temperature of the runoff.
The subsurface basin at Transco Meter Station will temporarily store stormwater runoff beneath the surface, away from direct sunlight and will promote infiltration which will release water into the groundwater instead of discharging to the surface waters. The surface basin at Marcus Hook Compressor Station will be vegetated. Landscaping and vegetative cover will mimic natural ecosystems, resulting in a system that is resistant to climatic stresses. Additionally, the basin's outlet structure is designed to promote the slow release of outflow to the surface waters.
d. Off-Site Discharge Analysis.
Does the activity propose any off-site discharges to areas other than surface waters? 🛛 Yes 🗌 No
If yes, it is the applicant's responsibility to ensure that they have legal authority for any off-site discharge to neighboring properties.
The Applicant must provide a demonstration in both the E&S and PCSM/SR Plans that the discharge will not cause
erosion, damage, or a nuisance to off-site properties. See PCSM Narrative, Section XI, Page 15

(See NOI Instructions for additional guidance with this section)

The remainder of this section (Summary Table for Calculation and Measurement Data) does not need to be completed for areas of projects involving oil and gas activities authorized by Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure which will be restored to meadow in good condition or better or existing conditions.

Watershed Name: Naamans Creek (Site - Marcus Hook Compressor Site)						
Volume Control design storm frequency <u>2-yr</u> Rainfall amount <u>3.4</u> inches	Pre-construction	Post Construction	Net Change			
Impervious area (acres)	0.80	1.44	0.64			
Volume of stormwater runoff (acre- feet) without planned stormwater BMPs	1.220	1.320	+0.100			
Volume of stormwater runoff (acre- feet) with planned stormwater BMPs		0.427	+0.327			
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change			
1) 2-Year/24-Hour	24.85	16.66	-8.19			
2) 10-Year/24-Hour	39.80	25.84	-13.99			
3) 50-year/24-Hour	60.98	43.13	-17.85			
4) 100-year/24-Hour	73.05	51.46	-21.59			
f Summary Description of PCSM/SR BMPs						

f. Summary Description of PCSM/SR BMPs

In the lists below, check the BMPs identified in the PCSM Plan. The primary function(s) of the BMP listed in the functions column (infiltration/recharge; detention/retention; water quality). Additional functions may be added if applicable to that BMP. List the stormwater volume and area of runoff to be treated by each BMP type when calculations are required. If any BMP in the PCSM/SR Plan is not listed below, describe it in the space provided after "Other". A summary table with infiltration testing information (Attachment E, included in the NOI Instructions) must be submitted for all Bio-infiltration BMPs included in PCSM/SR plan.

For Rate control provide the volume of stormwater treated and acres treated for the 100-year/24-hour storm event.

For volume control and water quality provide the volume of stormwater treated and acres treated for the 2-year/24-hour storm event.

ВМР	Function(s)	Purpose(s)	Volume of stormwater treated	Acres treated
Site Restoration ONLY				
Restore Site to Meadow in Good Condition or Better, or Existing Conditions	Infiltration/Recharge Detention/WQ Treatment			
Bio-infiltration areas	Infiltration/Recharge			
Infiltration Trench				
Infiltration Bed				
Infiltration Basin				
Rain Garden/ Bioretention(MRC)		🛛 VC 🖾 RC 🖾 WQ	<u>0.377</u>	<u>2.20</u>
Infiltration Berm				

Natural Area Conservation	Infiltration/Recharge		
 Streamside Buffer Zone Wetland Buffer Zone 		□VC □RC □WQ □VC □RC □WQ	
Sensitive Area Buffer Zone			
 Pre-Construction Drainage Pattern Intact 			
Stormwater Retention	Detention/Retention		
Constructed WetlandsWet Ponds		□ VC □ RC □ WQ □ VC □ RC □ WQ	
Retention Basin			
Sediment and Pollutant Removal	Water Quality Treatment		
Vegetated Filter Strips		UVC RC WQ	
Compost Filter Sock			
Detention Basins			
Access Road Design	Infiltration/Recharge		
Road Crowning			
Ditches			
Turnouts			
Roadside Vegetated Filter Strips			
Stormwater Energy Dissipaters	Infiltration/Recharge		
Level Spreaders		□VC □RC □WQ	
Riprap Aprons		□VC □RC □WQ	
Upslope Diversions		□VC □RC □WQ	
Other		🗌 VC 🗌 RC 🗌 WQ	

Identify and list critical stages of implementation of the PCSM Plan for which a licensed professional or designee shall be present on site.

A licensed professional should be present and witness the following stages in construction:

Excavation and final grading of the BMP.

Placement of geotextile and aggregate within the BMP.

Construction of the outlet structure and discharging of piping from the BMP.

(See NOI Instructions for additional guidance with this section)

The remainder of this section (Summary Table for Calculation and Measurement Data) does not need to be completed for areas of projects involving oil and gas activities authorized by Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure which will be restored to meadow in good condition or better or existing conditions.

Watershed Name: Naamans Creek (Site - Transco Meter Station Site)						
Pre-construction	Post Construction	Net Change				
0.000	0.152	0.152				
0.089	0.162	+0.074				
	0.074	0.000				
Pre-construction	Post Construction	Net Change				
1.45	0.70	-0.75				
3.20	1.78	-1.78				
6.05	4.58	-1.47				
7.76	6.26	-1.50				
	Pre-construction 0.000 0.089 Pre-construction 1.45 3.20 6.05	Pre-constructionPost Construction0.0000.1520.0890.1620.0740.074Pre-constructionPost Construction1.450.703.201.786.054.58				

f. Summary Description of PCSM/SR BMPs

In the lists below, check the BMPs identified in the PCSM Plan. The primary function(s) of the BMP listed in the functions column (infiltration/recharge; detention/retention; water quality). Additional functions may be added if applicable to that BMP. List the stormwater volume and area of runoff to be treated by each BMP type when calculations are required. If any BMP in the PCSM/SR Plan is not listed below, describe it in the space provided after "Other". A summary table with infiltration testing information (Attachment E, included in the NOI Instructions) must be submitted for all Bio-infiltration BMPs included in PCSM/SR plan.

For Rate control provide the volume of stormwater treated and acres treated for the 100-year/24-hour storm event.

For volume control and water quality provide the volume of stormwater treated and acres treated for the 2-year/24-hour storm event.

ВМР	Function(s)	Purpose(s)	Volume of stormwater treated	Acres treated
Site Restoration ONLY				
Restore Site to Meadow in Good Condition or Better, or Existing Conditions	Infiltration/Recharge Detention/WQ Treatment			
Bio-infiltration areas	Infiltration/Recharge			
Infiltration Trench				
Infiltration Bed		🛛 VC 🖾 RC 🖾 WQ	<u>0.105</u>	<u>0.64</u>
Infiltration Basin		□VC □RC □WQ		
Rain Garden/ Bioretention		UVC RC WQ		
Infiltration Berm				

Natural Area Conservation	Infiltration/Recharge		
 Streamside Buffer Zone Wetland Buffer Zone 		□VC □RC □WQ □VC □RC □WQ	
Sensitive Area Buffer Zone			
 Pre-Construction Drainage Pattern Intact 			
Stormwater Retention	Detention/Retention		
Constructed WetlandsWet Ponds		□ VC □ RC □ WQ □ VC □ RC □ WQ	
Retention Basin			
Sediment and Pollutant Removal	Water Quality Treatment		
Vegetated Filter Strips		UVC RC WQ	
Compost Filter Sock			
Detention Basins			
Access Road Design	Infiltration/Recharge		
Road Crowning			
Ditches			
Turnouts			
Roadside Vegetated Filter Strips			
Stormwater Energy Dissipaters	Infiltration/Recharge		
Level Spreaders		□VC □RC □WQ	
Riprap Aprons		□VC □RC □WQ	
Upslope Diversions		□VC □RC □WQ	
Other		🗌 VC 🗌 RC 🗌 WQ	

Identify and list critical stages of implementation of the PCSM Plan for which a licensed professional or designee shall be present on site.

A licensed professional should be present and witness the following stages in construction:

Excavation and final grading of the BMP.

Placement of geotextile and aggregate within the BMP.

Construction of the outlet structure and discharging of piping from the BMP.

Notice of Intent							
SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) AND/OR SITE RESTORATION(SR) PLAN							
	See NOI Instructions for additional guidance with PCSM Plans						
constructio proposed in for conver <i>Manual</i>) (3	PCSM/SR BMPs should be designed to use natural measures to eliminate pollution, infiltrate runoff, not require extensive construction/maintenance, promote pollutant reduction, and preserve the integrity of stream channels. All PCSM/SR BMPs proposed in the PCSM/SR Plan must be designed in accordance with Ch. 102, Ch. 78a for unconventional operations, Ch. 78 for conventional operations and the <i>Pennsylvania Stormwater Best Management Practices Manual (Stormwater BMP Manual)</i> (363-0300-002). If alternate design criteria are utilized for the proposed project, they must have prior approval by the Department, or the NOI Application will be returned to the Applicant.						
	After construction is completed, how much of the entire disturbed area will be restored to meadow in good condition or better, or existing conditions?						
	SM narrative toration plan	e and drawings for remaining impervio	us area. Also include a	map showing the proposed o	contours of		
required by	v subsection	ages of the project prior to permit tern 'a' to section 'g' for each stage (e.g. pa us areas). Upload a narrative for each a	artial restoration or chan	ges to the amount of compac			
	EXAMPLE						
	Stage No	Stage Name	PCSM Plan	SR Plan			
	Stage 1	Phase 1: Adelphia Gateway					
	Stage 2	Phase 2A: Tilghman & Parkway Laterals (PA/DE State line to Transco)					
	Stage 3	Phase 2B: Tilghman Lateral					
	Stage 4						
Act 167	Consistency	. Check those that apply. Site:					
	n Act 167 Pl		oack Pike Meter Blo	owdown			
🛛 The a	attached PCS	SM/SR Plan is consistent with an appli	cable approved Act 167	Plan.			
•		g for all approved Act 167 Stormwater	Management Plans. (Us	se additional sheets if necess	sary)		
	Plan Name	Date Adopted	C	onsistency Letter Included			
East Bra	nch of Perk	iomen Creek May 5, 2004	Ve	erification Report Included	\boxtimes		
Note: A consistency letter is not required if a verification report is provided. See NOI Instructions. The PCSM/SR Plan must satisfy either sub paragraph 1, 2, or 3 below. Check those that apply.							
1.	1. Act 167 Plan approvals on or after January 2005 – The attached PCSM/SR Plan, in its entirety, is consistent with all requirements pertaining to rate, volume, and water quality from an Act 167 Stormwater Management Plan approved by DEP on or after January 2005. Box 1 must be checked if a current, DEP approved Act 167 plan exists.						
2.	2. The PCSM/SR Plan meets the standard design criteria from sections 102.8(g)(2) and (3) and the <i>Stormwater BMP Manual.</i> For projects involving oil and gas activities authorized by a permit issued under Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure, post construction stormwater management requirements are met for all areas that are restored to preconstruction conditions or to a condition of meadow in good condition or better. <i>[Note: PCSM plans must meet both the volume and rate requirements in the regulations, which are provided in the 2 sections mentioned in this paragraph].</i>						
3.	3. Alternative Design Standard – The attached PCSM/SR Plan was developed using approaches as provided in 102.8(g)(2)(iv) and 102.8(g)(3)(iii). Demonstrate/explain in the space provided below how this standard will be either more protective than what is required in 102.8(g)(2) and 102.8(g)(3) or will maintain and protect existing water quality and existing and designated uses.						

PCSM/SR BMP Alternative Standards:
Has the alternative BMP or design standard been approved by the Department?
Yes
□ No – Do not submit the ESCGP-3 application and see Section (H) of the NOI Instructions concerning the alternation BMP approval process.
Water Quality Compliance:
Does the PCSM/SR plan comply with requirements for volume control? $igsquare$ Yes $igsquare$ No
If yes, is at least 90% of the disturbed area controlled by a PCSM BMP? $igsqcolor$ Yes $\hfill \square$ No
If yes, do you have the Standard PCSM Worksheet # 10 attached to show water quality compliance has achieved? Yes No SITE RESTORATION ONLY - MEET SECTION 102.8(g)(2) and (3). Per 102.8(n), WORKSHEET #10, #12 & #13 ARE NOT APPLICABL
If no, attach Standard PCSM Worksheets # 12 and #13 to show water quality compliance has achieved.
If PCSM/SR plan is not complying with the requirements for volume control, attach Standard PCSM Worksheets # 11, # and #13 to show water quality compliance has achieved.
a. PCSM/SR Plan Summary
Provide a summary of proposed BMPs and their performance to manage PCSM/SR for the project.
All sites will be restored to pre-existing conditions. By limiting the disturbed areas, limiting extent and duration disturbance and performing site restoration, these practices will eliminate the net change in rate, volume and wal quality after construction.
Check all that apply
b. Do you have any information regarding riparian buffer which differs from what was submitted in the Section G, Riparia Buffer?
🗌 Yes 🛛 No
Explain:
c. Thermal Impacts Analysis
Explain how thermal impacts associated with this project were avoided, minimized, or mitigated.
Thermal impacts have been minimized by limiting the disturbed area to the maximum extent practicable. By minimizing the extent of the disturbed area, vegetative clearing has been minimized. Thermal impacts will also be minimizing the duration of disturbance and reseeding and restoring vegetative growth as soon as possible.
d. Off-Site Discharge Analysis.
Does the activity propose any off-site discharges to areas other than surface waters? \square Yes \square No
If yes, it is the applicant's responsibility to ensure that they have legal authority for any off-site discharge to neighborin properties.
The Applicant must provide a demonstration in both the E&S and PCSM/SR Plans that the discharge will not cause erosion, damage, or a nuisance to off-site properties.
See PCSM Narrative, Section XI, Page 15

(See NOI Instructions for additional guidance with this section)

The remainder of this section (Summary Table for Calculation and Measurement Data) does not need to be completed for areas of projects involving oil and gas activities authorized by Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure which will be restored to meadow in good condition or better or existing conditions.

Watershed Name: Perkiomen Creek						
Volume Control design storm frequency <u>N/A</u> Rainfall amount <u>N/A</u> inches	Pre-construction	Post Construction	Net Change			
Impervious area (acres)	N/A	N/A	N/A			
Volume of stormwater runoff (acre- feet) without planned stormwater BMPs	N/A	N/A	N/A			
Volume of stormwater runoff (acre- feet) with planned stormwater BMPs		N/A	N/A			
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change			
1) 2-Year/24-Hour	N/A	N/A	N/A			
2) 10-Year/24-Hour	N/A	N/A	N/A			
3) 50-year/24-Hour	N/A	N/A	N/A			
4) 100-year/24-Hour	N/A	N/A	N/A			
f. Summary Description of PCSM/SR BMPs SITE RESTORATION ONLY						

In the lists below, check the BMPs identified in the PCSM Plan. The primary function(s) of the BMP listed in the functions column (infiltration/recharge; detention/retention; water quality). Additional functions may be added if applicable to that BMP. List the stormwater volume and area of runoff to be treated by each BMP type when calculations are required. If any BMP in the PCSM/SR Plan is not listed below, describe it in the space provided after "Other". A summary table with infiltration testing information (Attachment E, included in the NOI Instructions) must be submitted for all Bio-infiltration BMPs included in PCSM/SR plan.

For Rate control provide the volume of stormwater treated and acres treated for the 100-year/24-hour storm event.

For volume control and water quality provide the volume of stormwater treated and acres treated for the 2-year/24-hour storm event.

ВМР	Function(s)	Purpose(s)	Volume of stormwater treated	Acres treated
Site Restoration ONLY				
Restore Site to Meadow in Good Condition or Better, or Existing Conditions	Infiltration/Recharge Detention/WQ Treatment			
Bio-infiltration areas	Infiltration/Recharge			
Infiltration Trench				
Infiltration Bed				
Infiltration Basin		UVC RC WQ		
Rain Garden/ Bioretention		UVC RC WQ		
Infiltration Berm				

Natural Area Conservation	Infiltration/Recharge		
Streamside Buffer Zone		□VC □RC □WQ	
Wetland Buffer Zone		□VC □RC □WQ	
Sensitive Area Buffer Zone		□VC □RC □WQ	
Pre-Construction Drainage Pattern Intact			
Stormwater Retention	Detention/Retention		
Constructed Wetlands			
Wet Ponds		🗌 VC 🗌 RC 🗌 WQ	
Retention Basin			
Sediment and Pollutant	Water Quality		
Removal	Treatment		
Vegetated Filter Strips		□VC □RC □WQ	
Compost Filter Sock			
Detention Basins			
Access Road Design	Infiltration/Recharge		
Road Crowning		🗌 VC 🗌 RC 🗌 WQ	
Ditches		🗌 VC 🗌 RC 🗌 WQ	
Turnouts			
Culverts			
Roadside Vegetated Filter		□vc □rc □wq	
Strips			
Stormwater Energy Dissipaters	Infiltration/Recharge		
Level Spreaders		□VC □RC □WQ	
Riprap Aprons			
Upslope Diversions			
Other			

Identify and list critical stages of implementation of the PCSM Plan for which a licensed professional or designee shall be present on site.

SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) AND/OR SITE RESTORATION(SR) PLAN							
See NOI Instructions for additional guidance with PCSM Plans PCSM/SR BMPs should be designed to use natural measures to eliminate pollution, infiltrate runoff, not require extensive construction/maintenance, promote pollutant reduction, and preserve the integrity of stream channels. All PCSM/SR BMPs proposed in the PCSM/SR Plan must be designed in accordance with Ch. 102, Ch. 78a for unconventional operations, Ch. 78 for conventional operations and the <i>Pennsylvania Stormwater Best Management Practices Manual (Stormwater BMP Manual)</i> (363-0300-002). If alternate design criteria are utilized for the proposed project, they must have prior approval by the Department, or the NOI Application will be returned to the Applicant.							
After construction is completed, how much of the entire disturbed area will be restored to meadow in good condition or better, or existing conditions?							
	us area. Also inclu	ude a map showing the proposed	contours of				
a' to section 'g' for each stage (e.g. pa	artial restoration or	r changes to the amount of comp					
Stage Name	PCSM Plan	SR Plan					
Phase 1: Adelphia Gateway	\square	\square					
Phase 2A: Tilghman & Parkway Laterals (PA/DE State line to Transco)		\square					
Phase 2B: Tilghman Lateral	\boxtimes	\square					
Stage 4							
Act 167 Consistency. Check those that apply. Site: Is there an Act 167 Plan? Yes No Quakertown Compressor Station							
M/SR Plan is consistent with an appli	cable approved Act	t 167 Plan.					
	Management Plan		ssary) □				
 Note: A consistency letter is not required if a verification report is provided. See NOI Instructions. The PCSM/SR Plan must satisfy either sub paragraph 1, 2, or 3 below. Check those that apply. 1. Act 167 Plan approvals on or after January 2005 – The attached PCSM/SR Plan, in its entirety, is consistent with all requirements pertaining to rate, volume, and water quality from an Act 167 Stormwater Management Plan approved by DEP on or after January 2005. Box 1 must be checked if a current. DEP approved Act 167 							
 plan exists. 2. The PCSM/SR Plan meets the standard design criteria from sections 102.8(g)(2) and (3) and the <i>Stormwater BMP Manual</i>. For projects involving oil and gas activities authorized by a permit issued under Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure, post construction stormwater management requirements are met for all areas that are restored to preconstruction conditions or to a condition of meadow in good condition or better. [Note: PCSM plans must meet both the volume and rate requirements in the regulations, which are provided in the 2 sections mentioned in this paragraph]. 3. Alternative Design Standard – The attached PCSM/SR Plan was developed using approaches as provided in 102.8(g)(2)(iv) and 102.8(g)(3)(iii). Demonstrate/explain in the space provided below how this standard will be either more protective than what is required in 102.8(g)(2) and 102.8(g)(3) or will maintain and protect 							
	See NOI Instructions for addit d be designed to use natural measure d be designed to use natural measure SR Plan must be designed in accordations and the Pennsylvania Stormm N. If alternate design criteria are utilized Application will be returned to the App mpleted, how much of the entire distur All Partial and drawings for remaining imperviou ages of the project prior to permit term a' to section 'g' for each stage (e.g. p s areas). Upload a narrative for each Stage Name Phase 1: Adelphia Gateway Phase 2A: Tilghman & Parkway Laterals (PA/DE State line to Transco) Phase 2B: Tilghman Lateral . M/SR Plan is consistent with an appliag for all approved Act 167 Stormwater Date Adopted February 28, 2002 a letter is not required if a verification ither sub paragraph 1, 2, or 3 below. 7 Plan approvals on or after January 2 requirements pertaining to rate, volur oproved by DEP on or after January 2 rists. CSM/SR Plan meets the standard water BMP Manual. For projects involu- projects involu- projects involu- projects involu- projects involu- projects involu- projects involu- projects involu- projects involu-	See NOI Instructions for additional guidance will be designed to use natural measures to eliminate porte, promote pollutant reduction, and preserve the integ SR Plan must be designed in accordance with Ch. 102, () for the proposed of the proproved of the proposed of the proposed of the	See NOI Instructions for additional guidance with PCSM Plans d be designed to use natural measures to eliminate pollution, infiltrate runoff, not requive, promote pollutant reduction, and preserve the integrity of stream channels. All PCS SR Plan must be designed in accordance with Ch. 102, Ch. 78a for unconventional operal ions and the <i>Pennsylvania Stormwater Best Management Practices Manual (Storm</i>). If alternate design criteria are utilized for the proposed project, they must have prior appropriate design criteria are utilized for the proposed project, they must have prior appropriate design criteria are utilized for the proposed project, they must have prior appropriate design criteria are utilized for the proposed project, they must have prior appropriate design criteria are utilized for the proposed project, they must have prior appropriate design criteria are utilized for the proposed project, they must have prior appropriate design criteria are utilized for the proposed on the design criteria are utilized for the proposed on the design criteria are utilized for the proposed on the area will be restored to meadow in good conditional drawings for remaining impervious area. Also include a map showing the proposed ages of the project prior to permit termination or expiration, list the stages and provide the a to section 'g' for each stage (e.g. partial restoration or changes to the amount of comp s areas). Upload a narrative for each additional stage in addition to the drawings. Stage Name PCSM Plan SR Plan Phase 1: Adelphia Gateway Image: Charge Name Image: Charge Name Phase 2A: Tighman Lateral Image: Charge Name Image: Charge Name Phase 2B: Tighman Lateral I				

PCSM/SR BMP Alternative Standards:
Has the alternative BMP or design standard been approved by the Department?
Yes
No – Do not submit the ESCGP-3 application and see Section (H) of the NOI Instructions concerning the alternative BMP approval process.
Water Quality Compliance:
Does the PCSM/SR plan comply with requirements for volume control? 🛛 Yes 🗌 No
If yes, is at least 90% of the disturbed area controlled by a PCSM BMP? \square Yes \square No
If yes, do you have the Standard PCSM Worksheet # 10 attached to show water quality compliance has achieved?
If no, attach Standard PCSM Worksheets # 12 and #13 to show water quality compliance has achieved.
If PCSM/SR plan is not complying with the requirements for volume control, attach Standard PCSM Worksheets # 11, # 12 and #13 to show water quality compliance has achieved. See PCSM Narrative, Section VII & App. D.1
a. PCSM/SR Plan Summary
Provide a summary of proposed BMPs and their performance to manage PCSM/SR for the project. The following Best Management Practices (BMP), in accordance with Pennsylvania Stormwater BMP Manual, dated December 2006, have been integrated into the design to reduce runoff volume, reduce peak rates and improve water quality. These structural BMPs will result in the prevention or minimization of increased stormwater runoff rate, volume and/or changes in stormwater runoff. Implementing these controls will preserve the integrity of stream channels and maintain and protect the physical, biological and chemical qualities of the receiving stream.
A non-vegetated managed release concept (MRC) BMP will be installed at Quakertown Compressor Station. The MRC BMP will be non-vegetated with underground storage chambers (Storm-tank). A stormwater swale with check dams will be installed upstream of the MRC BMP. This combination of structural BMPs serves the
functions of volume reduction, runoff quality and peak rate reduction. Check all that apply PCSM BMPs ISR BMPs
b. Do you have any information regarding riparian buffer which differs from what was submitted in the Section G, Riparian Buffer?
🗌 Yes 🛛 No
Explain:
c. Thermal Impacts Analysis
Explain how thermal impacts associated with this project were avoided, minimized, or mitigated.
Thermal impacts associated with the project will be minimized and/or mitigated through the incorporation a subsurface MRC basin and a stormwater swale with check dams. Runoff from the impervious areas will be directed to the BMPs where the travel time is increased to store runoff, reducing the quantity and temperature of the runoff.
The subsurface basin at Quakertown Compressor Station will temporarily store stormwater runoff beneath the surface, away from direct sunlight and will promote the slow release of outflow to the surface waters.
d. Off-Site Discharge Analysis.
Does the activity propose any off-site discharges to areas other than surface waters? $oxed{int}$ Yes $oxed{int}$ No
If yes, it is the applicant's responsibility to ensure that they have legal authority for any off-site discharge to neighboring properties.
The Applicant must provide a demonstration in both the E&S and PCSM/SR Plans that the discharge will not cause erosion, damage, or a nuisance to off-site properties.
See PCSM Narrative, Section XI, Page 15

(See NOI Instructions for additional guidance with this section)

The remainder of this section (Summary Table for Calculation and Measurement Data) does not need to be completed for areas of projects involving oil and gas activities authorized by Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure which will be restored to meadow in good condition or better or existing conditions.

Watershed Name: Tohickon Creek (Site - Quakertown Compressor Site)						
Volume Control design storm frequency <u>2-yr</u> Rainfall amount <u>3.16</u> inches	Pre-construction	Post Construction	Net Change			
Impervious area (acres)	0.006	0.390	0.384			
Volume of stormwater runoff (acre- feet) without planned stormwater BMPs	0.203	0.295	+0.092			
Volume of stormwater runoff (acre- feet) with planned stormwater BMPs		0.148	-0.056			
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change			
1) 2-Year/24-Hour	3.32	2.38	-0.94			
2) 10-Year/24-Hour	5.85	3.67	-2.18			
3) 50-year/24-Hour	9.48	5.44	-4.04			
4) 100-year/24-Hour	11.54	6.67	-4.87			
f Summary Description of PCSM/SR BMDs						

f. Summary Description of PCSM/SR BMPs

In the lists below, check the BMPs identified in the PCSM Plan. The primary function(s) of the BMP listed in the functions column (infiltration/recharge; detention/retention; water quality). Additional functions may be added if applicable to that BMP. List the stormwater volume and area of runoff to be treated by each BMP type when calculations are required. If any BMP in the PCSM/SR Plan is not listed below, describe it in the space provided after "Other". A summary table with infiltration testing information (Attachment E, included in the NOI Instructions) must be submitted for all Bio-infiltration BMPs included in PCSM/SR plan.

For Rate control provide the volume of stormwater treated and acres treated for the 100-year/24-hour storm event.

For volume control and water quality provide the volume of stormwater treated and acres treated for the 2-year/24-hour storm event.

ВМР	Function(s)	Purpose(s)	Volume of stormwater treated	Acres treated
Site Restoration ONLY				
Restore Site to Meadow in Good Condition or Better, or Existing Conditions	Infiltration/Recharge Detention/WQ Treatment			
Bio-infiltration areas	Infiltration/Recharge			
Infiltration Trench				
Infiltration Bed				
Infiltration Basin				
Rain Garden/ Bioretention				
Infiltration Berm				

Natural Area Conservation	Infiltration/Recharge			
Streamside Buffer Zone	-			
Wetland Buffer Zone		□VC □RC □WQ		
Sensitive Area Buffer Zone		□VC □RC □WQ		
Pre-Construction Drainage Pattern Intact				
Stormwater Retention	Detention/Retention			
Constructed Wetlands				
U Wet Ponds				
Retention Basin (MRC)		\boxtimes VC \boxtimes RC \boxtimes WQ	<u>0.192</u>	<u>1.09</u>
Sediment and Pollutant	Water Quality			
Removal	Treatment			
Vegetated Filter Strips				
Compost Filter Sock				
Detention Basins				
Access Road Design	Infiltration/Recharge			
Road Crowning		🗌 VC 🗌 RC 🗌 WQ		
Ditches		🗌 VC 🗌 RC 🗌 WQ		
Turnouts		UVC RC WQ		
Culverts				
Roadside Vegetated Filter				
Strips				
Stormwater Energy Dissipaters	Infiltration/Recharge			
Level Spreaders		□VC □RC □WQ		
Riprap Aprons		□VC □RC □WQ		
Upslope Diversions		□VC □RC □WQ		
Other		□VC □RC □WQ		

g. Critical PCSM Plan stages

Identify and list critical stages of implementation of the PCSM Plan for which a licensed professional or designee shall be present on site.

A licensed professional should be present and witness the following stages in construction:

Excavation and final grading of the BMP.

Placement of geotextile and aggregate within the BMP.

Construction of the outlet structure and discharging of piping from the BMP.

SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) AND/OR SITE RESTORATION(SR) PLAN						
			See NOI Instructions for additi			
PCSM/SR BMPs should be designed to use natural measures to eliminate pollution, infiltrate runoff, not require extensive construction/maintenance, promote pollutant reduction, and preserve the integrity of stream channels. All PCSM/SR BMPs proposed in the PCSM/SR Plan must be designed in accordance with Ch. 102, Ch. 78a for unconventional operations, Ch. 78 for conventional operations and the <i>Pennsylvania Stormwater Best Management Practices Manual (Stormwater BMP Manual)</i> (363-0300-002). If alternate design criteria are utilized for the proposed project, they must have prior approval by the Department, or the NOI Application will be returned to the Applicant.						
	After construction is completed, how much of the entire disturbed area will be restored to meadow in good condition or better, or existing conditions?				n or better,	
Include PC the site res			and drawings for remaining impervio	us area. Also include a	map showing the proposed	contours of
required by	y subse	ection 'a	ges of the project prior to permit term ' to section 'g' for each stage (e.g. pa areas). Upload a narrative for each a	artial restoration or chan	ges to the amount of compa	
	EXAN	IPLE				
	Stage		Stage Name	PCSM Plan	SR Plan	
	Stage	e 1	Phase 1: Adelphia Gateway			
	Stage	e 2	Phase 2A: Tilghman & Parkway Laterals (PA/DE State line to Transco)			
	Stage	e 3	Phase 2B: Tilghman Lateral	\boxtimes		
	Stage	94				
Act 167	Consis	tency.	Check those that apply. Site:			
Is there a	an Act 1	167 Plar	n? ⊠ Yes 🗌 No 🛛 Main	line Valve 2		
🖂 The a	attache	d PCSN	//SR Plan is consistent with an applic	cable approved Act 167	Plan.	
			for all approved Act 167 Stormwater			sarv)
Act 167 F		-	Date Adopted	•	onsistency Letter Included	
Valley C	Valley Creek July 30, 2010 Verification Report Included			\boxtimes		
Note: A consistency letter is not required if a verification report is provided. See NOI Instructions. The PCSM/SR Plan must satisfy either sub paragraph 1, 2, or 3 below. Check those that apply.				M/SR Plan		
1.	1. Act 167 Plan approvals on or after January 2005 – The attached PCSM/SR Plan, in its entirety, is consistent with all requirements pertaining to rate, volume, and water quality from an Act 167 Stormwater Management Plan approved by DEP on or after January 2005. Box 1 must be checked if a current, DEP approved Act 167 plan exists.					
2. In PCSM/SR Plan meets the standard design criteria from sections 102.8(g)(2) and (3) and the <i>Stormwater BMP Manual</i> . For projects involving oil and gas activities authorized by a permit issued under Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure, post construction stormwater management requirements are met for all areas that are restored to preconstruction conditions or to a condition of meadow in good condition or better. [Note: PCSM plans must meet both the volume and rate requirements in the regulations, which are provided in the 2 sections mentioned in this paragraph].			sued under onstruction conditions volume and			
3.	3. Alternative Design Standard – The attached PCSM/SR Plan was developed using approaches as provided in 102.8(g)(2)(iv) and 102.8(g)(3)(iii). Demonstrate/explain in the space provided below how this standard will be either more protective than what is required in 102.8(g)(2) and 102.8(g)(3) or will maintain and protect existing water quality and existing and designated uses.					

 Has the alternative BMP or design standard been approved by the Department? Yes No – Do not submit the ESCGP-3 application and see Section (H) of the NOI Instructions concerning the altern BMP approval process.
□ No – Do not submit the ESCGP-3 application and see Section (H) of the NOI Instructions concerning the alterr
Water Quality Compliance:
Does the PCSM/SR plan comply with requirements for volume control? 🛛 Yes 🗌 No
If yes, is at least 90% of the disturbed area controlled by a PCSM BMP? $oxedsymbol{ ext{M}}$ Yes $oxedsymbol{ ext{D}}$ No
If yes, do you have the Standard PCSM Worksheet # 10 attached to show water quality compliance has achieved? Yes No SITE RESTORATION ONLY - MEET SECTION 102.8(g)(2) and (3). Per 102.8(n), WORKSHEET #10, #12 & #13 ARE NOT APPLICA
If no, attach Standard PCSM Worksheets # 12 and #13 to show water quality compliance has achieved.
If PCSM/SR plan is not complying with the requirements for volume control, attach Standard PCSM Worksheets # 11, and #13 to show water quality compliance has achieved.
a. PCSM/SR Plan Summary
Provide a summary of proposed BMPs and their performance to manage PCSM/SR for the project.
All sites will be restored to pre-existing conditions. By limiting the disturbed areas, limiting extent and duration disturbance and performing site restoration, these practices will eliminate the net change in rate, volume and quality after construction.
Check all that apply
b. Do you have any information regarding riparian buffer which differs from what was submitted in the Section G, Rip Buffer?
🗌 Yes 🛛 No
Explain:
a Thormal Impacts Analysis
c. Thermal Impacts Analysis Explain how thermal impacts associated with this project were avoided, minimized, or mitigated.
Thermal impacts have been minimized by limiting the disturbed area to the maximum extent practicable. By minim
the extent of the disturbed area, vegetative clearing has been minimized. Thermal impacts will also be minimizin duration of disturbance and reseeding and restoring vegetative growth as soon as possible.
duration of disturbance and researing and restoring vegetative growth as soon as possible.
d. Off-Site Discharge Analysis.
Does the activity propose any off-site discharges to areas other than surface waters? 🛛 Yes 🗌 No If yes, it is the applicant's responsibility to ensure that they have legal authority for any off-site discharge to neighb
properties.
The Applicant must provide a demonstration in both the E&S and PCSM/SR Plans that the discharge will not or erosion, damage, or a nuisance to off-site properties.
See PCSM Narrative, Section XI, Page 15

e. Summary Table for Supporting Calculation and Measurement Data

(See NOI Instructions for additional guidance with this section)

The remainder of this section (Summary Table for Calculation and Measurement Data) does not need to be completed for areas of projects involving oil and gas activities authorized by Chapter 78 or Chapter 78a (well pads) or pipelines and other similar utility infrastructure which will be restored to meadow in good condition or better or existing conditions.

Watershed Name: Valley Creek				
Volume Control design storm frequency <u>N/A</u> Rainfall amount <u>N/A</u> inches	Pre-construction	Post Construction	Net Change	
Impervious area (acres)	N/A	N/A	N/A	
Volume of stormwater runoff (acre- feet) without planned stormwater BMPs	N/A	N/A	N/A	
Volume of stormwater runoff (acre- feet) with planned stormwater BMPs		N/A	N/A	
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change	
1) 2-Year/24-Hour	N/A	N/A	N/A	
2) 10-Year/24-Hour	N/A	N/A	N/A	
3) 50-year/24-Hour	N/A	N/A	N/A	
4) 100-year/24-Hour	N/A	N/A	N/A	
f Summary Description of BCSM/SP BMPs SITE RESTORATION ONLY				

f. Summary Description of PCSM/SR BMPs SITE RESTORATION ONLY

In the lists below, check the BMPs identified in the PCSM Plan. The primary function(s) of the BMP listed in the functions column (infiltration/recharge; detention/retention; water quality). Additional functions may be added if applicable to that BMP. List the stormwater volume and area of runoff to be treated by each BMP type when calculations are required. If any BMP in the PCSM/SR Plan is not listed below, describe it in the space provided after "Other". A summary table with infiltration testing information (Attachment E, included in the NOI Instructions) must be submitted for all Bio-infiltration BMPs included in PCSM/SR plan.

For Rate control provide the volume of stormwater treated and acres treated for the 100-year/24-hour storm event.

For volume control and water quality provide the volume of stormwater treated and acres treated for the 2-year/24-hour storm event.

Key for BMP purpose(s): VC = Volume Control; RC = Rate Control; and WQ = Water Quality

ВМР	Function(s)	Purpose(s)	Volume of stormwater treated	Acres treated
Site Restoration ONLY				
Restore Site to Meadow in Good Condition or Better, or Existing Conditions	Infiltration/Recharge Detention/WQ Treatment	🛛 VC 🖾 RC 🖾 WQ		
Bio-infiltration areas	Infiltration/Recharge			
Infiltration Trench				
Infiltration Bed		UVC RC WQ		
Infiltration Basin		🗌 VC 🗌 RC 🗌 WQ		
Rain Garden/ Bioretention		UVC RC WQ		
Infiltration Berm				

Natural Area Conservation	Infiltration/Recharge		
Streamside Buffer Zone		UVC RC WQ	
Wetland Buffer Zone			
Sensitive Area Buffer Zone		UVC RC WQ	
Pre-Construction Drainage Pattern Intact			
Stormwater Retention	Detention/Retention		
Constructed Wetlands		UVC RC WQ	
Wet Ponds		UVC RC WQ	
Retention Basin			
Sediment and Pollutant	Water Quality		
Removal	Treatment		
Vegetated Filter Strips			
Compost Filter Sock			
Detention Basins			
Access Road Design	Infiltration/Recharge		
Road Crowning		□VC □RC □WQ	
Ditches		🗌 VC 🗌 RC 🗌 WQ	
Turnouts			
Culverts			
Roadside Vegetated Filter Strips			
	Infiltration/Decharge		
Stormwater Energy Dissipaters	Infiltration/Recharge		
Level Spreaders			
Riprap Aprons			
Upslope Diversions			
Other			

g. Critical PCSM Plan stages

Identify and list critical stages of implementation of the PCSM Plan for which a licensed professional or designee shall be present on site.

License professional to be present during the site restoration activities as noted the in Site Restoration Schedule.

CHESTER CREEK

SECTION I. ANTIDEGRADATION ANALYSIS

This section must be completed where earth disturbance activities will be conducted in the watershed of a surface water with an existing or designated use of exceptional value or high quality pursuant to Chapter 93 (relating to water quality standards), projects where any part is located in an exceptional value wetland in accordance with 25 Pa. Code § 105.17, and projects where any part is located in the watershed of an impaired surface water where the cause of impairment is identified as siltation.

Part 1 - NONDISCHARGE ALTERNATIVES EVALUATION

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

E & S Plan	PCSM/SR Plan	
Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used prior to, during, and after earth disturbance activities that have been incorporated into your E & S Plan based on the site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used after construction that have been incorporated into the PCSM/SR Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	
An alternative location, configuration or location of discharge was not utilized since upgrades are required at these existing sites; however, LOD is minimized. Regulations do not require a riparian forest buffer due to proximity to site.	An alternative location, configuration or location of discharge was not utilized since upgrades are required at these existing sites; however, LOD is minimized. Regulations do not require a riparian forest buffer due to proximity to site. No BMPS proposed, therefore no infiltration and water reuse is applicable.	
Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Limited Disturbed Area Limiting Extent & Duration of Disturbance (Phasing, Sequencing) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Other	Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Low Impact Development (LID / BSD) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Infiltration Water Reuse Other Site Restoration	
Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during construction? ☑ Yes □ No	Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality after construction? ☑ Yes □ No	
If yes, antidegradation analysis is complete. If no, proceed to Part 2.	If yes, antidegradation analysis is complete. If no, proceed to Part 2.	

NAAMANS CREEK

SECTION I. ANTIDEGRADATION ANALYSIS

This section must be completed where earth disturbance activities will be conducted in the watershed of a surface water with an existing or designated use of exceptional value or high quality pursuant to Chapter 93 (relating to water quality standards), projects where any part is located in an exceptional value wetland in accordance with 25 Pa. Code § 105.17, and projects where any part is located in the watershed of an impaired surface water where the cause of impairment is identified as siltation.

Part 1 - NONDISCHARGE ALTERNATIVES EVALUATION

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

E & S Plan	PCSM/SR Plan	
Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used prior to, during, and after earth disturbance activities that have been incorporated into your E & S Plan based on the site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used after construction that have been incorporated into the PCSM/SR Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	
An alternative location, configuration or location of	An alternative location, configuration or location of	
discharge was not utilized since upgrades are required	discharge was not utilized since upgrades are required at	
at these existing sites; however, LOD is minimized.	these existing sites; however, LOD is minimized.	
Regulations do not require a riparian buffer or riparian	Regulations do not require a riparian buffer or riparian	
forest buffer due to proximity to site.	forest buffer due to proximity to site.	
Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Limited Disturbed Area Limiting Extent & Duration of Disturbance (Phasing, Sequencing) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Other	Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Low Impact Development (LID / BSD) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Infiltration Water Reuse Other Site Restoration	
Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during construction?	Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality after construction?	
☐ Yes ⊠ No	☐ Yes ⊠ No	
If yes, antidegradation analysis is complete.	If yes, antidegradation analysis is complete.	
If no, proceed to Part 2.	If no, proceed to Part 2.	

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NAAMANS CREEK

PART 2 - ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT)			
If the net change in stormwater discharge from or after construction is not fully managed by nondischarge BMPs, the applicant must utilize ABACT BMPs to manage the difference. The Applicant must specify whether the discharge will occur during construction, post-construction or both, and identify the technologies that will be used to ensure that the discharge will be a non-degrading discharge. ABACT BMPs include but are not limited to:			
E & S Plan	PCSM/SR Plan		
Image: Sediment BMPs: □ Sediment basin with skimmer □ Sediment basin ratio of 4:1 or greater (flow length to basin width) □ Sediment basin with 4-7 day detention □ Flocculants □ Compost Filter Socks □ Compost Filter Sock Sediment Basin □ RCE w/ Wash Rack □ Land disposal: □ Vegetated filters □ Riparian buffers <150ft.	Image: Stormwater reuse technologies: □ Image: Stormwater reuse technologies: □ <t< td=""></t<>		
Are the ABACT BMPs selected sufficient to minimize E&S discharges to the extent that existing or designated surface water uses are protected? ⊠ Yes □ No If yes, Antidegradation analysis is complete. If no, NOI Application will be returned to the Applicant.	Are the ABACT BMPs selected sufficient to achieve no net change and assure that existing or designated surface water uses are protected? ∑ Yes □ No If yes, Antidegradation analysis is complete. If no, NOI Application will be returned to the Applicant.		

PERKIOMEN CREEK

SECTION I. ANTIDEGRADATION ANALYSIS

This section must be completed where earth disturbance activities will be conducted in the watershed of a surface water with an existing or designated use of exceptional value or high quality pursuant to Chapter 93 (relating to water quality standards), projects where any part is located in an exceptional value wetland in accordance with 25 Pa. Code § 105.17, and projects where any part is located in the watershed of an impaired surface water where the cause of impairment is identified as siltation.

Part 1 - NONDISCHARGE ALTERNATIVES EVALUATION

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

E & S Plan	PCSM/SR Plan	
Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used prior to, during, and after earth disturbance activities that have been incorporated into your E & S Plan based on the site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	Check off the environmentally sound nondischarge Bes Management Practices (BMPs) listed below to be used afte construction that have been incorporated into the PCSM/SF Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were no utilized. Also for BMPs checked, provide an explanation o why they were utilized. (Provide the analysis and attack additional sheets if necessary)	
An alternative location, configuration or location of discharge was not utilized since upgrades are required at these existing sites; however, LOD is minimized. Regulations do not require a riparian buffer or riparian forest buffer due to proximity to site.	An alternative location, configuration or location of discharge was not utilized since upgrades are required at these existing sites; however, LOD is minimized. Regulations do not require a riparian buffer or riparian forest buffer due to proximity to site. No BMPS proposed, therefore no infiltration and water reuse is applicable.	
Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Limited Disturbed Area Limiting Extent & Duration of Disturbance (Phasing, Sequencing) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Other	Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Low Impact Development (LID / BSD) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Infiltration Water Reuse Other Site Restoration	
Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during construction?	Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality after construction? ⊠ Yes □ No	
If yes, antidegradation analysis is complete. If no, proceed to Part 2.	If yes, antidegradation analysis is complete. If no, proceed to Part 2.	

SCHUYLKILL RIVER

SECTION I. ANTIDEGRADATION ANALYSIS

This section must be completed where earth disturbance activities will be conducted in the watershed of a surface water with an existing or designated use of exceptional value or high quality pursuant to Chapter 93 (relating to water quality standards), projects where any part is located in an exceptional value wetland in accordance with 25 Pa. Code § 105.17, and projects where any part is located in the watershed of an impaired surface water where the cause of impairment is identified as siltation.

Part 1 - NONDISCHARGE ALTERNATIVES EVALUATION

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

E & S Plan	PCSM/SR Plan	
Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used prior to, during, and after earth disturbance activities that have been incorporated into your E & S Plan based on the site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used after construction that have been incorporated into the PCSM/SR Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	
An alternative location, configuration or location of discharge was not utilized since upgrades are required at these existing sites; however, LOD is minimized. Regulations do not require a riparian buffer or riparian forest buffer due to proximity to site.	An alternative location, configuration or location of discharge was not utilized since upgrades are required at these existing sites; however, LOD is minimized. Regulations do not require a riparian buffer or riparian forest buffer due to proximity to site. No BMPS proposed, therefore no infiltration and water reuse is applicable.	
Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Limited Disturbed Area Limiting Extent & Duration of Disturbance (Phasing, Sequencing) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Other	Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Low Impact Development (LID / BSD) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Infiltration Water Reuse Other Site Restoration	
Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during construction? ☑ Yes □ No	Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality after construction? ☑ Yes □ No	
If yes, antidegradation analysis is complete. If no, proceed to Part 2.	If yes, antidegradation analysis is complete. If no, proceed to Part 2.	

STONY RUN

SECTION I. ANTIDEGRADATION ANALYSIS

This section must be completed where earth disturbance activities will be conducted in the watershed of a surface water with an existing or designated use of exceptional value or high quality pursuant to Chapter 93 (relating to water quality standards), projects where any part is located in an exceptional value wetland in accordance with 25 Pa. Code § 105.17, and projects where any part is located in the watershed of an impaired surface water where the cause of impairment is identified as siltation.

Part 1 - NONDISCHARGE ALTERNATIVES EVALUATION

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

E & S Plan	PCSM/SR Plan	
Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used prior to, during, and after earth disturbance activities that have been incorporated into your E & S Plan based on the site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used after construction that have been incorporated into the PCSM/SR Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	
An alternative location, configuration or location of discharge was not utilized since upgrades are required at these existing sites; however, LOD is minimized. Regulations do not require a riparian buffer or riparian forest buffer due to proximity to site.	An alternative location, configuration or location of discharge was not utilized since upgrades are required at these existing sites; however, LOD is minimized. Regulations do not require a riparian buffer or riparian forest buffer due to proximity to site. No BMPS proposed, therefore no infiltration and water reuse is applicable.	
Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Limited Disturbed Area Limiting Extent & Duration of Disturbance (Phasing, Sequencing) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Other	Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Low Impact Development (LID / BSD) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Infiltration Water Reuse Other Site Restoration	
Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during construction? ⊠ Yes □ No	Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality after construction? ⊠ Yes □ No	
If yes, antidegradation analysis is complete. If no, proceed to Part 2.	If yes, antidegradation analysis is complete. If no, proceed to Part 2.	

TOHICKON CREEK

SECTION I. ANTIDEGRADATION ANALYSIS

This section must be completed where earth disturbance activities will be conducted in the watershed of a surface water with an existing or designated use of exceptional value or high quality pursuant to Chapter 93 (relating to water quality standards), projects where any part is located in an exceptional value wetland in accordance with 25 Pa. Code § 105.17, and projects where any part is located in the watershed of an impaired surface water where the cause of impairment is identified as siltation.

Part 1 - NONDISCHARGE ALTERNATIVES EVALUATION

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

E & S Plan	PCSM/SR Plan					
Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used prior to, during, and after earth disturbance activities that have been incorporated into your E & S Plan based on the site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)	Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used after construction that have been incorporated into the PCSM/SR Plan based on your site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary)					
An alternative location, configuration or location of	An alternative location, configuration or location of					
discharge was not utilized since upgrades are required	discharge was not utilized since upgrades are required at					
at these existing sites; however, LOD is minimized.	these existing sites; however, LOD is minimized.					
Regulations do not require a riparian buffer or riparian	Regulations do not require a riparian buffer or riparian					
forest buffer due to proximity to site.	forest buffer due to proximity to site.					
Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Limited Disturbed Area Limiting Extent & Duration of Disturbance (Phasing, Sequencing) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Other	Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Low Impact Development (LID / BSD) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Infiltration Water Reuse Other Site Restoration					
Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during construction?	Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality after construction?					
☐ Yes ☐ No	☐ Yes ⊠ No					
If yes, antidegradation analysis is complete.	If yes, antidegradation analysis is complete.					
If no, proceed to Part 2.	If no, proceed to Part 2.					

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TOHICKON CREEK

PART 2 - ANTIDEGRADATION BEST AVAILAB	LE COMBINATION OF TECHNOLOGIES (ABACT)
applicant must utilize ABACT BMPs to manage the difference	onstruction is not fully managed by nondischarge BMPs, the e. The Applicant must specify whether the discharge will occur he technologies that will be used to ensure that the discharge t are not limited to:
E & S Plan	PCSM/SR Plan
Image: Sediment BMPs: □ Sediment basin with skimmer □ Sediment basin ratio of 4:1 or greater (flow length to basin width) □ Sediment basin with 4-7 day detention □ Flocculants □ Compost Filter Socks □ Compost Filter Sock Sediment Basin □ RCE w/ Wash Rack □ Land disposal: □ Vegetated filters □ Riparian buffers <150ft.	Image: Stormwater reuse technologies: □ Image: Stormwater reuse technologies: □ <t< td=""></t<>
Are the ABACT BMPs selected sufficient to minimize E&S discharges to the extent that existing or designated surface water uses are protected? ☑ Yes □ No If yes, Antidegradation analysis is complete. If no, NOI Application will be returned to the Applicant.	Are the ABACT BMPs selected sufficient to achieve no net change and assure that existing or designated surface water uses are protected? ☑ Yes □ No If yes, Antidegradation analysis is complete. If no, NOI Application will be returned to the Applicant.

VALLEY CREEK

SECTION I. ANTIDEGRADATION ANALYSIS

This section must be completed where earth disturbance activities will be conducted in the watershed of a surface water with an existing or designated use of exceptional value or high quality pursuant to Chapter 93 (relating to water quality standards), projects where any part is located in an exceptional value wetland in accordance with 25 Pa. Code § 105.17, and projects where any part is located in the watershed of an impaired surface water where the cause of impairment is identified as siltation.

Part 1 - NONDISCHARGE ALTERNATIVES EVALUATION

- Minimize accelerated erosion and sedimentation during the earth disturbance activity
- Achieve no net change from pre-development to post-development volume, rate and concentration of pollutants in water quality

E & S Plan	PCSM/SR Plan					
Check off the environmentally sound nondischarge Best Management Practices (BMPs) listed below to be used prior to, during, and after earth disturbance activities that have been incorporated into your E & S Plan based on the site analysis. For non-discharge BMPs not checked, provide an explanation of why they were not utilized. Also for BMPs checked, provide an explanation of why they were utilized. (Provide the analysis and attach additional sheets if necessary) An alternative location, configuration or location of discharge was not utilized since upgrades are required at these existing sites; however, LOD is minimized. Regulations do not require a riparian buffer or riparian forest buffer due to proximity to site.	Management Practices (BMPs) listed below to be used after					
Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Limited Disturbed Area Limiting Extent & Duration of Disturbance (Phasing, Sequencing) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Other	Nondischarge BMPs Alternative Siting Alternative location Alternative configuration Alternative location of discharge Low Impact Development (LID / BSD) Riparian Buffers (150 ft. min.) Riparian Forest Buffer (150 ft. min.) Infiltration Water Reuse Other Site Restoration					
Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality during construction? ☑ Yes □ No	Will the non-discharge alternative BMPs eliminate the net change in rate, volume and quality after construction? ☑ Yes □ No					
If yes, antidegradation analysis is complete. If no, proceed to Part 2.	If yes, antidegradation analysis is complete. If no, proceed to Part 2.					

SECTION J. COMPLIANCE HISTORY REVIEW								
Is/was the applicant(s) in violation of any Department regulation, order, schedule of compliance or permit or in violation of any department regulated activities within the past five years? □ Yes □ No								
If yes, provide the permit number or facility name, a brief description of the violation, the compliance schedule (including dates and steps to achieve compliance) and the current compliance status. (Attach additional information on a separate sheet, when necessary)								
Permit Program or Activity: Brief Description of non-compliance:	_ Permit Number (if applicable):							
Steps taken to achieve compliance	Date(s) compliance achieved							
	l							
Current Compliance Status: In-Compliance] In Non-Compliance							
If in non-compliance, attach schedule for achieving compliance	Э.							

SECTION K. CERTIFICATION BY PERSON PREPARING E&S AND PCSM/SR PLANS

I do hereby certify to the best of my knowledge, information, and belief, that the Erosion and Sediment Control and PCSM/Site Restoration Plans are true and correct, represent actual field conditions, and are in accordance with the 25 Pa. Code Chapters 78/78a and 102 of the Department's rules and regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Print Name Shiny Mathew	Signature		Professional Seal
Company JMT			REGISTERED A
Address 1600 Market Street, Suite 520			PROFESSIONAL PROFESSIONAL PROFESSIONAL
Phone 215-496-4780			
Most Recent DEP Training Attended Lo	cation	Date	PEOB2407
NDPES Workshop M	onroe County	02/20	SY LING
e-Mail Address smathew@jmt.com			Army M. Mathew

EXPEDITED REVIEW PROCESS

In addition to the certification required above, applicants using the expedited permit review process must attach an E&S and PCSM/Site Restoration Plans developed and sealed by a licensed professional engineer, surveyor or professional geologist. The plans shall contain the following certification:

I do hereby certify to the best of my knowledge, information, and belief, that the E & S Control and PCSM/SR BMPs are true and correct, represent actual field conditions and are in accordance with the 25 Pa. Code Chapters 78 / 78a and 102 of the Department's rules and regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SECTION L. APPLICANT CERTIFICATION

Applicant Certification

I certify under penalty of law, as provided by 18 Pa. C.S.A. § 4904, that this application and all related attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my own knowledge and on 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. The responsible official's signature also verifies that the activity is eligible to participate in the ESCGP, and that the applicant agrees to abide by the terms and conditions of the permit. BMP's, E&S Plan, PPC Plan, PCSM Plan, and other controls are being or will be, implemented to ensure that water quality standards and effluent limits are attained.

I grant permission to the agencies responsible for the permitting of this work, or their duly authorized representative to enter the project site for inspection purposes. I will abide by the conditions of the permit if issued and will not begin work prior to permit issuance.

(For individuals no indication of title is necessary, choose the box below. All others proceed to the next paragraph)

☐ Individual; proceed to signature portion.

I hereby certify under penalty of law, as provided by 18 Pa. C.S.A. § 4904, that I am the person who is responsible for decision-making regarding environmental compliance functions for <u>Adelphia Gateway, LLC</u>, the manager of one or more manufacturing, production, or operating facilities of the applicant and am authorized to make management decisions which govern the operation of regulated facility including having explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure the applicant's long term environmental compliance with environmental laws and regulations; and I am responsible for ensuring that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements.

(choose one of the following; not applicable for individuals):	
│ │ │ │ │ │ │ │ │ │ │ │ │ │ │ │ │ │ │	ent 🗌 secretary
	Corporation/Company
Entity name	
The member or manager of	LLC
The general partner of partnership/LP	/LLP
The principal executive officer or ranking elected official of	Municipality/State/Federal/other public agency
Power of Attorney/delegation of contractual authority (docu must be provided) for	mentation supporting delegation of contracting authority
Entity name	
Mark F. Valori, Vice President	
Print Name and Title of Applicant	Print Name and Title of Co-Applicant (if applicable)
mar a	
Signature of Applicant	Signature of Co-Applicant
03/11/2019	21
Date Application Signed	Date Application Signed
Sworn to and subscribed to before me this	Commonwealth of Pennsylvania
11th day of March, 29 19	County of
Jani S. Castello	My Commission expires
Notary Public	
AFFIX SEAL	
SAFFIX SEAL	
LORI S. CASTELLO ID# 2353137 NOTARY PUBLIC STATE OF NEW JERSEY	1 .
MY COMMISSION EXPIRES 12-4-21	
đ.	
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	1)

SECTION M. ADDITIONAL CONTACT INFORMATION									
Contact's Last Name	First Name	MI	Phone						
			FAX						
Mailing Address	City		State	ZIP + 4					
e-Mail Address									

Summary of Bio-Infiltration BMPs														
Infiltration Information					Drainage Information			BMP Information						
Proposed Structural bio-Infiltration BMPs (site specific)	Measured Infiltration Rate ¹ (in./hr)	Factor of safety (min. of 2)	Design Infiltration rate (in./hr)	De-watering time ² (hr)	Elevation of limiting zone-water table bedrock, etc. ³	(sq. ft)		area	Volume of runoff tributary to BMP during the 2yr/24 hr design storm ⁴ (cf)	Calculated removed volume (cf)	Maximum water surface elevation in BMP from 2yr storm ⁶	Infiltration elevation bottom of bed/basin ⁶	Elevation of infiltration test ⁷	Elevation of E&S sediment basin bottom (if applies)
Transco: Subsurface Infiltration Bed	0.26	2	0.13	71	N/A	33,410	6,446	4,385	3,233	N/A	N/A	N/A	N/A	N/A
Marcus Hook: Vegetated MRC BMP	N/A	N/A	N/A	N/A	N/A	95,997	22,777	16,833	18,619	N/A	N/A	N/A	N/A	N/A
Quakertown: Non-vegetated MRC BMP	N/A	N/A	N/A	N/A	N/A	47,481	15,068	3,755	6,451	N/A	N/A	N/A	N/A	N/A

All information should be based on the 2-yr/24-hr storm.

Provide page numbers from the stormwater narrative identifying the location of the above information.

¹The infiltration testing information should be located on the plan view of the PCSM plan and should include infiltration test elevation and rate ²Can include active infiltration time-dewatering time should not exceed 72 hours after the 2-yr/24-hr storm

³Depth to limiting zone is recommended to be at least 2 ft below infiltration

⁴The value should be greater than or equal to the volume to be infiltrated or managed by the BMP

⁶A maximum of 2 ft hydraulic head is recommended

⁷Provide supporting field notes/documentation from soil evaluation

Any deviation from the recommendations above should be adequately justified by a qualified professional and included with the application.

Note: This chart is for summary purposes only and should be consistent with all design calculations and worksheets.