8000-PM-OOGM0006 9/2018
Notice of Intent

pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

## 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 INSTRUCTIONS PROVIDED IN THIS PERMIT APPLICATION PACKAGE BEFORE COMPLETING THIS FORM. PLEASE PRINT OR TYPE INFORMATION IN BLACK OR BLUE INK.						
SEC	TION	A. APPLICATION TY	PE			
Check one:						
NEW ⊠ RENEWAL □ MAJOR MO	DIFI	CATIONS (Provide ESC	CGP n	number) 🗌		
$\textbf{PHASED} \ \square \ \text{(check only if applicable; } \textit{note: Most}$	proje	cts are not submitted as	s phas	ed projects)		
Check one: E	XPEI	DITED STAI	NDAR	D 🗵		
If an Expedited Review Process being requested Refer to Section D - Expedited Review Process of						
SECT	ION I	B. CLIENT INFORMAT	ION			
Applicant's Last Name (If applicable)	Firs	t Name	MI	Telephone No	D.	
Organization Name or Registered Fictitious Name				Telephone No		
PennEast Pipeline Company, LLC				610-373-7999	9	
DEP Client ID No.						
Headquarters Mailing Address	•	City		State	ZIP Code	
835 Knitting Mills Way	Wyomissing			PA	19610	
Email Address ddalessandro@ugies.com						
Co-Applicant's Last Name (If applicable)	t Name	MI	Telephone No.			
Organization Name or Registered Fictitious Name		Telephone No.				
Address		City		State	ZIP Code	
Email Address						

SECTION C. SITE INFORMATION									
Is there	Is there an existing ESCGP associated with this site?   Yes No If yes, Permit No.								
Has a	well permit ap	oplication been submit	ted for this site?	Yes 🛛 No If yes, Per	mit N	lo			
Does tl	nis site have a	a 911 address? 🗌 Ye	es 🗌 No If yes, <u>pro</u>	vide site location addre	ess.				
Site Na	-								
PennE	ast Pipeline F	Project							
Site Lo See Se	cation ection 1-4			Site No. (if another po	ermit	has bee	en issue	ed for the site)	
Site Lo	cation – City				Stat	e	ZIP (	Code	_
	ection 1-4								
From Will 309/Tunk	kes-Barre to the hannock Highwa	ay. After 1 mile, turn right or	Upper Demunds Road.	At the intersection with State Immediately turn right on Hil connect and the start of the	debrar	ndt Road.	After 0.7		
after 1.3 i	miles. Turn left o	nto Apples Church Road af	ter 1.9 miles. Turn right o	n on PA-378. Turn left onto E into PA-412 South after 0.4 i ive at the end of the propose	miles. 7	Turn left o	nto PA-2	12 East/PA-412 South	
Primar	y Location	County Luzerne, Carbon, Monroe, Northampton and Bucks	Municipality See Section 1-4			City	Boro	Twp. ⊠	
SECTION D. EXPEDITED REVIEW									
I. Expedited Review Eligibility									
<ol> <li>Is any part of the project 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), in an exceptional value wetland in accordance with 25 Pa. Code § 105.17, or in the watershed of an impaired surface water where the cause of the impairment is identified as siltation?</li> </ol>									
2.	2. Will the project in which the well pad will be constructed be in or on a floodplain? ☐ Yes ☒ No								
3. Is any earth disturbance located or proposed to be located on land known to be contaminated by the release of regulated substances as defined in Section 103 of Act 2, 35 P.S. § 6026.103? ☐ Yes ☐									
4.	4. Will naturally occurring geologic formations or soil conditions provide hazards to the project or surrounding environment or have the potential to cause or contribute to pollution when disturbed?								
5.	Do any unre	solved non-compliand	ce issues exist with t	he applicant or the fac	ility?			Yes 🛛 No	
6. Is the project a transmission project?							Yes No		

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

SECTION E. PROJECT INFORMATION								
1. Total Project	ct Area/Project Site (Ac):	1,323.2	Total Dis	sturbed Area (	(Ac):	1,301.1		
Increased distu	Increased disturbed acreage (for permit modification only)							
Fee: (For addi Fees.)	Fee: (For additional information regarding fees, refer to NOI Instructions #3 Permit NOI Filing \$ Previously paid in initial 2016 application. See Section 1-3 for justification.							
2. Project Nan	2. Project Name: PennEast Pipeline Project							
3. Project Typ	3. Project Type (Check all that apply)							
Oil/Gas	Well <sup>1</sup>		⊠ Tra	nsmission Fa	cility			
☐ Gatherin	ng Facility		☐ Pro	Processing Facility				
☐ Treatme	nt Facility		☐ We	ll Developme	nt Impoundmen	t		
	ssor Station		☐ Noi	n-FERC regul	ated Transmiss	ion Facility		
□ Pipeline			☐ Gro	ound/Surface	Water Withdraw	al Site		
☐ Storage	Field Facility							
☐ Other								
Project Descript	¹ If Oil/Gas Well; is the well conventional or unconventional? ☐ Conventional ☐ Unconventional ☐ Project Description See Section 1-4 of this ESCGP-3 Application							
	e of pre-application meeting (if c		<u> </u>	<u> </u>	a coordinates	should be in Desimal		
degrees an	e latitude and longitude coordin d North American Datum 1983 or linear projects provide the pro	3. The coording						
Latitude (DI	O) 41.347	I	ongitude (	DD) - 75.945				
Latitude (DI	D) 40.584	l	ongitude (	DD) - 75.193				
Horizontal C	Collection Method: 🛛 GPS	☐ Interpola	ted from U	.S.G.S. Topog	graphic Map	☐ DEP's eMAP		
	5. U.S.G.S. 7.5 min. topographic quadrangle Name (Include a copy of the project area on the 7.5 min quad map)  See Section 1.5 of this ESCGP-3 Application							
6. Will the project be conducted as a phased permit project? ☐ Yes ☐ No If Yes, Include Master Site Plan Estimated Timetable for Phased Projects. ☐ Additional sheet(s) attached.								
Phase No. or Name	Description	Т	otal Area	Disturbed Area	Start Date	End Date		

7.	List existing and previous land use for a minimum of the previous 5 years. See Section 2-1.
8.	Other Pollutants: Will the stormwater discharge contain pollutional substances other than sediment?   Yes   No
	If yes, explain and provide any available quantitative data.
9.	Will fuels, chemicals, solvents, other hazardous waste or materials be used or stored on site during earth disturbance activities or will Horizontal Directional Drilling (HDD) activities be conducted?
	Yes No (If yes, Preparedness, Prevention and Contingency (PPC) Plan must be maintained on site during earth disturbance. See NOI Instructions, E.9 PPC Plan Guidance for further information.)
10.	Is the project in the watershed of an impaired surface water where the cause of the impairment is identified as siltation?
	Yes No (If yes, show how the project will not result in a net change in volume, rate or water quality. See section I below, and E.10 of NOI instructions.) See Section 2-1, Table 2.2-1.
11.	Are there potentially hazardous naturally occurring geological or soil conditions in any portion of the project or surrounding area? Yes $\boxtimes$ No $\square$
	If yes, do the potentially hazardous geologic or soil conditions have the potential to cause or contribute to pollution as a result of the proposed earth disturbance activities?
	If no, provide an explanation.  See Section 2-1, Appendix 4 for Geologic Hazard Mitigation Plan.
	If yes, Geologic Hazard Mitigation Plan must be attached and explain where in this application details are provided.
12.	Has the Act 14 Municipal Notification and proof of receipt of notification been attached to the NOI?
	Yes $\boxtimes$ No $\square$ (If not, the NOI is not complete, see E.12 and #4 Municipal Notification in the NOI Instructions for additional guidance.)
13.	Has the PNDI receipt been attached to the NOI?
	Yes $\boxtimes$ No $\square$ (If not, the NOI is not complete, see E.13 and #5 PNHP in the NOI Instructions for additional guidance.)
14.	Have the E&S Plan and PCSM/SR Plan been planned and designed to be consistent?  Yes ☑ No □
15.	Have existing and/or proposed Riparian Forest Buffers been identified?
	Yes N/A (If yes, they must be shown on the E&S Plan as well as the PCSM/SR Plans.)
16.	Have antidegradation implementation requirements for special protection waters been addressed?
	Yes No No N/A (If yes, antidegradation requirements must be included in the plan.)
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 □

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18. Receiving Waters	hapter 93, Designated Use Stream	Chapter 93, Existing Use Stream				
I rout Brook (CWF, MF), Abraham's Creek (CWF,	lassification	Classification				
MF), Toby Creek (CWF, MF), UNT Susquehanna River (CWF, MF), Susquehanna River (WWF, MF), Gardner Creek (CWF, MF), Mill Creek (CWF, MF),	☐ HQ ☑ EV ☑ Other <u>CWF, MF; WWF, M</u> F	$\boxtimes$ HQ $\boxtimes$ EV $\boxtimes$ Other $\underline{\text{CWF, MF; WWF, MF}}$				
	Siltation-impaired	Siltation-impaired				
River (HQ-CWF, MF), Lime Hollow (HQ-CWF, MF).	] HQ	☐ HQ ☐ EV ☐ Other				
(HQ-CWF, MF), Hawk Run (HQ-CWF, MF), Laurel Run (HQ-CWF, MF), Mud Run (HQ-CWF, MF), Panther Creek (HQ-CWF, MF), Stony Creek (EV, MF), Yellow Run (EV, MF), Wild Creek (EV, MF),	] Siltation-impaired	☐ Siltation-impaired				
(Fig-CWI, IVII), borger Creek (CWI, IVII), buckwila	] HQ	☐ HQ ☐ EV ☐ Other				
Creek (CWF, MF), Aquashicola Creek (HQ-CWF, MF), Indian Creek (CWF, MF), Hokendauqua Creek (CWF, MF), Monocacy Creek (HQ-CWF, MF), East Branch Monocacy Creek (HQ-CWF, MF), Shoeneck	] Siltation-impaired	☐ Siltation-impaired				
Creek (WWF, MF), Bushkill Creek (HQ-CWF, MF), UNT Lehigh River (CWF, MF), Lehigh River (WWF, MF), Bull Run (CWF, MF), Frya Run (HQ-CWF, MF),	] HQ [] EV [] Other	☐ HQ ☐ EV ☐ Other				
	Siltation-impaired	☐ Siltation-impaired				
Secondary Receiving Water Secondary	econdary Chapter 93, Designated Use	Secondary Existing Use				
Name of Municipal or Private Separa	rate Storm Sewer Operator, if applicable.					
N/A						
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.

Typical pipeline BMPs from the E&S Manual that are proposed include waterbars, trench plugs, sediment barriers (compost filter socks), rock filter outlets, erosion control blanket, rock construction entrances, broad-based dips, temporary equipment bridges, timber mats, diversion channels, temporary slope pipes, level spreaders, mulch, and seed. An appropriate sediment removal device (filter bag, dewatering structure) and well-vegetated area will be utilized for trench and hydrostatic test dewatering. Antidegradation Best Available Combination of Technolgies (ABACT) BMPs, including compost filter socks and extended rock construction entrances with daily maintenance, will be utilized in HQ/EV watersheds.

Alternative approved BMPs (PADEP alternative E&S and PCSM BMPs version 1.4 dated May 15, 2019) that are proposed include stacking compost filter socks to equal larger diameter compost socks, foam trench breakers, sock diversions, staked compost sock ring around pumped water filter bag in HQ/EV watersheds, sump and compost filter sock at waterbar outlets, and compost filter sock J-hooks.

Additional information about the proposed BMPs are discussed in the Erosion and Sediment Control Plan.

### 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:
٨	Thermal Impacts Analysis
u.	
	Explain how thermal impacts associated with this project were avoided, minimized, or mitigated.
	Clearing and grading associated with the pipeline construction may result in temporary loss of tree canopy and riparian vegetation along surface waters and wetlands, potentially resulting in thermal impacts from the loss of shading. However, the thermal impacts will be minimized by limiting the construction ROW to 75 feet, where possible, at wetlands and limiting the maintained permanent ROW to 10 feet at wetlands.
	In streams and wetlands, trees and brush will be cut just above or to ground level, leaving the stumps and root systems intact. Tree stumps will be preserved to the maximum extent practicable and will be removed only over the trenchline and where the stumps present a safety hazard for construction. Leaving stumps and root systems in this manner will promote re-growth in some species.
	Once pipeline construction activities are complete, disturbed areas will be restored to pre-construction contours and seeded as described in the E&SCP. Temporary workspace disturbed for construction will be allowed to re-establish with woody and herbaceous vegetation species. PennEast Pipeline Company, LLC will plant trees within the temporary workspace of riparian buffers and forested wetlands.
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? $\square$ Yes $\square$ 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? $\square$ Yes $\square$ 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.
	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 <b>AND</b> "No" to #3 and #4, provide an attachment to demonstrate how the requirements of §102.14 are met.
	Please refer to riparian buffer waiver request in ESCGP-3 Section 1-7.

## SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) AND/OR SITE RESTORATION(SR) PLAN See NOI Instructions for additional guidance with PCSM Plans

		See NOI Instructions for	or additional guidance with	n PCSM Plans	
constructio proposed ii for conver <i>Manual)</i> (3	n/maintenanc n the PCSM/S ntional operat 63-0300-002)	e, promote pollutant reduction SR Plan must be designed in a stions and the <i>Pennsylvania</i>	on, and preserve the integrit accordance with Ch. 102, Cl Stormwater Best Manage re utilized for the proposed p	ution, infiltrate runoff, not requiry of stream channels. All PCSIn. 78a for unconventional operatiment Practices Manual (Storm roject, they must have prior appropriate the strength of the s	M/SR BMPs tions, Ch. 78 nwater BMP
	ruction is com conditions? [			ored to meadow in good conditi	on or better,
	SM narrative toration plan.	and drawings for remaining i	impervious area. Also includ	le a map showing the proposed	contours of
required by	subsection 'a		e (e.g. partial restoration or o	n, list the stages and provide the changes to the amount of compaddition to the drawings.	
	EXAMPLE				
	Stage No	Stage Name	PCSM Plan	SR Plan	
	Stage 1				
	Stage 2				
	Stage 3				
	Stage 4				
Act 167 (	Consistency	. Check those that apply.		1	_
	n Act 167 Pla	• • •			
		M/SR Plan is consistent with	an applicable approved Act	167 Plan.	
	-	for all approved Act 167 Stor	rmwater Management Plans	. (Use additional sheets if neces	ssary)
	Plan Name unty Act 167 Wat	tershed Management Plan	Date Adopted June 2010	Consistency Letter Included	
Lehigh Valle Manageme		mission Act 167 Watershed	June 15, 2006	Verification Report Included	
		letter is not required if a vei ither sub paragraph 1, 2, or 3		See NOI Instructions. The PC ply.	SM/SR Plan
1.	with all	requirements pertaining to rapproved by DEP on or after Ja	ite, volume, and water qualit	PCSM/SR Plan, in its entirety, in the sentirety, in the sentire of	Management (
2.	Stormw Chapte stormw or to a	water BMP Manual. For project or 78 or Chapter 78a (well pactater management requirement condition of meadow in good	cts involving oil and gas ac ds) or pipelines and other s nts are met for all areas tha condition or better. [Note: F	om sections 102.8(g)(2) and (tivities authorized by a permit is imilar utility infrastructure, post are restored to preconstruction PCSM plans must meet both the sections mentioned in this parage	ssued under construction on conditions volume and
3.	in 102.5 will be	8(g)(2)(iv) and 102.8(g)(3)(iii)	). Demonstrate/explain in th hat is required in 102.8(g)(2)	is developed using approaches e space provided below how the and 102.8(g)(3) or will maintain	his standard

PCSM/SR BMP Alternative Standards:					
Has the alternative BMP or design standard been approved by the Department?					
☐ Yes NOT APPLICABLE					
□ 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?   Yes   No					
If yes, do you have the Standard PCSM Worksheet # 10 attached to show water quality compliance has achieved? ☑ Yes ☐ No					
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.					
Along the mainline pipeline, typical E&S BMPs such as permanent waterbars and erosion control blanket will be left in place as part of site restoration for the project. At the aboveground facility sites, typical PCSM BMPs such as infiltration basins, infiltration berms, level spreaders, and vegetative swales will be used and left in place as part of site restoration for facility sites.					
Check all that apply ☐ PCSM BMPs ☐ SR BMPs					
<b>b.</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.					
Infiltration of runoff collected in the PCSM facilities will mitigate thermal impacts from post construction stormwater. Further, it is not expected that runoff collected in stormwater infiltration basins and discharged overland to the receiving water will be retained for more than 24 hours, thus providing additional mitigation of potential thermal impacts of discharge from the PCSM facilities. Existing shade trees will be preserved to the greatest extent possible, and excessive riprapping and installation of concrete channels is avoided, which will minimize the transfer of heat to the runoff.					
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.					

# NOI Section H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) AND/OR SITE RESTORATION(SR) PLAN

Summary Tables for Supporting Calculation and Measurement Data

and

Summary Descriptions of PCSM/SR BMPs

Wyoming Interconnect (EAST POI)
Wyoming Interconnect (WEST POI)
Springville Interconnect
Auburn & Leidy Interconnects
Kidder Compressor Station
TCO & UGI-LEH Interconnects
Hellertown Launcher
Church Road Interconnects
Blue Mountain Interconnect
Blue Mountain Side Valve
Mainline Block Valve 1
Mainline Block Valve 2
Mainline Block Valve 3

Mainline Block Valve 4 Mainline Block Valve 6 Mainline Block Valve 7

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

Wyoming Interconnect (EAST POI)

### 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: Trout Brook						
Volume Control design storm frequency 2-year Rainfall amount 2.75 inches	Pre-construction	Post Construction	Net Change			
Impervious area (acres)	0.032	0.962	+0.930			
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.102	0.277	+0.175			
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		-0.098	-0.200			
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change			
1) 2-Year/24-Hour	1.87 cfs	0.74 cfs	-1.13 cfs			
2) 10-Year/24-Hour	4.71 cfs	1.34 cfs	-3.37 cfs			
3) 50-year/24-Hour	9.54 cfs	5.85 cfs	-3.69 cfs			
4) 100-year/24-Hour	12.50 cfs	9.50 cfs	-3.00 cfs			

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
☐ Infiltration Trench		□ VC □ RC □ WQ		
☐ Infiltration Bed		☐ VC ☐ RC ☐ WQ		
		$\boxtimes$ VC $\boxtimes$ RC $\boxtimes$ WQ	8,201 cf	0.693
Rain Garden/ Bioretention		☐ VC ☐ RC ☐ WQ		
		∨C □ RC □ WQ	1 <u>0,094</u> cf	<u>0.707</u>
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		☐ VC ☐ RC ☐ WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands	Determon/retermon	□ VC □ RC □ WQ		
Wet Ponds		□ VC □ RC □ WQ		<del></del>
Retention Basin		□ VC □ RC □ WQ	<del></del>	<del></del>
	Mater Ovality			
Sediment and Pollutant Removal	Water Quality Treatment			
□ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		☐ VC ☐ RC ☐ WQ		
☐ Detention Basins		☐ VC ☐ RC ☐ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning		☐ VC ☐ RC ☐ WQ		
Ditches		☐ VC ☐ RC ☐ WQ		
☐ Turnouts		☐ VC ☐ RC ☐ WQ		
☐ Culverts		□ VC □ RC □ WQ		
Roadside Vegetated Filter		□ VC □ RC □ WQ		
Strips				
Stormwater Energy Dissipaters	Infiltration/Recharge			
		□ VC ⊠ RC □ WQ	1 <u>8,295</u> cf	1.4
Riprap Aprons		□ VC □ RC □ WQ		
Upslope Diversions		☐ VC ☐ RC ☐ WQ		
U Other		☐ VC ☐ RC ☐ WQ		
g. Critical PCSM Plan stage				
Identify and list critical stages be present on site.	s of implementation of t	he PCSM Plan for which	a licensed professional	or designee shall
1. The engineer shall inspect	the subsurface infiltration	on facility prior to backfillin	ıa.	
2. Facilities inspected by engi			ıy.	
, , , , ,	, 55			

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

**Wyoming Interconnect (WEST POI)** 

### 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: Trout Brook				
Volume Control design storm frequency 2-year Rainfall amount 2.75 inches	Pre-construction	Post Construction	Net Change	
Impervious area (acres)	0.030	0.310	+0.280	
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.036	0.016	-0.020	
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.015	-0.021	
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change	
1) 2-Year/24-Hour	0.35 cfs	0.19 cfs	-0.16 cfs	
2) 10-Year/24-Hour	0.75 cfs	0.39 cfs	-0.36 cfs	
3) 50-year/24-Hour	1.43 cfs	0.72 cfs	-0.71 cfs	
4) 100-year/24-Hour	1.84 cfs	0.92 cfs	-0.92 cfs	

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
☐ Infiltration Trench		☐ VC ☐ RC ☐ WQ		
☐ Infiltration Bed		☐ VC ☐ RC ☐ WQ		
		$\boxtimes$ VC $\boxtimes$ RC $\boxtimes$ WQ	P <u>OI EA</u> ST	P <u>OI EAS</u> T
Rain Garden/ Bioretention		☐ VC ☐ RC ☐ WQ		
		∨C □ RC □ WQ	P <u>OI EA</u> ST	P <u>OI EAS</u> T
Natural Area Conservation	Infiltration/Recharge			
<ul><li>Streamside Buffer Zone</li></ul>		☐ VC ☐ RC ☐ WQ		
Wetland Buffer Zone		☐ VC ☐ RC ☐ WQ		
Sensitive Area Buffer Zone		☐ VC ☐ RC ☐ WQ		
Pre-Construction Drainage		□ VC □ RC □ WQ		
Pattern Intact	D : :: /D : ::			
Stormwater Retention	Detention/Retention			
Constructed Wetlands		□ VC □ RC □ WQ	<del></del>	
Wet Ponds		□ VC □ RC □ WQ		
Retention Basin		☐ VC ☐ RC ☐ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
□ Vegetated Filter Strips		☐ VC ☐ RC ☐ WQ		
☐ Compost Filter Sock		☐ VC ☐ RC ☐ WQ		
☐ Detention Basins		☐ VC ☐ RC ☐ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning		☐ VC ☐ RC ☐ WQ		
Ditches		☐ VC ☐ RC ☐ WQ		
☐ Turnouts		□ VC □ RC □ WQ		
Culverts		□ VC □ RC □ WQ		
Roadside Vegetated Filter		□ VC □ RC □ WQ		
Strips				
Stormwater Energy Dissipaters	Infiltration/Recharge			
Level Spreaders		□ VC □ RC □ WQ		
Riprap Aprons		□ VC □ RC □ WQ	<del></del>	
Upslope Diversions		□ VC □ RC □ WQ	<del></del>	
Other		☐ VC ☐ RC ☐ WQ		
<ul> <li>g. Critical PCSM Plan stage</li> <li>Identify and list critical stages</li> </ul>		he PCSM Plan for which	a licensed professional	or designee shall
be present on site.	•		·	
<ol> <li>Engineer to inspect the sub</li> </ol>				
<ol><li>Facilities inspected by engi</li></ol>	neer prior to raising gra	des to invert level.		

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

#### **Springville Interconnect**

### 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: Toby Creek			
Volume Control design storm frequency 2-year Rainfall amount 2.75 inches	Pre-construction	Post Construction	Net Change
Impervious area (acres)	0.020	0.930	+0.910
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.169	0.308	+0.139
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.126	-0.043
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change
1) 2-Year/24-Hour	12.51 cfs	11.62 cfs	-0.89 cfs
2) 10-Year/24-Hour	29.29 cfs	27.45 cfs	-1.84 cfs
3) 50-year/24-Hour	57.02 cfs	53.36 cfs	-3.66 cfs
4) 100-year/24-Hour	73.77 cfs	68.95 cfs	-4.82 cfs

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
☐ Infiltration Trench		□ VC □ RC □ WQ		
☐ Infiltration Bed		☐ VC ☐ RC ☐ WQ		
		$oxed{oxed}$ VC $oxed{oxed}$ RC $oxed{oxed}$ WQ	<u>3,823</u> cf	1.788
☐ Rain Garden/ Bioretention		☐ VC ☐ RC ☐ WQ		
		∨C □ RC □ WQ	<u>4,028 c</u> f	<u>4.414</u>
Natural Area Conservation	Infiltration/Recharge			
☐ Streamside Buffer Zone		☐ VC ☐ RC ☐ WQ		
		☐ VC ☐ RC ☐ WQ		
<ul><li>Sensitive Area Buffer Zone</li></ul>		☐ VC ☐ RC ☐ WQ		
☐ Pre-Construction Drainage		□ VC □ RC □ WQ		
Pattern Intact				
Stormwater Retention	Detention/Retention			
<ul><li>Constructed Wetlands</li></ul>		☐ VC ☐ RC ☐ WQ		
		☐ VC ☐ RC ☐ WQ		
Retention Basin		☐ VC ☐ RC ☐ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips		□ VC □ RC □ WQ		
Compost Filter Sock		□ VC □ RC □ WQ		
☐ Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning	_	□ VC □ RC □ WQ		
Ditches		□ VC □ RC □ WQ		
☐ Turnouts		□ VC □ RC □ WQ		
☐ Culverts		□ VC □ RC □ WQ		
Roadside Vegetated Filter				
Strips		□ VC □ RC □ WQ		
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.				
<ol> <li>Engineer shall inspect installation and stabilization of Swales 3 and 4, erosion control blanket, rock filters, riprap aprons and stilling basin.</li> <li>Engineer shall inspect the basin installation and temporary outlet control structure.</li> <li>Engineer shall inspect site and stabilization prior to bringing grades to final elevation.</li> </ol>				

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

**Auburn & Leidy Interconnects** 

### 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: Abraham's Creek				
Volume Control design storm frequency 2-year Rainfall amount 2.63 inches	Pre-construction	Post Construction	Net Change	
Impervious area (acres)	1.170	2.920	+1.750	
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.563	0.879	+0.316	
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.415	-0.148	
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change	
1) 2-Year/24-Hour	8.26 cfs	3.98 cfs	-4.28 cfs	
2) 10-Year/24-Hour	17.78 cfs	16.62 cfs	-1.16 cfs	
3) 50-year/24-Hour	35.35 cfs	28.67 cfs	-6.68 cfs	
4) 100-year/24-Hour	47.76 cfs	37.81 cfs	-9.95 cfs	

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
	militation/Recharge			
Infiltration Trench		UVC □RC □WQ		
☐ Infiltration Bed		□ VC □ RC □ WQ	10 E7E of	4.76
☐ Infiltration Basin		VC	1 <u>8,575</u> cf	4.70
Rain Garden/ Bioretention		□ VC □ RC □ WQ		
Infiltration Berm	1 (1) (5)	☐ VC ☐ RC ☐ WQ	<u> </u>	
Natural Area Conservation	Infiltration/Recharge			
Streamside Buffer Zone		UVC □ RC □ WQ		
Wetland Buffer Zone		□ VC □ RC □ WQ		
Sensitive Area Buffer Zone		□ VC □ RC □ WQ		
<ul><li>☐ Pre-Construction Drainage Pattern Intact</li></ul>		□ VC □ RC □ WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
☐ Wet Ponds		□ VC □ RC □ WQ		
Retention Basin		□ VC □ RC □ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips		□ VC □ RC □ WQ		
Compost Filter Sock		□ VC □ RC □ WQ		
Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning	g-	□ VC □ RC □ WQ		
Ditches		□ VC □ RC □ WQ	<del></del>	
Turnouts		□ VC □ RC □ WQ		
Culverts		□ VC □ RC □ WQ		
☐ Roadside Vegetated Filter				
Strips		□ VC □ RC □ WQ		
Stormwater Energy Dissipaters	Infiltration/Recharge			
Level Spreaders	_	□ VC □ RC □ WQ		
⊠ Riprap Aprons		□ VC ⊠ RC □ WQ	18,575 cf	4.76
☐ Upslope Diversions		□ VC □ RC □ WQ	<u></u>	
○ Other Sediment Trap		□ VC ⊠ RC □ WQ	18,575 cf	4.76
g. Critical PCSM Plan stage	S		. <u>,</u>	
Identify and list critical stages		he PCSM Plan for which	a licensed professional	or designee shall
be present on site.	, , , , , , , , , , , , , , , , , , , ,			3
<ol> <li>Engineer shall inspect sedi</li> <li>Engineer shall inspect insta</li> <li>Engineer shall inspect site</li> <li>Engineer shall inspect final</li> </ol>	alled subsurface infiltrati and stabilization prior to	ion system prior to backfill b bringing grades to final e	ling. elevation.	n.

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

**Kidder Compressor Station** 

### 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: Black Creek Tributary				
Volume Control design storm frequency 2-year Rainfall amount 3.17 inches	Pre-construction	Post Construction	Net Change	
Impervious area (acres)	0.000	8.800	+8.800	
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	2.570	4.299	+1.729	
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		1.729	-0.841	
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change	
1) 2-Year/24-Hour	91.10 cfs	81.33 cfs	-9.77 cfs	
2) 10-Year/24-Hour	172.99 cfs	147.75 cfs	-25.24 cfs	
3) 50-year/24-Hour	302.73 cfs	249.15 cfs	-53.58 cfs	
4) 100-year/24-Hour	379.26 cfs	300.88 cfs	-78.38 cfs	

### 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	□ VC □ RC □ WQ		

	1			
Bio-infiltration areas	Infiltration/Recharge			
☐ Infiltration Trench		☐ VC ☐ RC ☐ WQ		
☐ Infiltration Bed		☐ VC ☐ RC ☐ WQ		
		$\boxtimes$ VC $\boxtimes$ RC $\boxtimes$ WQ	9 <u>7,774</u> cf	<u>18.46</u>
Rain Garden/ Bioretention		□ VC □ RC □ WQ		
☐ Infiltration Berm		□ VC □ RC □ WQ		
Natural Area Conservation	Infiltration/Recharge			
☐ Streamside Buffer Zone		□ VC □ RC □ WQ		
		□ VC □ RC □ WQ		
☐ Sensitive Area Buffer Zone		□ VC □ RC □ WQ		
☐ Pre-Construction Drainage				
Pattern Intact		□ VC □ RC □ WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
☐ Wet Ponds		□ VC □ RC □ WQ		
Retention Basin		□ VC □ RC □ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		□ VC □ RC □ WQ		
Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning	3	□ VC □ RC □ WQ		
Ditches		□ VC □ RC □ WQ		
Turnouts		□ VC □ RC □ WQ		
☐ Culverts		□ VC □ RC □ WQ		
Roadside Vegetated Filter				
Strips		□ VC □ RC □ WQ		
Stormwater Energy Dissipaters	Infiltration/Recharge			
☐ Level Spreaders		□ VC □ RC □ WQ		
Riprap Aprons		□ VC ⊠ RC □ WQ	9 <u>7,774</u> cf	18.46
Upslope Diversions		□ VC □ RC □ WQ		
Other		□ VC □ RC □ WQ		
g. Critical PCSM Plan stage	s			
Identify and list critical stages		he PCSM Plan for which	a licensed professional	or designee shall
be present on site.				
<ol> <li>Engineer shall inspect installation and stabilization of temporary swale, stormwater dention basin (North Basin) less 12 inches of depth, and temporary outlet control structure.</li> <li>Engineer shall inspect culvert installation.</li> <li>Engineer shall inspect drainage piping, manholes, catchbasins and inlets, and swales.</li> <li>Engineer shall inspect stormwater detention basin (South Basin), outlet control structures,</li> </ol>				
associated piping, inlets and of 5. Engineer shall inspect storing structure.	outlets.	,		

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

### **TCO & UGI-LEH Interconnects**

### 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: East Branch of Saucon Creek				
Volume Control design storm frequency 2-year Rainfall amount 3.19 inches	Pre-construction	Post Construction	Net Change	
Impervious area (acres)	0.150	1.560	+1.410	
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.139	0.439	+0.030	
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.056	-0.083	
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change	
1) 2-Year/24-Hour	2.91 cfs	2.33 cfs	-0.58 cfs	
2) 10-Year/24-Hour	7.33 cfs	4.74 cfs	-2.59 cfs	
3) 50-year/24-Hour	13.99 cfs	11.51 cfs	-2.48 cfs	
4) 100-year/24-Hour	17.72 cfs	15.90 cfs	-1.82 cfs	

### 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	□ VC □ RC □ WQ		

Die infiltration areas	Infiltration/Dacharga			
Bio-infiltration areas	Infiltration/Recharge			
☐ Infiltration Trench		☐ VC ☐ RC ☐ WQ	<del></del>	
Infiltration Bed		□ VC □ RC □ WQ	<del></del> ,	
☐ Infiltration Basin		$\boxtimes$ VC $\boxtimes$ RC $\boxtimes$ WQ	1 <u>3,750</u> cf	3.79
Rain Garden/ Bioretention		☐ VC ☐ RC ☐ WQ		
☐ Infiltration Berm		☐ VC ☐ RC ☐ WQ		
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		□ VC □ RC □ WQ	<del></del>	
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
☐ Wet Ponds		□ VC □ RC □ WQ		
Retention Basin		□ VC □ RC □ WQ		
	Matan Ovality			
Sediment and Pollutant Removal	Water Quality Treatment			
□ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		□ VC □ RC □ WQ		
Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning	_	□ VC □ RC □ WQ		
Ditches		□ VC □ RC □ WQ		
Turnouts		□ VC □ RC □ WQ		
Culverts		UC RC WQ		
☐ Roadside Vegetated Filter				
Strips		☐ VC ☐ RC ☐ WQ		
Stormwater Energy Dissipaters	Infiltration/Recharge			
Level Spreaders	Ŭ	□ VC □ RC □ WQ		
☐ Riprap Aprons		□ VC □ RC □ WQ		
☐ Upslope Diversions		□ VC □ RC □ WQ		
		□ VC □ RC □ WQ		
Other	_			
g. Critical PCSM Plan stage				
Identify and list critical stages be present on site.	s of implementation of t	he PCSM Plan for which	a licensed professional	or designee shall
Engineer shall inspect insta	allation of codiment tran	e and compact filter acales	prior to clooring and ar	ubbing
2. Engineer shall inspect first			s prior to clearing and gr	ubbing.
3. Engineer shall inspect site from CS-3.			nal grade and removing	the plug pipe

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

#### **Hellertown Launcher**

### 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: Lehigh River				
Volume Control design storm frequency 2-year Rainfall amount 3.18 inches	Pre-construction	Post Construction	Net Change	
Impervious area (acres)	0.310	0.860	+0.550	
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.238	0.331	+0.093	
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.139	-0.099	
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change	
1) 2-Year/24-Hour	3.94 cfs	2.06 cfs	-1.88 cfs	
2) 10-Year/24-Hour	8.32 cfs	5.40 cfs	-2.92 cfs	
3) 50-year/24-Hour	14.35 cfs	9.26 cfs	-5.09 cfs	
4) 100-year/24-Hour	17.44 cfs	11.11 cfs	-6.33 cfs	

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
☐ Infiltration Trench		□ VC □ RC □ WQ		
☐ Infiltration Bed		□ VC □ RC □ WQ		
		$\boxtimes$ VC $\boxtimes$ RC $\boxtimes$ WQ	4 <u>,876 C</u> F	1.47
Rain Garden/ Bioretention		☐ VC ☐ RC ☐ WQ		
		☑ VC ☐ RC ☑ WQ	3 <u>,480 C</u> F	0.41
Natural Area Conservation	Infiltration/Recharge			
Streamside Buffer Zone		☐ VC ☐ RC ☐ WQ		
		☐ VC ☐ RC ☐ WQ		
☐ Sensitive Area Buffer Zone		□ VC □ RC □ WQ		
Pre-Construction Drainage		□ VC □ RC □ WQ		
Pattern Intact				
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
Wet Ponds		□ VC □ RC □ WQ		
Retention Basin		☐ VC ☐ RC ☐ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
□ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		□ VC □ RC □ WQ		
☐ Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning		□ VC □ RC □ WQ		
Ditches		□ VC □ RC □ WQ		
☐ Turnouts		□ VC □ RC □ WQ		
☐ Culverts		□ VC □ RC □ WQ		
☐ Roadside Vegetated Filter		□ VC □ RC □ WQ		
Strips				
Stormwater Energy Dissipaters	Infiltration/Recharge			
□ Level Spreaders		□ VC ⊠ RC □ WQ	4 <u>,876 C</u> F	<u>1.47</u>
☐ 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.				
<ol> <li>Engineer shall inspect installation and stabilization of diversion berm and erosion control blanket.</li> <li>Engineer shall inspect the basin installation and temporary outlet control structure.</li> <li>Engineer shall inspect final stabilization prior to removal of temporary measures.</li> <li>Prior to drilling holes for permanent riser, downstream level spreader shall be installed and inspected by the Engineer.</li> </ol>				

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

#### **Church Road Interconnects**

### 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: Nancy Run					
Volume Control design storm frequency 2-year Rainfall amount 3.16 inches	Pre-construction	Post Construction	Net Change		
Impervious area (acres)	0.137	1.227	+1.09		
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.091	0.333	+0.242		
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.000	-0.091		
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change		
1) 2-Year/24-Hour	0.808 cfs	0.632 cfs	-0.176 cfs		
2) 10-Year/24-Hour	3.512 cfs	2.703 cfs	-0.809 cfs		
3) 50-year/24-Hour	8.514 cfs	6.386 cfs	-2.128 cfs		
4) 100-year/24-Hour	11.510 cfs	10.050 cfs	-1.460 cfs		

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
☐ Infiltration Trench	minitation/recharge	⊠ VC ⊠ RC ⊠ WQ	2,027 cf	0.210
☐ Infiltration Bed			2 <u>,027                                    </u>	0.210
☐ Infiltration Bed		VC □ RC □ WQ  RC □ WQ  WQ	9,853 cf	0.282
Rain Garden/ Bioretention			9,000 CI	0.202
Infiltration Berm		□ VC □ RC □ WQ		
Natural Area Conservation	Infiltration/Recharge			
Streamside Buffer Zone	minutation, recording o	□ VC □ RC □ WQ		
Wetland Buffer Zone		□ VC □ RC □ WQ		
Sensitive Area Buffer Zone		□ VC □ RC □ WQ		
☐ Pre-Construction Drainage				
Pattern Intact		□ VC □ RC □ WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
☐ Wet Ponds		□ VC □ RC □ WQ		
Retention Basin		□ VC □ RC □ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips		□ VC □ RC □ WQ		
Compost Filter Sock		□ VC □ RC □ WQ		
Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning	g-	□ VC □ RC □ WQ		
Ditches		□ VC □ RC □ WQ		
Turnouts		□ VC □ RC □ WQ		
Culverts		□ VC □ RC □ WQ		
☐ Roadside Vegetated Filter				
Strips		□ VC □ RC □ WQ	<del></del>	
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 stage	 S			
Identify and list critical stages be present on site.		he PCSM Plan for which	a licensed professional	or designee shall
•		6 H 2		
<ol> <li>The engineer shall inspect</li> <li>Engineer shall inspect final</li> </ol>			ıres.	

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

#### **Blue Mountain Interconnect**

### 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: Aquashicola Creek				
Volume Control design storm frequency 2-year Rainfall amount 3.15 inches	Pre-construction	Post Construction	Net Change	
Impervious area (acres)	0.04	0.230	+0.190	
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.074	0.106	+.032	
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.238	-0.001	
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change	
1) 2-Year/24-Hour	1.78 cfs	1.62 cfs	-0.16 cfs	
2) 10-Year/24-Hour	5.17 cfs	4.57 cfs	-0.60 cfs	
3) 50-year/24-Hour	12.92 cfs	11.93 cfs	-0.99 cfs	
4) 100-year/24-Hour	17.83 cfs	17.22 cfs	-0.61 cfs	

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
	minitration/Recharge			
☐ Infiltration Trench ☐ Infiltration Bed		│	014 of	0.95
		⊠ VC ∐ RC ∐ WQ   ⊠ VC ⊠ RC ⊠ WQ	<u>914 cf</u> <u>673 cf</u>	0.95
<ul><li>☑ Infiltration Basin</li><li>☐ Rain Garden/ Bioretention</li></ul>			<u>073 CI</u>	0.93
☐ Infiltration Berm		│	<del></del>	
Natural Area Conservation	Infiltration/Decharge			
Streamside Buffer Zone	Infiltration/Recharge			
		UVC □ RC □ WQ		
Wetland Buffer Zone		VC RC WQ		
Sensitive Area Buffer Zone		□ VC □ RC □ WQ		
☐ Pre-Construction Drainage Pattern Intact		□ VC □ RC □ WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
☐ Wet Ponds		□ VC □ RC □ WQ		
Retention Basin		□ VC □ RC □ WQ	<del></del>	
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips	Troumont	□ VC □ RC □ WQ		
Compost Filter Sock		UVC □ RC □ WQ		
Detention Basins		UVC □ RC □ WQ		
<u> </u>	Infiltration/Recharge			
Access Road Design	minitration/Recharge			
Road Crowning		UVC □ RC □ WQ		<del></del>
Ditches		□ VC □ RC □ WQ	<del></del>	<del></del>
Turnouts		UVC □ RC □ WQ		
Culverts		□ VC □ RC □ WQ	<del></del>	<del></del>
Roadside Vegetated Filter Strips		☐ VC ☐ RC ☐ WQ		
Stormwater Energy Dissipaters	Infiltration/Recharge			
□ Level Spreaders     □ Level Sprea	minitation (Treenlange	□ VC ⋈ RC □ WQ	1,587 cf	0.95
Riprap Aprons		U VC □ RC □ WQ	1,507 CI	0.95
☐ Upslope Diversions		UVC □ RC □ WQ		
Other		U VC □ RC □ WQ		
0 1/1   1 0 0 0 1 1 1				
		ha DCSM Blan for which	a licensed professional	or decigned shall
Identify and list critical stages be present on site.	s of implementation of t	THE PCSIVI PIANT TOT WITHCH	a liceriseu professional	or designee shall
<ol> <li>Engineer shall inspect the subgrade soils in the subsurface stormwater detention system prior to installation of the geotextile fabric and stone base.</li> <li>Final inspection of installed subsurface detention system before backfilling.</li> <li>Final site stabilization prior to bringing grading to final elevations.</li> </ol>				

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

**Blue Mountain Side Valve** 

### 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: Aquashicola Creek					
Volume Control design storm frequency 2-year Rainfall amount 3.15 inches	Pre-construction	Post Construction	Net Change		
Impervious area (acres)	0.000	0.050	+0.050		
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.027	0.040	+0.013		
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.000	-0.027		
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change		
1) 2-Year/24-Hour	0.74 cfs	0.34 cfs	-0.40 cfs		
2) 10-Year/24-Hour	1.67 cfs	0.75 cfs	-0.92 cfs		
3) 50-year/24-Hour	3.17 cfs	2.18 cfs	-0.99 cfs		
4) 100-year/24-Hour	4.04 cfs	3.50 cfs	-0.54 cfs		

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
☐ Infiltration Trench		☐ VC ☐ RC ☐ WQ		
☐ Infiltration Bed		□ VC □ RC □ WQ		
☐ Infiltration Basin		$\boxtimes$ VC $\boxtimes$ RC $\boxtimes$ WQ	<u>1,259</u> cf	0.61
Rain Garden/ Bioretention		□ VC □ RC □ WQ		
Infiltration Berm		☐ VC ☐ RC ☐ WQ		
Natural Area Conservation	Infiltration/Recharge			
Streamside Buffer Zone		□ VC □ RC □ WQ	<del></del>	
Wetland Buffer Zone		□ VC □ RC □ WQ		
Sensitive Area Buffer Zone		□ VC □ RC □ WQ	<del></del>	
<ul><li>Pre-Construction Drainage</li><li>Pattern Intact</li></ul>		□ VC □ RC □ WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
		□ VC □ RC □ WQ		
☐ Retention Basin		☐ VC ☐ RC ☐ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
□ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		□ VC □ RC □ WQ		
☐ Detention Basins		☐ VC ☐ RC ☐ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning		☐ VC ☐ RC ☐ WQ		
Ditches		☐ VC ☐ RC ☐ WQ		
☐ Turnouts		□ VC □ RC □ WQ		
Culverts		☐ VC ☐ RC ☐ WQ		
Roadside Vegetated Filter		□ VC □ RC □ WQ		
Strips Stormwater Francy Discinctors	Infiltration /Deaharma			
Stormwater Energy Dissipaters	Infiltration/Recharge		4.050 -4	0.01
☐ Level Spreaders		□ VC □ RC □ WQ	<u>1,259 c</u> f	<u>0.61</u>
Riprap Aprons		□ VC □ RC □ WQ □ VC □ RC □ WQ	<del></del>	<del></del>
<ul><li>☐ Upslope Diversions</li><li>☐ Other</li></ul>		□ VC □ RC □ WQ		
	<u> </u>			
<ul> <li>g. Critical PCSM Plan stage</li> <li>Identify and list critical stages</li> </ul>		ha DCSM Plan for which	a licensed professional	or decigned shall
be present on site.	s of implementation of t	THE POSITI PIANT TOT WITHOUT	a liceriseu professionar	or designee snan
<ol> <li>Inspection of critical elevations of subsurface detention system (including but not limited to pipe inverts, bottom of stone, and top of stone) prior to backfilling.</li> <li>Final inspection of installed subsurface detention system prior to backfilling.</li> <li>Final site stabilization prior to bringing grading to final elevations.</li> </ol>				

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

#### **Mainline Block Valve 1**

### 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: Susquehanna River					
Volume Control design storm frequency 2-year Rainfall amount 2.57 inches	Pre-construction	Post Construction	Net Change		
Impervious area (acres)	0.003	0.010	+0.007		
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.004	0.006	+0.002		
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.000	-0.004		
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change		
1) 2-Year/24-Hour	0.324 cfs	0.281 cfs	-0.043 cfs		
2) 10-Year/24-Hour	0.599 cfs	0.527 cfs	-0.072 cfs		
3) 50-year/24-Hour	1.030 cfs	0.913 cfs	-0.117 cfs		
4) 100-year/24-Hour	1.282 cfs	1.140 cfs	-0.142 cfs		

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
		$\square$ VC $\square$ RC $\square$ WQ	<u>159 cf</u>	0.06
☐ Infiltration Bed		□ VC □ RC □ WQ		
☐ Infiltration Basin		□ VC □ RC □ WQ		
Rain Garden/ Bioretention		□ VC □ RC □ WQ		
☐ Infiltration Berm		☐ VC ☐ RC ☐ WQ		
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		□ VC □ RC □ WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
		□ VC □ RC □ WQ		
Retention Basin		□ VC □ RC □ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		□ VC □ RC □ WQ		
☐ Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning		□ VC □ RC □ WQ		
Ditches		□ VC □ RC □ WQ		
☐ Turnouts		□ VC □ RC □ WQ		
☐ Culverts		□ VC □ RC □ WQ		
☐ Roadside Vegetated Filter		□ VC □ RC □ WQ		
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 stage	S			
Identify and list critical stages be present on site.	s of implementation of t	he PCSM Plan for which	a licensed professional	or designee shall
A. Explored the III to a contribution	and the sufference of a Company of a sufference of a sufferenc	-996 ( L L. 698		
<ol> <li>Engineer shall inspect the s</li> <li>Engineer shall inspect final</li> </ol>			ures.	
- '	•			

TABLES IN ADDENDUM OF NOI

### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

**Mainline Block Valve 2** 

### 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: Bear Creek					
Volume Control design storm frequency 2-year Rainfall amount 3.20 inches	Pre-construction	Post Construction	Net Change		
Impervious area (acres)	0.010	0.042	+0.032		
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.012	0.020	+0.008		
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.008	-0.004		
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change		
1) 2-Year/24-Hour	0.403 cfs	0.297 cfs	-0.106 cfs		
2) 10-Year/24-Hour	0.819 cfs	0.718 cfs	-0.101 cfs		
3) 50-year/24-Hour	1.481 cfs	1.308 cfs	-0.173 cfs		
4) 100-year/24-Hour	1.882 cfs	1.630 cfs	-0.252 cfs		

### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
		$\boxtimes$ VC $\boxtimes$ RC $\boxtimes$ WQ	<u>430 cf</u>	0.09
☐ Infiltration Bed		☐ VC ☐ RC ☐ WQ		
☐ Infiltration Basin		□ VC □ RC □ WQ		
Rain Garden/ Bioretention		☐ VC ☐ RC ☐ WQ		
☐ Infiltration Berm		☐ VC ☐ RC ☐ WQ		
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		□VC □RC □WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
☐ Wet Ponds		□ VC □ RC □ WQ		
☐ Retention Basin		□ VC □ RC □ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		□ VC □ RC □ WQ		
Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning		☐ VC ☐ RC ☐ WQ		
Ditches		☐ VC ☐ RC ☐ WQ		
☐ Turnouts		☐ VC ☐ RC ☐ WQ		
Culverts		□ VC □ RC □ WQ		
Roadside Vegetated Filter		□ VC □ RC □ WQ		
Strips	1 614 61 150 1			
Stormwater Energy Dissipaters	Infiltration/Recharge			
Level Spreaders		□ VC □ RC □ WQ		
Riprap Aprons		□ VC □ RC □ WQ	<del></del>	<del></del>
Upslope Diversions		□ VC □ RC □ WQ		
Other_		☐ VC ☐ RC ☐ WQ		
<ul> <li>g. Critical PCSM Plan stage</li> <li>Identify and list critical stages</li> </ul>		he PCSM Plan for which	a licensed professional	or designee shall
be present on site.				
1. Engineer shall inspect the	subsurface infiltration fa	cilities prior to backfilling		
<ol> <li>Engineer shall inspect the subsurface infiltration facilities prior to backfilling.</li> <li>Engineer shall inspect final stabilization prior to removal of temporary measures.</li> </ol>				

TABLES IN ADDENDUM OF NOI

#### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

**Mainline Block Valve 3** 

## 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: Lehigh River					
Volume Control design storm frequency 2-year Rainfall amount 3.29 inches	Pre-construction	Post Construction	Net Change		
Impervious area (acres)	0.000	0.040	+0.040		
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.000	0.011	+0.011		
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.00	+0.000		
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change		
1) 2-Year/24-Hour	0.000 cfs	0.000 cfs	0.000 cfs		
2) 10-Year/24-Hour	0.000 cfs	0.000 cfs	0.000 cfs		
3) 50-year/24-Hour	0.004 cfs	0.002 cfs	-0.002 cfs		
4) 100-year/24-Hour	0.031 cfs	0.020 cfs	-0.011 cfs		

#### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
		$\boxtimes$ VC $\boxtimes$ RC $\boxtimes$ WQ	<u>491 cf</u>	0.08
☐ Infiltration Bed		☐ VC ☐ RC ☐ WQ		
Infiltration Basin		□ VC □ RC □ WQ		
Rain Garden/ Bioretention		☐ VC ☐ RC ☐ WQ		
☐ Infiltration Berm		☐ VC ☐ RC ☐ WQ		
Natural Area Conservation	Infiltration/Recharge			
Streamside Buffer Zone		□ VC □ RC □ WQ		
Wetland Buffer Zone		□ VC □ RC □ WQ		
Sensitive Area Buffer Zone		□ VC □ RC □ WQ	<del></del>	<del></del>
Pre-Construction Drainage Pattern Intact		☐ VC ☐ RC ☐ WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
☐ Wet Ponds		☐ VC ☐ RC ☐ WQ		
Retention Basin		☐ VC ☐ RC ☐ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		□ VC □ RC □ WQ		
□ Detention Basins		☐ VC ☐ RC ☐ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning		☐ VC ☐ RC ☐ WQ		
Ditches		☐ VC ☐ RC ☐ WQ		
☐ Turnouts		☐ VC ☐ RC ☐ WQ		
Culverts		□ VC □ RC □ WQ		
Roadside Vegetated Filter		□ VC □ RC □ WQ		
Strips Stormwater Energy Dissipaters	Infiltration/Recharge			
Level Spreaders	inilitiation/Necharge	□ VC □ RC □ WQ		
Riprap Aprons		□ VC □ RC □ WQ	<del></del>	<del></del>
☐ Upslope Diversions				
Other		□ VC □ RC □ WQ		
g. Critical PCSM Plan stage	<u> </u>			
Identify and list critical stages be present on site.		he PCSM Plan for which	a licensed professional	or designee shall
22 p. 232 3 3				
1. Engineer shall inspect the				
<ol><li>Engineer shall inspect final</li></ol>			ures.	

TABLES IN ADDENDUM OF NOI

#### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

#### **Mainline Block Valve 4**

## 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: Aquashicola Creek					
Volume Control design storm frequency 2-year Rainfall amount 3.18 inches	Pre-construction	Post Construction	Net Change		
Impervious area (acres)	0.000	0.060	+0.060		
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.002	0.014	+0.012		
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.000	-0.002		
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change		
1) 2-Year/24-Hour	0.185 cfs	0.180 cfs	-0.005 cfs		
2) 10-Year/24-Hour	0.715 cfs	0.688 cfs	-0.027 cfs		
3) 50-year/24-Hour	1.722 cfs	1.667 cfs	-0.055 cfs		
4) 100-year/24-Hour	2.358 cfs	2.351 cfs	-0.007 cfs		

#### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge			
		⊠ VC ⊠ RC ⊠ WQ	<u>534 cf</u>	0.06
☐ Infiltration Bed		□ VC □ RC □ WQ		
☐ Infiltration Basin		□ VC □ RC □ WQ		
Rain Garden/ Bioretention		□ VC □ RC □ WQ		
☐ Infiltration Berm		□ VC □ RC □ WQ		
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		□ VC □ RC □ WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
☐ Wet Ponds		□ VC □ RC □ WQ		
☐ Retention Basin		□ VC □ RC □ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		□ VC □ RC □ WQ		
☐ Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning		□ VC □ RC □ WQ		
Ditches		☐ VC ☐ RC ☐ WQ		
☐ Turnouts		□ VC □ RC □ WQ		
☐ Culverts		□ VC □ RC □ WQ		
Roadside Vegetated Filter		□ VC □ RC □ WQ		
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 stage	es			
Identify and list critical stage be present on site.	s of implementation of t	he PCSM Plan for which	a licensed professional	or designee shall
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<ol> <li>Engineer shall inspect the</li> <li>Engineer shall inspect fina</li> </ol>			ires	
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TABLES IN ADDENDUM OF NOI

#### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

Mainline Block Valve 6

## 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: Lehigh River					
Volume Control design storm frequency 2-year Rainfall amount 3.15 inches	Pre-construction	Post Construction	Net Change		
Impervious area (acres)	0.000	0.040	+0.040		
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.022	0.028	+0.006		
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.000	-0.022		
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change		
1) 2-Year/24-Hour	0.212 cfs	0.081 cfs	-0.131 cfs		
2) 10-Year/24-Hour	1.006 cfs	0.283 cfs	-0.723 cfs		
3) 50-year/24-Hour	2.478 cfs	1.951 cfs	-0.527 cfs		
4) 100-year/24-Hour	3.380 cfs	3.338 cfs	-0.042 cfs		

#### 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	□ VC □ RC □ WQ		

Bio-infiltration areas	Infiltration/Recharge				
		$\square$ VC $\square$ RC $\square$ WQ	<u>1,148</u> cf	0.32	
☐ Infiltration Bed		☐ VC ☐ RC ☐ WQ			
☐ Infiltration Basin		□ VC □ RC □ WQ			
Rain Garden/ Bioretention		□ VC □ RC □ WQ			
☐ Infiltration Berm		□ VC □ RC □ WQ			
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		□ VC □ RC □ WQ			
Stormwater Retention	Detention/Retention				
☐ Constructed Wetlands		□ VC □ RC □ WQ			
☐ Wet Ponds		□ VC □ RC □ WQ			
Retention Basin		□ VC □ RC □ WQ			
Sediment and Pollutant	Water Quality				
Removal	Treatment				
□ Vegetated Filter Strips		□ VC □ RC □ WQ			
☐ Compost Filter Sock		□ VC □ RC □ WQ			
☐ Detention Basins		□ VC □ RC □ WQ			
Access Road Design	Infiltration/Recharge				
☐ Road Crowning	g-	□ VC □ RC □ WQ			
Ditches		□ VC □ RC □ WQ			
Turnouts		□ VC □ RC □ WQ			
Culverts		□ VC □ RC □ WQ	<del></del>		
☐ Roadside Vegetated Filter					
Strips		☐ VC ☐ RC ☐ WQ			
Stormwater Energy Dissipaters	Infiltration/Recharge				
Level Spreaders	_	□ VC □ RC □ WQ			
☐ Riprap Aprons		□ VC □ RC □ WQ			
Upslope Diversions		□ VC □ RC □ WQ			
Other		□ VC □ RC □ WQ			
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Identify and list critical stages be present on site.	o or implementation of the	HE FUSIVI FIAITIUI WIIICII	a iiceriseu professional	or designee shall	
·					
1. Engineer shall inspect the s					
<ol><li>Engineer shall inspect final</li></ol>	Engineer shall inspect final stabilization prior to removal of temporary measures.				

TABLES IN ADDENDUM OF NOI

#### SECTION H. POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN BMPs

Mainline Block Valve 7

## 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: Monocacy Creek					
Volume Control design storm frequency 2-year Rainfall amount 3.16 inches	Pre-construction	Post Construction	Net Change		
Impervious area (acres)	0.000	0.030	+0.030		
Volume of stormwater runoff (acrefeet) without planned stormwater BMPs	0.005	0.011	+0.006		
Volume of stormwater runoff (acrefeet) with planned stormwater BMPs		0.000	-0.005		
Stormwater discharge rate for the design frequency storm	Pre-construction	Post Construction	Net Change		
1) 2-Year/24-Hour	0.354 cfs	0.303 cfs	-0.051 cfs		
2) 10-Year/24-Hour	0.638 cfs	0.526 cfs	-0.112 cfs		
3) 50-year/24-Hour	1.031 cfs	0.832 cfs	-0.199 cfs		
4) 100-year/24-Hour	1.243 cfs	1.071 cfs	-0.172 cfs		

#### 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	□ VC □ RC □ WQ		

	•		1	
Bio-infiltration areas	Infiltration/Recharge			
		⊠ VC ⊠ RC ⊠ WQ	<u>576 cf</u>	0.04
☐ Infiltration Bed		□ VC □ RC □ WQ		
☐ Infiltration Basin		□ VC □ RC □ WQ		
Rain Garden/ Bioretention		□ VC □ RC □ WQ		
☐ Infiltration Berm		☐ VC ☐ RC ☐ WQ		
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		□VC □RC □WQ		
Stormwater Retention	Detention/Retention			
☐ Constructed Wetlands		□ VC □ RC □ WQ		
		□ VC □ RC □ WQ		
Retention Basin		□ VC □ RC □ WQ		
Sediment and Pollutant Removal	Water Quality Treatment			
☐ Vegetated Filter Strips		□ VC □ RC □ WQ		
☐ Compost Filter Sock		□ VC □ RC □ WQ		
Detention Basins		□ VC □ RC □ WQ		
Access Road Design	Infiltration/Recharge			
☐ Road Crowning		□ VC □ RC □ WQ		
Ditches		☐ VC ☐ RC ☐ WQ		
☐ Turnouts		☐ VC ☐ RC ☐ WQ		
☐ Culverts		□ VC □ RC □ WQ		
Roadside Vegetated Filter		□ VC □ RC □ WQ		
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 stage	S			
Identify and list critical stages be present on site.	s of implementation of t	he PCSM Plan for which	a licensed professional	or designee shall
_				
<ol> <li>Engineer shall inspect the s</li> <li>Engineer shall inspect final</li> </ol>			ires	
2. Engineer shall inspect lina	Stabilization prior to lei	noval of temperary meast	u. 00.	

#### 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

The applicant must consider and describe any and all non-discharge alternatives for the entire project area which are environmentally sound and will:

- 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

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)
Please refer to Section 2-1 of this ESCGP-3 Application (Section 8.0)	Please refer to Section 3-1 of this ESCGP-3 Application (Section 9) and Section 3-3, PCSM report (Section 3.1)
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 Restoration to pre-construction conditions or meadow in good condition
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.

#### 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
<ul> <li>☑ Treatment BMPs:         <ul> <li>□ Sediment basin with skimmer</li> <li>□ Sediment basin ratio of 4:1 or greater (flow length to basin width)</li> <li>□ Sediment basin with 4-7 day detention</li> <li>□ Flocculants</li> <li>□ Compost Filter Socks</li> <li>□ Compost Filter Sock Sediment Basin</li> <li>□ RCE w/ Wash Rack</li> </ul> </li> <li>☑ Land disposal:             <ul> <li>□ Vegetated filters</li> <li>□ Riparian buffers &lt;150ft.</li> <li>□ Immediate stabilization</li> </ul> </li> <li>☑ Pollution prevention:</li></ul>	✓ Treatment BMPs:   ☐ Infiltration Practices   ☐ Wet ponds   ☐ Created wetland treatment systems   ☐ Vegetated swales   ☐ Manufactured devices   ☐ Bio-retention/infiltration   ☐ Green Roofs   ☐ Land disposal:   ☐ Vegetated filters   ☐ Riparian Buffers <150ft.
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.

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 de dates and steps to achieve compliance) and the current comsheet, when necessary)	escription of the violation, the compliance schedule (including appliance status. (Attach additional information on a separate	
Permit Program or Activity:	Permit Number (if applicable):	
Steps taken to achieve compliance	Date(s) compliance achieved	
Current Compliance Status:   In-Compliance	In Non-Compliance	
If in non-compliance, attach schedule for achieving compliance	э.	

#### PERSON RESPONSIBLE FOR E&S PLANS

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. Professional/Sea Signature Print Name Michael DeNichilo MONWEAL Company Mott MacDonald **PROFESSIONAL** Address 111 Wood Avenue South, Iselin, NJ 08830-4112 MICHAEL DENICHII Phone (973) 379-3400 Most Recent DEP Training Attended Location Date ENGINEER PE086513

#### **EXPEDITED REVIEW PROCESS**

e-Mail Address michael.denichilo@mottmac.com

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:

12/17

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 <a href="Entity name">Enter Entity name</a>, 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.

#### PERSON RESPONSIBLE FOR PCSM PLANS

### 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

	g the possibility of file	and imprisorment.	
Print Name W. Michael Clark	Signature 7	Paral a	Projection and Market
Company Mott MacDonald			TO THE PARTY OF TH
Address 111 Wood Avenue South, Isel	in, NJ 08830-4112		PROFESSIONAL PROFESSIONAL
Phone (973) 379-3400			W. MICHAEL CLARK
Most Recent DEP Training Attended	Location	Date	ENGINEER //
			PE082720
e-Mail Address michael.clark@mottmad	o.com		AN VALOR
EXPEDITED REVIEW PROCESS			h / Marie

In addition to the certification required above, applicants using the expedited permit review process 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 Enter Entity name, 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):	
☐ The responsible corporate officer ☐ president ☐ vice presi☐ treasure of	dent secretary Corporation/Company
☐ The X member or ☐ manager of PennEast Pipeline Comp Entity name	pany, LLC
The general partner of partnership/L Entity name	
	ntity name
Power of Attorney/delegation of contractual authority (document be provided) for  Entity name	cumentation supporting delegation of contracting authority
Dante D'Alessandro, Alternate Manager Print Name and Title of Applicant	Print Name and Title of Co-Applicant (if applicable)
Wante of allemander	,
Signature of Applicant	Signature of Co-Applicant
Date Application Signed	Date Application Signed
Notarization Sworn to and subscribed to before me this	Commonwealth of Pennsylvania
10th day of December, 2018	County of Becks
Margart A. Salaruco Notary Public	My Commission expires 1-Eb- 10 2022
` AFFIX SEAL	
Commonwealth of Pennsylvania - Notary Seal Margaret A. D'Amico, Notary Public Berks County My commission expires February 10. 2022 Commission number 1034358 Member, Pennsylvania Association of Notaries	

SECTION M. ADDITIONAL CONTACT INFORMATION				
Contact's Last Name	First Name	MI	Phone	610-234-0375
Binckley	Sarah		FAX	
Mailing Address	City		State	ZIP + 4
625 West Ridge Pike, Suite E-100	Conshohocken		PA	19428
e-Mail Address sarah.binckley@aecom.com				

	BMP Information	Elevation of E&S sediment basin bottom (if applies)
		Elevation of Elinfiltration Estest <sup>7</sup> se be be be considered in (if
		nfiltration slevation oottom of eed/basin <sup>6</sup>
	BM	Maximum water surface elevation in the BMP from 2yr the storm <sup>6</sup>
		Calculated removed volume (cf)
S		Volume of runoff tributary to BMP during the 2yr/24 hr design storm <sup>4</sup> (cf)
ation BMP	Drainage Information	SMP Surface trea Sq. ft)
Summary of Bio-Infiltration BMPs	Drainage I	rotal mpervious frainage area o BMP sq. ft)
Summary o		drainage area to BMP (sq. ft)
		De-watering Elevation of time <sup>2</sup> limiting zone-water (hr) zone-water table bedrock, etc. <sup>3</sup> etc. <sup>3</sup>
	mation	De-watering El time <sup>2</sup> (hr) z z z z z z z z z z z z z z z z z z z
	Infiltration Information	Design Infiltration rate (in./hr)
	Infil	Factor of safety (min. of 2)
		Measured Infiltration Rate¹ (in./hr)
		Proposed Structural bio-Infiltration BMPs (site specific)

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.

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.

<sup>&</sup>lt;sup>1</sup>The infiltration testing information should be located on the plan view of the PCSM plan and should include infiltration test elevation and rate

<sup>&</sup>lt;sup>2</sup>Can include active infiltration time-dewatering time should not exceed 72 hours after the 2-yr/24-hr storm

<sup>&</sup>lt;sup>3</sup>Depth to limiting zone is recommended to be at least 2 ft below infiltration

<sup>&</sup>lt;sup>4</sup>The value should be greater than or equal to the volume to be infiltrated or managed by the BMP

<sup>&</sup>lt;sup>6</sup>A maximum of 2 ft hydraulic head is recommended

Provide supporting field notes/documentation from soil evaluation