PCSM Module 2

January 2025

203698

POST -CONSTRUCTION STORMWATER MANAGEMENT / SITE RESTORATION PLAN

for the

RURA FIELD PROJECT
Black Lick and Center Townships
Indiana County, Pennsylvania

Prepared for

HOMER CITY GENERATION LP
1750 Power Plant Road
Homer City, PA 15748

Prepared by

Michael Baker International
Moon Twp., Pennsylvania

Post Construction Stormwater Management Plan

Rura Field Project

Homer City Generation LP

Indiana County, Pennsylvania

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Pennsylvania Department of Environmental Protection

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES
POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) MODULE 2

Applicant: **Homer City Generation LP** Project Site Name: **Rura Field Project**

PRE-DEVELOPMENT SITE CHARACTERIZATION

1. Was a pre-development site characterization completed for this project? ☒ Yes ☐ No

   If Yes, describe the activities undertaken.

   Infiltration testing was condcucted as per PADEP guidelines with the test results provided in Appendix E.

2. No. Test Pits completed: 28 No. Boreholes completed:

3. Number of Infiltration Tests completed: 56 Method(s): Double-ring infiltrometer

4. Project Site Area: 91.8 acres Area investigated for infiltration capabilities: 91.8 acres

5. DEP's Pre-Development Site Characterization Spreadsheet has been completed and is attached. ☐ Yes ☒ No

6. The infiltration potential of the site is: ☒ Limited ☐ Marginal ☐ Feasible ☐ Not Recommended

7. If the infiltration potential of the site is limited or is otherwise not advised, explain the limitations.

   Observed poor infiltration rates surounding the site. Majority of the site is covered by HSD D soils which tested poorly for infiltration.

8. Is the project site located in an area with known karst features? ☐ Yes ☒ No

   If Yes, was a subsurface geotechnical investigation conducted and is a report attached? ☐ Yes ☐ No

9. Are there natural stormwater features on-site that will be protected? ☐ Yes ☒ No

   If Yes, describe the features and any increase or decrease in stormwater runoff volume to the features.

POINTS OF ANALYSIS (POAs)				
1. Identify all POAs used for the stormwater analysis and provide the information requested. All runoff from the site must be accounted for.				
POA No.	**Latitude**	**Longitude**	**DA (acres)**	**Surface Water Name**
POI 1	40.5012	-79.1868	26.7	Two Lick Creek
POI 2	40.5038	-79.1784	65.1	Two Lick Creek

PCSM SCM INVENTORY					
1. Identify all PCSM SCMs planned for the project site and provide the information requested.					
SCM ID	**SCM Name**	**Latitude**	**Longitude**	**DA Treated (acres)**	**Deviations from BMP Manual**
001	Re-Vegetate Disturbed Areas	40.5036	-79.1838	91.8	none
2. Area not treated by an SCM, Earth Disturbance Area (acres): 0 Area not treated by an SCM, Project Site Area (acres): 0					
3. ☐ One or more SCMs will be located off-site. SCM IDs:					

PCSM SCM INVENTORY

4. List the critical stages for each SCM and identify the licensed professional and/or company that will sign SCM Construction Certification forms for the SCM.

SCM ID	Critical Stages	LP Name	Company	LP Employed by Company	Contract
				☐	☐
				☐	☐
				☐	☐
				☐	☐
				☐	☐
				☐	☐
				☐	☐
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STORMWATER ANALYSIS – RUNOFF VOLUME

Surface Water Name: **Two Lick Creek** **POA(s):** **POI 1 & 2**

1. ☐ The design standard is based on volume management requirements in an Act 167 Plan approved by DEP within the past five years.
2. ☒ The design standard is based on managing the net change for storms up to and including the 2-year/24-hour storm.
3. ☐ An alternative design standard is being used.
4. ☒ A printout of DEP's PCSM Spreadsheet – Volume Worksheet is attached.
5. 2-Year/24-Hour Storm Event: 2.56 inches Source of precipitation data: NOAA
6. Stormwater Runoff Volume @ 2-Year/24-Hour Storm, Pre-Construction: 241,929 CF
7. Stormwater Runoff Volume @ 2-Year/24-Hour Storm, Post-Construction: 240,001 CF
8. Net Change (Post-Construction – Pre-Construction Volumes): -1,928 CF
9. Identify all selected structural PCSM SCMs and provide the information requested. ☐ Calculations attached

SCM ID	Series	MRC	Vol. Routed to SCM (CF)	Inf. Area (SF)	Inf. Rate (in/hr)	Inf. Period (hrs)	Veg?	Media Depth (ft)	Storage Vol. (CF)	Inf. Credit (CF)	ET Credit (CF)
		☐					☐				
		☐					☐				
		☐					☐				
		☐					☐				
		☐					☐				
		☐					☐				
		☐					☐				
		☐					☐				
		☐					☐				

Total Infiltration & ET Credits (CF):

Other Credits (CF) (Attach Calculations):

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

Volume Required to Manage (CF):

Total Credits (CF):

STORMWATER ANALYSIS – PEAK RATE

Surface Water Name: **POA(s):**

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

2-Year/24-Hour Storm: 10-Year/24-Hour Storm

50-Year/24-Hour Storm: 100-Year/24-Hour Storm

7. Identify all SCMs used to mitigate peak rate differences and provide the requested information.

SCM ID	Inflow to SCM (cfs)				Outflow from SCM (cfs)			
	2-Yr	10-Yr	50-Yr	100-Yr	2-Yr	10-Yr	50-Yr	100-Yr

8. Report peak rates for pre-construction and post-construction with SCMs and identify the differences.

Design Storm	Pre-Construction Peak Rate (cfs)	Post-Construction Peak Rate (with SCMs) (cfs)	Difference (cfs)
2-Year/24-Hour			
10-Year/24-Hour			
50-Year/24-Hour			
100-Year/24-Hour			

STORMWATER ANALYSIS – WATER QUALITY

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

OTHER INFORMATION

1. ☐ A long-term operation and maintenance (O&M) plan has been prepared for each SCM.
2. ☐ A long-term O&M plan will be recorded with a legal instrument for each property containing an SCM.
3. ☐ PCSM Plan Drawings have been developed for the project and are attached to the NOI/application.
4. ☐ The PCSM Plan has been planned, designed, and will be implemented to be consistent with the E&S Plan.
5. ☐ Recycling and proper disposal of materials associated with PCSM SCMs are addressed as part of long-term operation and maintenance of the PCSM SCMs.
6. ☐ There are pre-construction stormwater discharges to wetlands from the project site.

	Pre-Construction		Post-Construction		
Wetland ID	**Drainage Area (ac)**	**Volume (CF)**	**Drainage Area (ac)**	**Volume (CF)**	**Ponding Depth Increase or Decrease (±%)**

7. Describe the sequence of PCSM SCM implementation in relation to earth disturbance activities.

8. Identify naturally occurring geologic formations or soil conditions that may have the potential to cause pollution after earth disturbance activities are completed and PCSM SCMs are operational and the applicant's plan to avoid or minimize potential pollution and its impacts.

9. Thermal Impacts: check the appropriate box(es) if any of the following are true:

   ☐ A peak rate control SCM is proposed that will receive stormwater from a drainage area containing more than 25% impervious surface that exceeds 10% of the receiving surface water's watershed area.

   ☐ A Wet Basin or Engineered Stormwater Treatment Wetland is proposed that does not include shading and/or a reversed slope outlet pipe.

   ☐ An impervious undetained area exceeds 10% of the receiving water's watershed area.

   ☐ A quantitative thermal impact analysis is attached.

IMPERVIOUS SURFACES (MULTI-LOT DEVELOPMENT ONLY)							
Tax Parcel / Lot ID No.	SCM ID(s) Used to Treat Lot Stormwater		Lot Area (SF)	Planned Impervious (SF) [1]	Maximum Allowable Impervious, As Designed (SF) [2]	Maximum Allowable Impervious, Per Ordinance (SF) [3]	Objective Met? [4]
	Rate	Volume / WQ					
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							☐

1 Enter the impervious area as presented on PCSM Plan Drawings.

2 Report the maximum allowable impervious on the lot according to the stormwater analysis and SCM design.

3 List the maximum allowable impervious on the lot to meet requirements of a local ordinance, if applicable.

4 Check the box if either 1) Maximum Allowable Impervious, As Designed is at least 110% of Planned Impervious or 2) Planned Impervious is equal to Maximum Allowable Impervious, Per Ordinance. If the box is checked and the maximum impervious area for the lot is recorded, the permittee will not be responsible for identifying new impervious added to a lot on record drawings after a lot is sold during the term of permit coverage.

PCSM PLAN PREPARER

☒ I am trained and experienced in PCSM methods.

☒ I am a licensed professional.

No. years of experience preparing PCSM Plans: 6

Name:	Nicolas Slater	Title:	Civil Engineer
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Address:	100 Airside Drive	Email:	Nicolas.slater@mbakerintl.com
City, State, ZIP:	Moon Township, PA 15108	License No.:	PE095171
License Type:	Civil Engineer	Exp. Date	

1/15/2025

PCSM Plan Preparer Signature **Date**

Identify those who assisted the individual identified above in preparing the PCSM Plan:

Name	Company	Field	LP?	License Type
Zane Whisel	Construction Engineering Consultants, Inc.	Geotechnical Engineering	☐	
Karl Knoth	Michael Baker International	Civil Engineer	☒	PE
			☐	
			☐	
			☐	