PCSM Module 2

March 2025

203699

POST -CONSTRUCTION STORMWATER MANAGEMENT / SITE RESTORATION PLAN

for the

WEST FIELD PROJECT
Blacklick Township
Center Township
Indiana County, Pennsylvania

Prepared for

HOMER CITY REDEVELOPMENT

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

Prepared by

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Michael Baker International
Moon Twp., Pennsylvania

Post Construction Stormwater Management Plan

West Field Project
Homer City Generation LP
Indiana County, Pennsylvania

TABLE OF CONTENTS

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: **West 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. Shallow bedrock and variable testing results were observed at the tested location. The project calls for large areas of rock excavation that excluded site area from infiltration testing.

2. No. Test Pits completed: 25 No. Boreholes completed: 42

3. Number of Infiltration Tests completed: 22 Method(s): Double-ring infiltrometer

4. Project Site Area: 169.2 acres Area investigated for infiltration capabilities: 31.2 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 to variable infiltration rates surounding the site. Majority of the site is covered by HSD D soils which tested poorly for infiltration. The project calls for large areas of rock excavation which exclude site area from infiltration. The test pits and borings performed reports shallow bedrock across the site. The SCM locations were selected to maintain drainage patterns and stormwater release to exisitng drainage features to the greatest possible extent. Utilizing infiltration SCMs is not practical at the site due to the large contributing drainage areas. The existing topography of the available areas for infiltration do not allow for large infiltration basins that would be required to meet the drainage area loading ratios per the design guidance. The infiltration areas would span multiple soil horizons leading to uneven infiltration rates and unacceptable seperation to bedrock.

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**
POA 1	40.5125	-79.2100	0.68	Trib 44072 of Blacklick Creek
POA 2	40.5105	-79.2098	35.45	Trib 44070 of Blacklick Creek
POA 3	40.5082	-79.2098	49.14	Trib 44062 of Blacklick Creek
POA 4	40.5047	-79.2077	5.27	Trib 44062 of Blacklick Creek
POA 5	40.5038	-79.2048	31.41	Trib 44062 of Blacklick Creek
POA 6	40.5014	-79.2045	2.10	Trib 44062 of Blacklick Creek
POA 7	40.5049	-79.1995	17.05	Trib 44076 of Blacklick Creek
POA 8	40.5074	-79.2018	15.39	Trib 44076 of Blacklick Creek
POA 9	40.5100	-79.2037	3.69	Trib 44076 of Blacklick Creek
POA 10	40.5143	-79.2083	4.77	Trib 44072 of Blacklick Creek
POA 11	40.5166	-79.2049	4.22	Trib 44072 of Blacklick 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	MRC	40.5119	-79.2100	10.98	none
002	Detention Basin	40.5115	-79.2098	-	none
003	Detention Basin	40.5087	-79.2092	38.14	none
004	Detention Basin	40.5081	-79.2054	4.68	none
005	Detention Basin	40.5058	-79.2081	15.98	none
006	MRC	40.5038	-79.2056	13.81	none
007	Detention Basin	40.5034	-79.2060	-	none
008	Detention Basin	40.5020	-79.2047	12.52	none
009	Detention Basin	40.5066	-79.2007	13.49	none
010	MRC	40.5080	-79.2019	12.05	none
011	Detention Basin	40.5076	-79.2021	-	none
012	Detention Basin	40.5139	-79.2081	1.80	none
013	MRC	40.5165	-79.2047	2.77	none
014	Detention Basin	40.5167	-79.2046	-	none
2. Area not treated by an SCM, Earth Disturbance Area (acres): 42.98 Area not treated by an SCM, Project Site Area (acres): 42.98					
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**
001	Installation of underdrain, cap & soil media		Michael Baker Intl	☒	☐
002	Removal of Skimmer Device		Michael Baker Intl	☒	☐
003	Removal of Skimmer Device		Michael Baker Intl	☒	☐
004	Removal of Skimmer Device		Michael Baker Intl	☒	☐
005	Removal of Skimmer Device		Michael Baker Intl	☒	☐
006	Installation of underdrain, cap & soil media		Michael Baker Intl	☒	☐
007	Removal of Skimmer Device		Michael Baker Intl	☒	☐
008	Removal of Skimmer Device		Michael Baker Intl	☒	☐
009	Removal of Skimmer Device		Michael Baker Intl	☒	☐
010	Installation of underdrain, cap & soil media		Michael Baker Intl	☒	☐
011	Removal of Skimmer Device		Michael Baker Intl	☒	☐
012	Removal of Skimmer Device		Michael Baker Intl	☒	☐
013	Installation of underdrain, cap & soil media		Michael Baker Intl	☒	☐
014	Removal of Skimmer Device		Michael Baker Intl	☒	☐
				☐	☐
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STORMWATER ANALYSIS – RUNOFF VOLUME

Surface Water Name: **See PCSM Spreadsheet - General Tab** **POA(s):** **1-11**

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: inches Source of precipitation data:
6. Stormwater Runoff Volume @ 2-Year/24-Hour Storm, Pre-Construction: CF
7. Stormwater Runoff Volume @ 2-Year/24-Hour Storm, Post-Construction: CF
8. Net Change (Post-Construction – Pre-Construction Volumes): 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: **See PCSM Spreadsheet - General Tab** **POA(s):** **1-11**

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 (±%)**
W-37	**49.80**	**107,301**	**49.14**	**105,813**	
W-35	**27.95**	**73,614**	**31.41**	**64,115**	
W-36	**27.95**	**73,614**	**31.41**	**64,115**	

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

   See PCSM Drawing C-744-3512 for PCSM SCM installatin sequence.

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.

   For the proposed project, it is anticipated that proposed BMPs will be sufficient to manage and control limitations that may be exhibited by the soils contained within the project site during and upon completion of construction. Refer to the Soil Limitations Resolutions provided with this permit application.

   At a minimum, BMPs will be installed where indicated on the plan drawings to prevent erosion and sedimentation during and upon completion of construction. Severe erosion hazard limitations will be reduced by soil stabilization through the application of FGM and temporary/permanent vegetative stabilization. Sedimentation and siltation limitations will be prevented through the installation of sediment basins and filtration BMPs, such as compost filter sock. The sediment basins will be utilized to control runoff from the majority of the site during construction and will be equipped with floating skimmer devices that will dewater the facilities within 4-7 days. Special measures to be implemented during earth disturbance activities associated with construction will include the segregation of topsoil. Soils disturbed during construction activities will be replaced, re-vegetated and stabilized.

   No acid-producing rock formations are anticipated to be present or encountered. However, if any material is found to be present at the site, the material will be handled in accordance with PADEP Fact Sheet 5600-FS-DEP4284.

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: 8

Name:	Nicolas Slater	Title:	Civil Engineer
Company:	Michael Baker International	Phone No.:	412-375-3227
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	

03/28/2025

PCSM Plan Preparer Signature **Date**

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

Name	Company	Field	LP?	License Type
Sue Toth	Apex Companies LLC	Civil Engineer	☒	PE
Karl Knoth	Michael Baker International	Civil Engineer	☒	PE
			☐	
			☐	
			☐	