pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

PAG-02
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR DISCHARGES OF
STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES
NOI CHECKLIST

Applicant Name:	PDC Northeast LPIV, LLC
Project Site Name:	283 Commerce Center - Building #1
NOI Type:	☒ New ☐ Renewal ☐ Major Amendment ☐ Minor Amendment

Place a checkmark in the box provided for all items completed and/or provided. Failure to provide all required information will delay the processing of the NOI. ENCLOSE THIS CHECKLIST WITH YOUR COMPLETED NOI.

	NOI REQUIREMENTS [1]	Check ✓ If Included	Check ✓ If Not Applicable
1.	One original and one copy of the complete NOI form (3800-PM-BCW0405b)	☒	
2.	Administrative Filing Fee ($500 plus any additional CCD-specific fees, if applicable)	☒	☐
3.	One copy of the completed NOI form to DEP (if CCD will review NOI)	☒	☐
4.	Disturbed Acreage Fee ($100 x disturbed acres)	☒	☐
5.	Two copies of the County Notification Form (3800-FM-BCW0271b) [2]	☒	☐
6.	Two copies of the Municipal Notification Form (3800-FM-BCW0271c) [2]	☒	☐
7.	Two copies of the proof of county and municipal receipt of Notification Forms (required if Notification Forms are not signed by county and/or municipality) [2]	☒	☐
8.	One original and one copy of the PNDI Receipt [3]	☒	☐
9.	Two copies of the PNDI clearance letter(s) from jurisdictional agencies [3]	☒	☐
10.	One original and one copy of E&S Module 1 (3800-PM-BCW0406a)	☒	☐
11.	Two copies of E&S Plan Drawings [4]	☒	☐
12.	Two copies of E&S Standard Worksheets (or equivalent) and supporting calculations	☒	☐
13.	One original and one copy of PCSM Module 2 (3800-PM-BCW0406b)	☒	☐
14.	Two copies of PCSM Plan Drawings [4]	☒	☐
15.	Two copies of PCSM Supporting Calculations – BMP Design	☒	☐
16.	Two copies of PCSM Supporting Calculations – Stormwater Analysis (required where DEP PCSM Spreadsheet not used)	☒	☐
17.	Two copies of the DEP PCSM Spreadsheet – Volume Worksheet (optional)	☒	☐
18.	Two copies of the DEP PCSM Spreadsheet – Rate Worksheet (optional)	☒	☐
19.	Two copies of the DEP PCSM Spreadsheet – Quality Worksheet	☒	☐
20.	Two copies of soil/geologic test results (where BMPs relying on infiltration will be installed)	☒	☐
21.	Other:	☐	

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GENERAL PERMIT FOR DISCHARGES OF
STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES
NOTICE OF INTENT (NOI)

Before completing this form, read the step-by-step instructions provided in the PAG-02 NOI package.

DEP / CCD USE ONLY

Date Received: _____ Permit ID: _____

☐ Project Eligible ☐ NOI Complete Date of: ☐ Return ☐ Withdrawal ☐ Denial

Date Resubmission Received: _____ _____

Date Determined Complete: _____ Issuance Date: _____

Coverage Effective Date: _____ Coverage Expiration Date: _____

GENERAL INFORMATION

1. NOI Type: ☒ New ☐ Renewal ☐ Major Amendment ☐ Minor Amendment Permit No. PA_____

2. Primary NAICS Code: 23620 3. Additional NAICS Codes: _____

4. Project Description: Land development entails the construction of one (1) warehouse / distribution center with an approximate building footprint of 1,006,880 square feet of gross floor area. Access to the site is proposed via two (2) driveways on Mount Pleasant Road. Development of the site will also include construction of truck courts, employee parking areas, trailer storage areas, site utilities, landscaping amenities, a stormwater collection, conveyance, and management system, and other related site improvements.

5. ☐ Site Restoration Project

6. ☐ Common Plan of Development or Sale No. phases: No. phases complete:

APPLICANT INFORMATION

1. Organization Name or Registered Fictitious Name: PDC Northeast LPIV, LLC
2. Employer ID# (EIN):

3. Individual Last Name | First Name | MI | Suffix

4. Mailing Address Line 1: 6059 Allentown Boulevard, Suite 127
Mailing Address Line 2:

5. Address Last Line – City: Harrisburg | State: PA | ZIP+4: 17112-2672 | Country:

6. Applicant Contact Last Name: Peters | First Name: Joe | MI: | Suffix:

7. Applicant Contact Title: Development Manager
8. Phone: 717-649-9588 Ext

9. Email Address: jpeters@panattoni.com
10. FAX:

11. Ownership: Government: ☐ Federal ☐ State ☐ County ☐ Municipal ☐ School District
☒ Non-Government ☐ Mixed (Public/Private)

ELIGIBILITY INFORMATION		
1. Stormwater discharges from the project site will not drain to surface waters, including wetlands, that are classified for special protection.	☒ True	☐ False
2. The applicant is not in violation of any DEP or EPA enforceable document, including any permit, schedule of compliance, consent assessment of civil penalty, or order at the project site or other sites or facilities owned or operated by the applicant in Pennsylvania, and has not shown a lack of ability or intention to comply with laws administered by DEP or EPA as indicated by past or continuing violations.	☒ True	☐ False
3. The PNDI receipt indicates either 1) "No Impact", or 2) "Conservation Measures", or 3) "Avoidance Measures" that have been agreed to by the applicant, or 4) "Potential Impact" or "Avoidance Measures" not agreed to by the applicant but clearance letters from jurisdictional agencies are attached to the NOI or otherwise will be submitted prior to General Permit coverage.	☒ True	☐ False
4. Soils in the area of the earth disturbance are not contaminated at levels exceeding residential or non-residential medium-specific concentrations (MSCs) in 25 Pa. Code Chapter 250 at residential or non-residential construction sites, respectively, unless a site-specific standard has been met or evidence is provided that the contamination is naturally occurring or the result of widespread atmospheric deposition.	☒ True	☐ False
5. Stormwater will not be discharged to MS4 or CSO systems or will be discharged to MS4 or CSO systems with no net change in volume, rate or water quality or will be discharged to MS4 or CSO systems with a net change (increase) and written consent of the MS4 or CSO permittee.	☒ True	☐ False
6. All fill material imported to the project site will be clean fill or will be regulated fill that has been authorized for use on the project site by DEP's Waste Management Program or will be used on an Act 2 site in accordance with standards established by DEP's Land Recycling and Environmental Remediation Standards Program.	☒ True	☐ False
7. Stormwater discharges will not occur that would contain toxic or hazardous pollutants as defined in sections 307 and 311 of the Clean Water Act (33 U.S.C. §§ 1317 and 1321) or any other substance that – because of its quantity, concentration, or physical, chemical or infectious characteristics – may cause or contribute to an increase in mortality or morbidity in either an individual or the total population, or pose a substantial present or future hazard to human health or the environment when discharged into surface waters.	☒ True	☐ False
8. Stormwater will not be discharged to impaired waters caused by siltation, suspended solids, turbidity, water/flow variability, flow modifications/alterations, or nutrients, or stormwater will be discharged to impaired waters but the applicant will implement non-discharge alternative(s) or ABACT BMPs.	☒ True	☐ False
9. Stormwater will not be discharged to waters with an EPA-approved or established TMDL for siltation, suspended solids, or nutrients, or will be discharged to TMDL waters (including the Chesapeake Bay) but the applicant will implement non-discharge alternative(s) or ABACT BMPs and any applicable wasteload allocation (WLA) will be achieved.	☒ True	☐ False

EXISTING PERMITS

Identify all environmental permits issued by DEP/CCD or EPA or are pending for this facility/project site within the past 5 years.

Type of Permit	Permit No.	Date Issued	Issued By

PROJECT SITE INFORMATION

1. Project Site Name: 283 Commerce Center - Building #1
2. Total Project Site Area: 110 acres
3. Project Site Impervious Area – Pre-Construction: 1.60 acres; Percent of Total: 1.45 %
4. Project Site Impervious Area – Post-Construction: 44.64 acres; Percent of Total: 40.58 %
5. Hydric soils or other wetland features are present within the Project Site. ☒ Yes ☐ No
   ☒ If Yes, the wetland determination is attached to the NOI.
6. County Name: Lancaster; Municipality Name: Mount Joy; City ☐ Boro ☐ Twp ☒ State: PA
7. County Name: ; Municipality Name: ; City ☐ Boro ☐ Twp ☐ State: PA
8. Site Location Address: 2843 Mount Pleasant Road
9. Site Location City: Mount Joy; State: PA; ZIP+4: 17552-8730

OPERATOR INFORMATION

1. Operator Name: TBD
2. Contact Name:
3. Operator Address:
4. Operator Phone:
5. Operator City, State, Zip:
6. Operator's Role in Project: ☐ General Contractor ☐ Consultant ☐ Excavation Contractor ☐ Other
7. Operator's Responsibilities:

1. Operator Name:
2. Contact Name:
3. Operator Address:
4. Operator Phone:
5. Operator City, State, Zip:
6. Operator's Role in Project: ☐ General Contractor ☐ Consultant ☐ Excavation Contractor ☐ Other
7. Operator's Responsibilities:

EARTH DISTURBANCE INFORMATION

1. Total Earth Disturbance Area: 94 acres; 4,094,640 sf
2. Pre-Construction Impervious Area: 69,863 sf
3. Post-Construction Impervious Area: 1,944,651 sf
4. Pre-Construction/Present Land Use(s):

Agriculture	100 %
	%
	%
	%

5. Post-Construction Land Use(s):

Warehouse / Distribution Center	100 %
	%
	%
	%

6. ☒ Plan Drawings within E&S Plans and PCSM Plans showing topography, project site and LOD boundaries, surface waters, discharge points, E&S and PCSM BMPs, and drainage patterns are attached.
7. Report latitude and longitude at the center of the proposed disturbed area (decimal degrees).
   Latitude: 40.145709 Longitude: -76.543616
8. Horizontal Reference Datum: ☐ NAD of 1927 ☒ NAD of 1983 ☐ WGS of 1984 ☐ Unknown

EARTH DISTURBANCE INFORMATION (CONTINUED)

9. There will be off-site construction support activities. ☐ Yes ☒ No

10. If Yes, identify the nature of known off-site support activities whose disturbance is included in #1, above:

Description of Off-Site Support Activity	Distance from Site	Disturbance Area
	mi	acres
	mi	acres

11. Identify any other off-site support activities whose disturbance is not included in #1, above (see instructions).

Description of Off-Site Support Activity	Distance from Site	Disturbance Area
	mi	acres
	mi	acres

12. Check the appropriate box concerning fill material (see instructions):

- ☒ No fill material is expected to be imported to the project site.
- ☐ It is expected that fill will be needed for this project. The source of fill has not yet been determined but will undergo environmental due diligence when identified.
- ☐ It is expected that fill will be needed for this project. The applicant has identified the source of the fill and has determined the material to be clean fill. DEP's online Certification of Clean Fill form has been submitted.
- ☐ It is expected that fill will be needed for this project, which is located on a site that is being remediated to Act 2 standards and will be utilized in accordance with DEP standards under that program.
- ☐ It is expected that fill will be needed for this project. The applicant has identified the source of the fill and has determined it to be regulated fill. The regulated fill is authorized on the project site under a Waste Management General Permit No. WMGR096 authorization dated: _____.
- ☐ It is expected that fill will be needed for this project, which is not on an Act 2 site. The applicant has identified the fill and has determined that it does not meet criteria for clean fill. The applicant is seeking authorization to use the regulated fill from DEP's Waste Management Program.

13. The site is enrolled in DEP's Act 2 Program. ☐ Yes ☒ No

14. The site was previously enrolled in DEP's Act 2 Program and cleanup standards have been met. ☐ Yes ☐ No

15. Is Act 537 sewage planning approval needed for this project? ☒ Yes ☐ No

The Act 537 approval letter is attached to the NOI. ☐ Yes ☒ No (will be obtained before construction) ☐ N/A

16. A Chapter 105 permit or authorization is required. ☐ Yes ☒ No

17. If Yes, identify the necessary authorization. ☐ Joint Permit ☐ General Permit ☐ Waiver

18. Other DEP/CCD permits or authorizations are required. ☐ Yes ☒ No

19. If Yes, identify the necessary authorizations.

COMPLIANCE HISTORY

Was/Is the applicant, facility owner or operator in violation of any DEP regulation, permit, order, or schedule of compliance at this or any other facility or project site within the past 5 years? ☐ Yes ☒ No

If "Yes," list each permit, order or schedule of compliance and provide current compliance status. Use additional sheets to provide information on all permits.

Permit Program: Permit No.:

Brief Description of Non-Compliance:

Steps Taken to Achieve Compliance	Date(s) Compliance Achieved

Current Compliance Status: ☐ In Compliance ☐ In Non-Compliance

STORMWATER DISCHARGE INFORMATION

1. List all stormwater discharge points **during construction** and provide the information requested below (see instructions). ☐ Not Applicable

Discharge Point No.	LATITUDE	LONGITUDE	RECEIVING WATERS					
	Degrees	Degrees	Name of Receiving Waters	Ches. Bay?	Non-Surface Waters	Ch. 93 Class.	Impaired?	TMDL?
001	40.148343	-76.545429	UNT to Little Chiques Creek	☒	☐	TSF, MF	☒	☒
002	40.148279	-76.545977	UNT to Little Chiques Creek	☒	☐	TSF, MF	☒	☒
003	40.146915	-76.547423	UNT to Little Chiques Creek via Wetland 1	☒	☐	TSF, MF	☒	☒
004	40.145599	-76.546850	UNT to Little Chiques Creek via Wetland 2	☒	☐	TSF, MF	☒	☒
005	40.142280	-76.543466	UNT to Little Chiques Creek via Storm Sewers	☒	☐	TSF, MF	☒	☒
006	40.144253	-76.540929	UNT to Little Chiques Creek	☒	☐	TSF, MF	☒	☒
007	40.146289	-76.540207	UNT to Little Chiques Creek	☒	☐	TSF, MF	☒	☒
008	40.14853	-76.539310	UNT to Little Chiques Creek	☒	☐	TSF, MF	☒	☒
009	40.143602	-76.551106	UNT to Little Chiques Creek via Storm Sewers	☒	☐	TSF, MF	☒	☒

2. List all stormwater discharge points **after construction and stabilization are complete** and provide the information requested below. ☐ Not Applicable

Discharge Point No.	LATITUDE	LONGITUDE	RECEIVING WATERS					
	Degrees	Degrees	Name of Receiving Waters	Ches. Bay?	Non-Surface Waters	Ch. 93 Class.	Impaired?	TMDL?
001	40.148343	-76.545429	UNT to Little Chiques Creek	☐	☐	TSF, MF	☒	☒
002	40.148279	-76.545977	UNT to Little Chiques Creek	☐	☐	TSF, MF	☒	☒
003	40.146915	-76.547423	UNT to Little Chiques Creek via Wetland 1	☐	☐	TSF, MF	☒	☒
004	40.145599	-76.546850	UNT to Little Chiques Creek via Wetland 2	☐	☐	TSF, MF	☒	☒
005	40.142280	-76.543466	UNT to Little Chiques Creek via Storm Sewers	☐	☐	TSF, MF	☒	☒
006	40.144253	-76.540929	UNT to Little Chiques Creek	☐	☐	TSF, MF	☒	☒
007	40.146289	-76.540207	UNT to Little Chiques Creek	☐	☐	TSF, MF	☒	☒
008	40.14853	-76.539310	UNT to Little Chiques Creek	☐	☐	TSF, MF	☒	☒
009	40.143602	-76.551106	UNT to Little Chiques Creek via Storm Sewers	☐	☐	TSF, MF	☒	☒

3. Will any of the points identified above discharge to a storm sewer system? ☒ Yes ☐ No	Is the storm sewer an MS4 or CSS? ☒ Yes ☐ No
Name of storm sewer owner/operator: PennDOT	Discharge points discharging to storm sewer: 005
4. Identify and describe all non-stormwater discharges that are expected to occur during permit coverage. Describe the frequency and volume of all such discharges.	
☒ No non-stormwater discharges are anticipated.	
5. Will there be any new or increased discharge to non-surface waters prior to reaching surface waters? ☐ Yes ☒ No	
If Yes, the applicant is expected to 1) secure legal authority for the non-surface water discharge if the discharge will be to property not owned by the applicant, and 2) provide for adequate E&S controls to prevent accelerated erosion.	

STORMWATER DISCHARGE INFORMATION (CONTINUED)

6. For each discharge to an impaired water (with or without a TMDL, including Ches. Bay) complete the information below.

Discharge Point No.: 001, 003, 009

Stormwater will be managed using: ☐ Non-discharge alternative ☒ ABACT BMP(s)

Description of E&S BMP(s): Sediment Basin, Compost Filter Sock, Rock Filter

Description of PCSM BMP(s): MRC with Bioretention Area (6.4.5), Dry Extended Detention Basin (6.6.3), Landscape Restoration (6.7.2)

WLA(s) in a TMDL apply to this discharge: ☒ Yes ☐ No

If Yes, describe how the discharge will comply with the WLA(s):

WLA's exist for siltation runoff related to agricultural practices. The site will remove agricultural fields and then implement stormwater management BMPs. These BMPs will significantly reduce siltation runoff.

Discharge Point No.: 002, 004, 005, 006, 007, 008

Stormwater will be managed using: ☐ Non-discharge alternative ☒ ABACT BMP(s)

Description of E&S BMP(s): Compost Filter Sock, Rock Filter, Significant Reduction in Drainage Area

Description of PCSM BMP(s): Landscape Restoration (6.7.2), Significant Reduction in Drainage Area

WLA(s) in a TMDL apply to this discharge: ☒ Yes ☐ No

If Yes, describe how the discharge will comply with the WLA(s):

WLA's exist for siltation runoff related to agricultural practices. The site will remove agricultural fields and then significantly reduce the drainage area to these discharge points while also implementing the Landscape Restoration BMP across most of the remaining drainage area.

Discharge Point No.:

Stormwater will be managed using: ☐ Non-discharge alternative ☐ ABACT BMP(s)

Description of E&S BMP(s):

Description of PCSM BMP(s):

WLA(s) in a TMDL apply to this discharge: ☐ Yes ☐ No

If Yes, describe how the discharge will comply with the WLA(s):

Discharge Point No.:

Stormwater will be managed using: ☐ Non-discharge alternative ☐ ABACT BMP(s)

Description of E&S BMP(s):

Description of PCSM BMP(s):

WLA(s) in a TMDL apply to this discharge: ☐ Yes ☐ No

If Yes, describe how the discharge will comply with the WLA(s):

CERTIFICATION FOR PAG-02 APPLICANTS

I certify under penalty of law 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 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 NPDES permit, and that 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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment or both for knowing violations pursuant to Section 309(c)(4) of the Clean Water Act and 18 Pa. C.S.A. § 4904.

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 that I am the signatory pursuant to 25 Pa, Code § 92a.22 and 40 CFR §122.22 and that I am the person who is responsible for decision-making regarding environmental compliance functions for _____, 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 president ☐ secretary ☐ treasurer of _____
Corporation/Company — Entity name

☒ The person either holding a position designated or individually listed on a "Certificate of Limited Liability Company Authority" filed with the Pennsylvania Department of State as a position/person with the authority to bind the company OR the person listed in the LLC's most current and active operating agreement as having the authority to bind the company. Please attach the applicable "Certificate of Limited Liability Company Authority" or operating agreement. If the operating agreement is attached, please identify the page and paragraph containing the applicable information.

☐ The general partner of _____ partnership/LP/LLP
Entity name

☐ The principal executive officer or ranking elected official of _____ Municipality/State/Federal/other public agency
Entity name

☐ Power of Attorney/delegation of contractual authority (documentation supporting delegation of contracting authority must be provided) for _____
Entity name

Johan Henriksen	Local Partner
Applicant Name (type or print legibly)	**Official Title**
	12/30/2022
Applicant Signature	**Date Signed**

CERTIFICATION FOR OPERATORS
I understand that I am assuming joint and severable responsibility, coverage, and liability under the permit for all duties, responsibilities, and non-compliance with the Chapter 102 permit, as a co-permittee of this permit coverage. I certify that I will implement the requirements of the permit and the approved design plans and will notify the permittee and the agency that issued permit coverage prior to implementing changes to the plans.

TBD

Operator Name (type or print legibly) | **Official Title**

Operator Signature | **Date Signed**

Operator Name (type or print legibly) | **Official Title**

Operator Signature | **Date Signed**

LANDWORKS CIVIL DESIGN, LLC
www.landworkscd.com

Via Email

January 3, 2023

Lancaster County Planning Commission
150 North Queen Street
Suite #320
Lancaster, PA 17603

Re: General NPDES Permit Application
283 Commerce Center – Building #1
East Hempfield Township
Lancaster County, PA
Act 14, 67, 68, & 127 Notification

Dear Commission Members:

Acts 14, 67, 68, and 127, which amended the Municipalities Planning Code, direct state agencies to consider comprehensive plans and zoning ordinances when reviewing applications for permitting of facilities and infrastructure, and specify that state agencies may rely upon comprehensive plans and zoning ordinances under certain conditions as described in Sections 619.2 and 1105 of the Municipalities Planning Code. The Pennsylvania Department of Environmental Protection's Policy for Consideration of Local Comprehensive Plans and Zoning Ordinances in DEP Review of Permits for Facilities and Infrastructure (DEP's Land Use Policy) provides direction and guidance to DEP staff, permit applicants, and local and county governments for the implementation of Acts 14, 67, 68 and 127 of 2000. This policy can be found at www.dep.state.pa.us, keyword: Land Use.

Enclosed please find the County Notification of Planned Land Development for Chapter 102 Permits that is to be submitted with our permit application to DEP for an NPDES Permit for Stormwater Discharges Associated with Construction Activities. Please complete the attached form and return within 30 days to the Agent of Applicant:

Agent of Applicant: Jeramy Bittinger, E.I.T.
Landworks Civil Design, LLC

Address of Agent: 1195 Virginia Avenue
York, PA 17403
(717) 395-7629

Please do not send this form to DEP, as we must include the County Notification of Planned Land Development for Chapter 102 Permits with our permit application. If we do not receive a response from you **within 30 days**, we shall proceed to submit our permit application to DEP without the County Notification of Planned Land Development for Chapter 102 Permits. If the County Notification of Planned Land Development for Chapter 102

Permits is not submitted with our permit application, and we provide proof to DEP that we attempted to obtain it, DEP will assume there are no substantive land use conflicts and proceed with the normal application review process.

If you have any questions, please do not hesitate to contact me at (717) 395-7629 or jbittinger@landworkscd.com. Thank you.

Sincerely,
LANDWORKS CIVIL DESIGN, LLC

Jeramy Bittinger E.I.T.
Project Manager

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

COUNTY NOTIFICATION OF PLANNED LAND DEVELOPMENT FOR CHAPTER 102 PERMITS

PROJECT INFORMATION (COMPLETED BY APPLICANT)

Applicant Name: **PDC Northeast LPIV, LLC**

Applicant Address: **6059 Allentown Blvd Suite 127**

Applicant City, State, ZIP: **Harrisburg, PA 17112**

Contact Name: **Joe Peters**

Contact Phone: **717-649-9588**

County: **Lancaster**

Municipality: **Mount Joy Township**

Description of Proposed Land Development and Stormwater Controls:

Construction of one (1) warehouse / distribution center with an approximate footprint of 1,006,880 square feet of gross floor area. Access to the site is proposed via two (2) driveways on Mount Pleasant Road. Development of the site will also include construction of truck courts, employee parking areas, trailer storage areas, site utilities, landscaping amenities, and a stormwater collection, conveyance, and management system.

Project Area: **110** acres ☐ Phased

Disturbance: **94** acres

Surface Waters Receiving Stormwater Discharges:

U.N.T. to Little Chiques Creek

Tax Parcel ID(s) Affected by Proposed Land Development:

461-89922-0

Discharge to: ☐ MS4 ☐ Other SS ☐ CSS

The following information was submitted to the county for this project:

☐ Land Development / Subdivision Plan ☐ E&S Plan ☐ PCSM Plan ☒ Other: **Site Plan**

COUNTY PLAN INFORMATION (COMPLETED BY COUNTY)

Name of county organization completing this assessment:

1.	Is there an adopted county or multi-county comprehensive plan?	☐ Yes	☐ No	
2.	If Yes to #1, is the proposed project consistent with the county plan?	☐ Yes	☐ No	
3.	Is there a DEP-approved Act 167 stormwater management plan?	☐ Yes	☐ No	☐ CCD
4.	If Yes to #3, is the proposed project consistent with the Act 167 plan, without waiver?	☐ Yes	☐ No	☐ CCD
5.	If Yes to #3, list the date of the latest plan / update approved by DEP:			☐ CCD

APPLICANT CERTIFICATION	COUNTY ACKNOWLEDGEMENT
I certify under penalty of law (see 18 Pa.C.S. § 4904 (relating to unsworn falsification)) that the information reported herein was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the information, 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. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	The county acknowledges that a permit application for the above-referenced project has been submitted to a reviewing agency and that notification requirements of Act 14 of 1984 and Acts 67, 68, and 127 of 2000 have been satisfied. The information reported herein by the county is true and accurate. County acknowledgment of receipt of notification shall not be construed as project approval.

Jeramy Bittinger, E.I.T.

~~Applicant Name~~ Agent for Applicant

County Representative Name

~~Applicant Signature~~ Agent for Applicant Signature

County Representative Signature

Project Manager

~~Applicant Title~~ Agent for Applicant Title

County Representative Title

01/03/2023

Date of Signature

Date of Signature

Jeramy Bittinger

From: Rohrbaugh, Alex <ARohrbaugh@co.lancaster.pa.us>
Sent: Tuesday, January 3, 2023 11:43 AM
To: Jeramy Bittinger
Subject: RE: 283 Commerce Center - Building #1 - Act 14 Notification

Received. Thanks Jeremy

Alex W. Rohrbaugh, AICP
Senior Planner

Lancaster County Planning Department
150 North Queen Street, Suite 320
Lancaster, PA 17603
arohrbaugh@co.lancaster.pa.us
Direct: 717-299-8344

From: Jeramy Bittinger <jbittinger@landworkscd.com>
Sent: Tuesday, January 3, 2023 10:43 AM
To: Rohrbaugh, Alex <ARohrbaugh@co.lancaster.pa.us>
Subject: [EXTERNAL] 283 Commerce Center - Building #1 - Act 14 Notification

Alex:

Please see the attached Act 14 notification. We will be submitting for an NPDES permit with the conservation district later this week. Please acknowledge receipt for us to attach to our submission package. Thanks!

Jeramy Bittinger, E.I.T.
Project Manager
LANDWORKS CIVIL DESIGN, LLC
Camp Hill & York, Pennsylvania
c. (717) 395-7629
jbittinger@landworkscd.com

LANDWORKS CIVIL DESIGN, LLC
www.landworkscd.com

Via Email

January 3, 2023

Mount Joy Township Planning Commission
Mount Joy Township
8853 Elizabethtown Road
Elizabethtown, PA 17022

Re: General NPDES Permit Application
283 Commerce Center – Building #1
Mount Joy Township
Lancaster County, PA
Act 14, 67, 68, & 127 Notification

Dear Commission Members:

Acts 14, 67, 68, and 127, which amended the Municipalities Planning Code, direct state agencies to consider comprehensive plans and zoning ordinances when reviewing applications for permitting of facilities and infrastructure, and specify that state agencies may rely upon comprehensive plans and zoning ordinances under certain conditions as described in Sections 619.2 and 1105 of the Municipalities Planning Code. The Pennsylvania Department of Environmental Protection's Policy for Consideration of Local Comprehensive Plans and Zoning Ordinances in DEP Review of Permits for Facilities and Infrastructure (DEP's Land Use Policy) provides direction and guidance to DEP staff, permit applicants, and local and county governments for the implementation of Acts 14, 67, 68 and 127 of 2000. This policy can be found at www.dep.state.pa.us, keyword: Land Use.

Enclosed please find the Municipal Notification of Planned Land Development for Chapter 102 Permits that is to be submitted with our permit application to DEP for an NPDES Permit for Stormwater Discharges Associated with Construction Activities. Please complete the attached form and return within 30 days to the Agent of Applicant:

Agent of Applicant: Jeramy Bittinger, E.I.T.
Landworks Civil Design, LLC

Address of Agent: 1195 Virginia Avenue
York, PA 17403
(717) 395-7629

Please do not send this form to DEP, as we must include the Municipal Notification of Planned Land Development for Chapter 102 Permits with our permit application. If we do not receive a response from you within 30 days, we shall proceed to submit our permit application to DEP without the Municipal Notification of Planned Land Development for Chapter 102 Permits. If the Municipal Notification of Planned Land Development for Chapter 102 Permits is not submitted with our permit application, and we provide proof to DEP that we attempted to

obtain it, DEP will assume there are no substantive land use conflicts and proceed with the normal application review process.

If you have any questions, please do not hesitate to contact me at (717) 395-7629 or jbittinger@landworkscd.com. Thank you.

Sincerely,
LANDWORKS CIVIL DESIGN, LLC

Jeramy Bittinger E.I.T.
Project Manager

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

MUNICIPAL NOTIFICATION OF PLANNED LAND DEVELOPMENT FOR CHAPTER 102 PERMITS

PROJECT INFORMATION (COMPLETED BY APPLICANT)

Applicant Name:	**PDC Northeast LPIV, LLC**	Contact Name:	**Joe Peters**
Applicant Address:	**6059 Allentown Blvd Suite 127**	Contact Phone:	**717-649-9588**
Applicant City, State, ZIP:	**Harrisburg, PA 17112**	County:	**Lancaster**
Description of Proposed Land Development and Stormwater Controls:		Municipality:	**Mount Joy Township**

Construction of one (1) warehouse / distribution center with an approximate footprint of 1,006,880 square feet of gross floor area. Access to the site is proposed via two (2) driveways on Mount Pleasant Road. Development of the site will also include construction of truck courts, employee parking areas, trailer storage areas, site utilities, landscaping amenities, and a stormwater collection, conveyance, and management system.

Project Area: **110** acres ☐ Phased

Disturbance: **94** acres

Surface Waters Receiving Stormwater Discharges:

U.N.T. to Little Chiques Creek

Tax Parcel ID(s) Affected by Proposed Land Development:

461-89922-0

Discharge to: ☐ MS4 ☐ Other SS ☐ CSS

The following information was submitted to the municipality for this project:

☐ Land Development / Subdivision Plan ☐ E&S Plan ☐ PCSM Plan ☒ Other: **Site Plan**

MUNICIPAL PLAN / ORDINANCE INFORMATION (COMPLETED BY MUNICIPALITY)

1.	Is there an adopted municipal or multi-municipal comprehensive plan?	☐ Yes	☐ No
2.	Is there an enacted municipal or multi-municipal zoning ordinance?	☐ Yes	☐ No
3.	If Yes to #2, is the proposed project consistent with the ordinance?	☐ Yes	☐ No
4.	Is there a municipal stormwater management ordinance?	☐ Yes	☐ No
5.	If Yes to #4, is the proposed project consistent with the ordinance, without waiver?	☐ Yes	☐ No

6. If Yes to #4, indicate type of ordinance: ☐ Act 167 Model Ordinance ☐ DEP Model Ordinance (MS4s) ☐ Other

APPLICANT CERTIFICATION	MUNICIPAL ACKNOWLEDGEMENT
I certify under penalty of law (see 18 Pa.C.S. § 4904 (relating to unsworn falsification)) that the information reported herein was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the information, 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. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	The municipality acknowledges that a permit application for the above-referenced project has been submitted to a reviewing agency and that notification requirements of Act 14 of 1984 and Acts 67, 68, and 127 of 2000 have been satisfied. The information reported herein by the municipality is true and accurate. The municipality reserves the right to comment to the reviewing agency relative to comprehensive plans, zoning, and stormwater ordinance consistency. Municipal acknowledgment of receipt of notification shall not be construed as project approval.

Jeramy Bittinger, E.I.T.

~~Applicant Name~~ Agent for Applicant

Municipal Representative Name

~~Applicant Signature~~ Agent for Applicant Signature

Municipal Representative Signature

Project Manager

~~Applicant Title~~ Agent for Applicant Title

Municipal Representative Title

01/03/2023

Date of Signature

Date of Signature

Jeramy Bittinger

From: Justin Evans <Justin@mtjoytwp.org>
Sent: Tuesday, January 3, 2023 11:32 AM
To: Jeramy Bittinger
Subject: RE: 283 Commerce Center - Building #1 - Act 14 Notification

Received, thank you.

Justin S. Evans, AICP
Township Manager/Zoning Officer
Mount Joy Township
8853 Elizabethtown Road
Elizabethtown, PA 17022
717-367-8917 x.207 (office)
www.mtjoytwp.org

From: Jeramy Bittinger <jbittinger@landworkscd.com>
Sent: Tuesday, January 3, 2023 10:43 AM
To: Justin Evans <Justin@mtjoytwp.org>
Subject: 283 Commerce Center - Building #1 - Act 14 Notification

Justin:

Please see the attached Act 14 notification. We will be submitting for an NPDES permit with the conservation district later this week. Please acknowledge receipt for us to attach to our submission package. Thanks!

Jeramy Bittinger, E.I.T.
Project Manager
LANDWORKS CIVIL DESIGN, LLC
Camp Hill & York, Pennsylvania
c. (717) 395-7629
jbittinger@landworkscd.com

1. PROJECT INFORMATION

Project Name: **2843 Mt. Pleasant Road**
Date of Review: **4/22/2022 03:28:15 PM**
Project Category: **Development, New commercial/industrial development (store, gas station, factory)**
Project Area: **109.29 acres**
County(s): **Lancaster**
Township/Municipality(s): **MOUNT JOY TOWNSHIP**
ZIP Code:
Quadrangle Name(s): **ELIZABETHTOWN**
Watersheds HUC 8: **Lower Susquehanna**
Watersheds HUC 12: **Donegal Creek; Little Chickies Creek**
Decimal Degrees: **40.146053, -76.543196**
Degrees Minutes Seconds: **40° 8' 45.7904" N, 76° 32' 35.5041" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	**Potential Impact**	**MORE INFORMATION REQUIRED, See Agency Response**

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

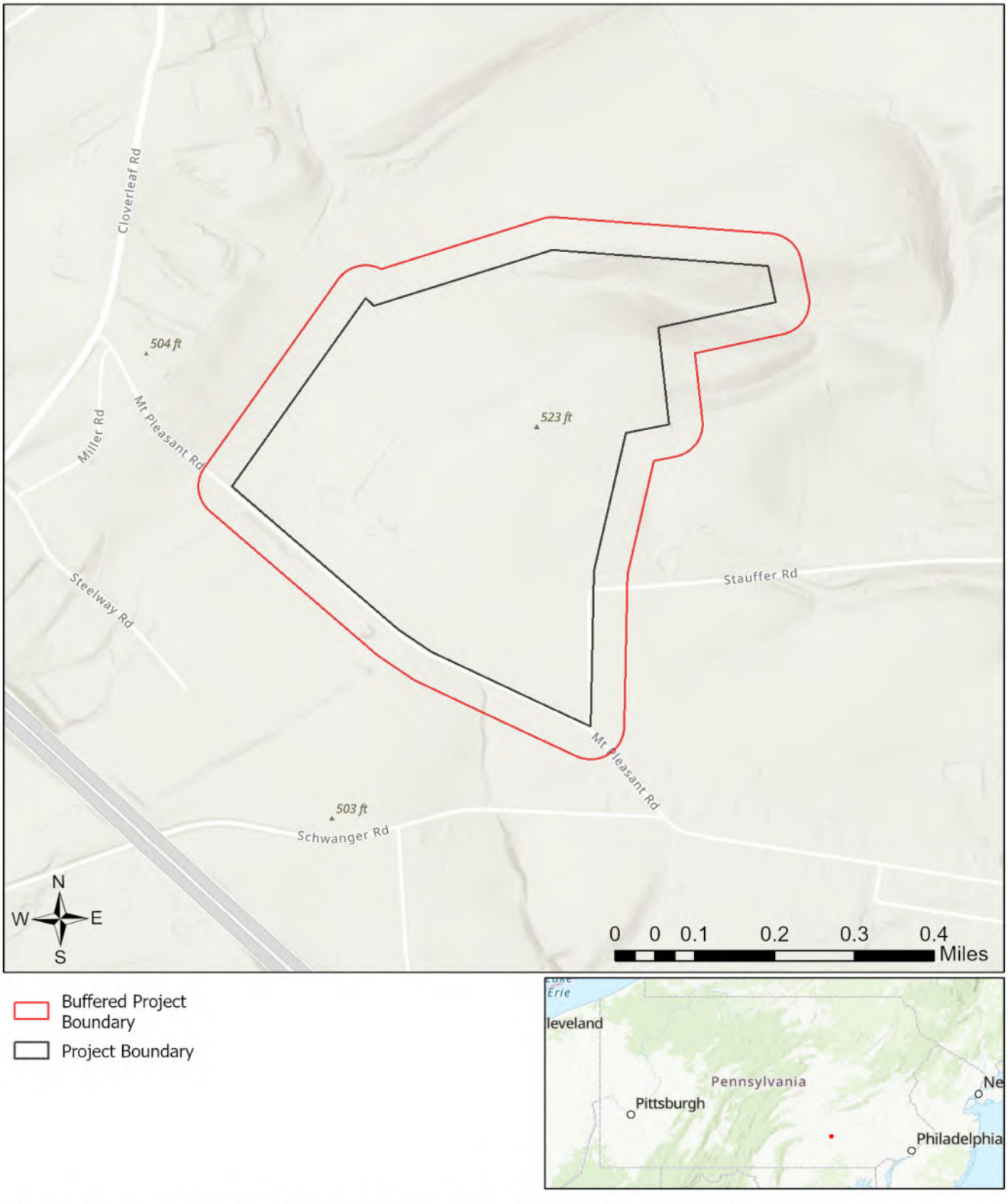
2843 Mt. Pleasant Road

Buffered Project Boundary

Project Boundary

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland,

2843 Mt. Pleasant Road



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

RESPONSE TO QUESTION(S) ASKED

Q1: Which of the following closest describes the proposed project?
Your answer is: No groundwater extraction (e.g., water supply well, well for irrigation, groundwater pumping to facilitate mining, pump-and-treat operation) is proposed in order to implement or support this project.

Q2: Describe how wastewater (effluent) will be handled (select one). For the purpose of this question, wastewater/effluent does not include stormwater runoff. If the project involves solely the renewal or modification of an existing discharge permit (e.g., NPDES permit), select from options 3, 4, 5, or 6 below.
Your answer is: All wastewater/effluent from this project/activity will be routed to an existing municipal wastewater treatment plant.

Q3: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.
Your answer is: Someone qualified to identify and delineate wetlands (holding a natural resource degree or equivalent work experience) has investigated the site, and determined that wetlands ARE located in or within 300 feet of the project area. (A written report from the wetland specialist, and detailed project maps should document this.)

Q4: The proposed project is in the range of the Indiana bat. Describe how the project will affect bat habitat (forests, woodlots and trees) and indicate what measures will be taken in consideration of this. Round acreages up to the nearest acre (e.g., 0.2 acres = 1 acre).
Your answer is: The project will affect 1 to 39 acres of forests, woodlots and trees.

Q5: Is tree removal, tree cutting or forest clearing of 40 acres or more necessary to implement all aspects of this project?
Your answer is: No

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jursidictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission
RESPONSE:
No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources
RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

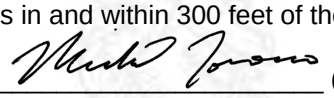
RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

Information Request: Conduct a Bog Turtle Habitat (Phase 1) Survey in accordance with USFWS Guidelines for Bog Turtle Surveys (April 2020). Evaluate all wetlands within 300 feet of the project area, which includes all areas that will be impacted by earth disturbance or project features (e.g., roads, structures, utility lines, lawns, detention basins, staging areas, etc.). IF THE PHASE 1 SURVEY IS DONE BY A QUALIFIED BOG TURTLE SURVEYOR (see https://www.fws.gov/northeast/pafo/endangered/surveys.html): 1) Send positive results to USFWS for concurrence, along with a project description documenting how impacts will be avoided. OR, conduct a Phase 2 survey and send Phase 1 and 2 results to USFWS for concurrence. 2) Send a courtesy copy of negative results to USFWS (label as "Negative Phase 1 Survey Results by Qualified Bog Turtle Surveyor: USFWS Courtesy Copy"). USFWS approval of negative results is not necessary when a qualified surveyor does the survey in full accordance with USFWS guidelines. IF THE PHASE 1 SURVEY IS NOT DONE BY A QUALIFIED SURVEYOR: Send ALL Phase 1 results to USFWS for concurrence, and if potential habitat is found, also send a project description documenting how impacts will be avoided. As a qualified bog turtle surveyor, I Michael Torocco (name) certify that I conducted a Phase 1 survey of all wetlands in and within 300 feet of the project area on 6/24/2022 (date) and determined that bog turtle habitat is absent.



_____ (Signature)

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email the following information to the agency(s) (see AGENCY CONTACT INFORMATION). Instructions for uploading project materials can be found here. This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies (but not USFWS).
*If information was requested by USFWS, applicants must email, or mail, project information to IR1_ESPenn@fws.gov to initiate a review. USFWS will not accept uploaded project materials.

Check-list of Minimum Materials to be submitted:
____Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.
____A map with the project boundary and/or a basic site plan(particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)
In addition to the materials listed above, USFWS REQUIRES the following
____**SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.
____Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)
____Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service
Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Andrew Young
Company/Business Name: ECS Mid Atlantic
Address: 52-6 Grumbacher Road
City, State, Zip: York PA 17406
Phone: (717) 767-4788 Fax: ( )
Email: ayoung@ecslimited.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

applicant/project proponent signature

6/28/22
date

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES EROSION AND SEDIMENT CONTROL (E&S) MODULE 1

Applicant: **PDC Northeast LPIV, LLC**

Project Site Name: **283 Commerce Center - Building #1**

Surface Water Name(s): **UNT to Little Chiques Creek**

Surface Water Use(s): **Trout Stocked Fishery, Migratory Fishes (TSF, MF)**

E&S PLAN INFORMATION

1. Describe the existing topographic features of the project site and the immediate surrounding area.

   See the "Existing Site Conditions" heading on page 1 of the E&S Report.

2. Complete the following table for soils present at the project site.

Map Unit Symbol	Map Unit Name	Acres	HSG	% of Disturbed Area	Depth (ft)	Hydric
See the “Soil Information” in Appendix B of the E&S Report.						

   Discuss any soil limitations and how the E&S Plan was designed to address those limitations.

   See the E&S Plan Sheet C-1302 "Soil Limitations & Resolutions" heading.

   If Hydric soils are present, is a wetland determination attached to this module? ☒ Yes ☐ No ☐ N/A

   If soils are known to be contaminated, 1) identify the pollutants exceeding Act 2 standards in the space provided below, 2) identify the extent of soil contamination on an E&S Plan Drawing that is attached to this module, and 3) describe the methods that will be used to avoid or minimize disturbance of the contaminated soils in the space provided below.

   N/A

3. Describe the characteristics of the earth disturbance activity, including the past, present and proposed land uses and the proposed alteration to the project site.

   See the "Existing Site Conditions" heading on page 1 and the "Earth Disturbance" heading on page 3 of the E&S Report.

4. Describe the volume and rate of runoff from the project site and its upstream watershed area.

   See the "Peak Discharge Rate" heading on page 7 of the PCSM Report
   See the "Runoff Volume" heading on page 8 of the PCSM Report.

5. Check boxes to indicate all BMPs that will be installed or implemented, identify plan numbers for the BMPs, and describe any deviations from the E&S Manual.

E&S BMPs	Plan No(s). Identified	Plan No(s). for O&M	Deviation(s) from E&S Manual
☒ Rock Construction Entrance	**C-1104**	**C-1302**	**Extended Rock Construction Entrance (150 ft)**
☐ Rock Construction Entrance with Wash Rack			
☐ Rumble Pad			
☐ Wheel Wash			
☐ Temporary and Permanent Access Roads			
☐ Waterbar			
☐ Broad-based Dip			
☐ Open-top Culvert			
☐ Water Deflector			
☐ Roadside Ditch			
☐ Ditch Relief Culvert			
☐ Turnout			
☐ Compost Sock Sediment Trap			
☐ Temporary Stream Crossing			
☐ Temporary Wetland Crossing			
☐ Turbidity Barrier (Silt Curtain)			
☐ Dewatering Work Areas			
☒ Pumped Water Filter Bag	**N/A**	**C-1303**	
☐ Sump Pit			
☐ Waste Management			
☒ Concrete Washout	**C-1104**	**C-1302**	
☒ Compost Filter Sock	**C-1100 - 1205**	**C-1302**	
☐ Compost Filter Berm			
☐ Weighted Sediment Filter Tube			
☒ Rock Filter Outlet	**N/A**	**C-1303**	
☐ Silt Fence (Filter Fabric Fence)			
☐ Reinforced Silt Fence			
☐ Super Silt Fence (Super Filter Fabric Fence)			

E&S BMPs	Plan No(s). Identified	Plan No(s). for O&M	Deviation(s) from E&S Manual
☐ Sediment Filter Log (Fiber Log)			
☐ Wood Chip Filter Berm			
☐ Straw Bale Barrier			
☒ Rock Filter	**C-1104**	**C-1304**	
☐ Vegetative Filter Strip			
☒ Inlet Filter Bag	**C-1204**	**C-1303**	
☒ Stone Inlet Protection	**C-1204**	**C-1303**	
☐ Runoff Conveyance (Channel)			
☐ Bench			
☒ Top-of-Slope Berm	**C-1204**	**C-1302**	
☐ Temporary Slope Pipe			
☒ Sediment Basin	**C-1100**	**C-1305**	
☐ Sediment Trap			
☒ Riprap Apron	**C-1103**	**C-1304**	
☐ Flow Transition Mat			
☐ Stilling Basin (Plunge Pool)			
☐ Stilling Well			
☐ Energy Dissipater			
☐ Drop Structure			
☐ Earthen Level Spreader			
☐ Structural Level Spreader			
☐ Surface Roughening			
☐ Vegetative Stabilization			
☒ Erosion Control Blanket	**C-1103**	**C-1303**	
☐ Soil Binders			
☐ Sodding			
☐ Cellular Confinement Systems			
☐ Alternative:			
☐ Alternative:			

Table 1 – For PAG-01 applicants, complete the requested information for each selected E&S BMP, where applicable.

Site Access BMPs

BMP Name	No.	Length (ft)	Width (ft)	% Slope	Spacing (ft)	Length of Upslope Drainage (ft)	Culvert Diameter (in)	Soil Type in Ditch	E&S Manual Figure/Detail No.
Rock Construction Entrance (RCE)									
RCE with Wash Rack									
Temporary and Permanent Access Roads – Crowned Roadway									
Temporary and Permanent Access Roads – Insloped Roadway									
Waterbar									
Broad-based Dip									
Open-top Culvert									
Water Deflector									
Roadside Ditch									
Ditch Relief Culvert									

Sediment Barriers / Filters

BMP Name	DA (ac)	Diameter (in)	Storage Capacity (cf)	Trap Height (in)	% Slope	Slope Length Above Barrier (ft)	Barrier Height (in)	E&S Manual Figure/Detail No.
Compost Sock Sediment Trap								
Compost Filter Sock								
Compost Filter Berm								
Silt Fence (Filter Fabric Fence)								
Super Silt Fence								
Sediment Filter Log								
Weighted Sediment Filter Tube								
Straw Bale Barrier								
Wood Chip Filter Berm								
Toe-of-Slope Berm								

Table 1 – For PAG-01 applicants, complete the requested information for each selected E&S BMP, where applicable.

Runoff Conveyance BMPs

BMP Name	Temporary	Design Storm	DA (ac)	Multiplier	Qr (cfs)	Q (cfs)	Manning's n	Va (fps)	V (fps)	D (ft)	d (ft)	Flow Depth Ratio	E&S Manual Figure/Detail No.
Vegetated Channel	☐												
Sodded Channel	☐												
Riprap Channel	☐												

Energy Reduction BMPs

BMP Name	Downstream Distance to Drainage Course (ft)	Downstream % Slope	DA (ac)	Discharge (cfs)	Manhole Depth (ft)	Inflow Pipe Diameter (in)	Outlet Pipe Diameter (in)	E&S Manual Figure/Detail No.
Level Spreader								
Drop Structure								

Stilling Basins / Wells

BMP Name	Pipe Diameter (in)	Discharge (cfs)	Well Diameter (in)	Depth of Well Below Invert (ft)	Basin Depth (ft)	Median Riprap Size (in)	Distance from Discharge Pipe to Basin Center (ft)	E&S Manual Figure/Detail No.
Stilling Basin								
Stilling Well								

Other BMPs

BMP Name	DA (ac)	Pipe Diameter (in)	Berm Height (in)	Length (ft)	% Slope	Vertical Spacing (ft)	Channel Depth (ft)	Riprap Size	Riprap Thickness (in)	Initial Width (ft)	Terminal Width (ft)	E&S Manual Figure/Detail No.
Temporary Slope Pipe												
Bench												
Rock Filter												
Riprap Apron												

For selected BMPs not identified in Table 1, report the name of the BMP and the Figure or Detail No. from the E&S Manual that will be used for design and implementation (PAG-01 only).

BMP Name	E&S Manual Figure/Detail No.	BMP Name	E&S Manual Figure/Detail No.

6. ☒ All applicable Standard E&S Worksheets from Appendix B of the E&S Manual have been completed and are attached.

7. ☒ Other worksheets or calculations equivalent to Appendix B of the E&S Manual have been completed and are attached.

8. Identify the E&S Plan Drawing number(s) that describes the sequence of BMP installation and removal in relation to the scheduling of earth disturbance activities, prior to, during and after earth disturbance activities that ensure the proper functioning of all BMPs.

   See the E&S Plan Sheet C-1301 "Construction Sequence" heading.

9. ☐ Supporting E&S calculations have been completed and are available upon request (PAG-01 only).

10. ☒ Supporting E&S calculations are attached to the NOI/application.

11. ☐ Plan drawings consist of standard Figures/Construction Details in E&S Manual (PAG-01 only).

12. ☒ Plan drawings have been developed for the project and are attached to the NOI/application.

13. ☒ BMPs will be inspected on a weekly basis and after measurable storm events (i.e., at least 0.25 inch).

14. Identify the following information relating to temporary stabilization measures on an E&S Plan Drawing and identify the Drawing No. below: 1) vegetative species, 2) % pure live seed, 3) seed application rate, 4) fertilizer type, 5) fertilizer application rate, 6) mulch type, 7) mulching rate, and 8) liming rate.

    E&S Plan Drawing No(s).: **C-1302**

15. Identify the following information relating to permanent stabilization measures on an E&S Plan Drawing and identify the Drawing No. below: 1) vegetative species, 2) % pure live seed, 3) seed application rate, 4) fertilizer type, 5) fertilizer application rate, 6) mulch type, 7) mulching rate, 8) liming rate, 9) anchor material, 10) anchoring method, 11) rate of anchor material application, 12) topsoil placement depth, and 13) seeding season dates.

    E&S Plan Drawing No(s).: **C-1302**

16. Describe the procedures that will be taken to ensure that recycling or disposal of materials associated with or from the project site will be conducted properly.

    See E&S Plan Sheet C-1301 "Recycling of Building Materials" heading.

17. Identify the presence of any naturally occurring geologic formations or soil conditions that may have the potential to cause pollution during earth disturbance activities. If such formations or conditions exist, identify BMPs that will be implemented to avoid or minimize potential pollution.

    See E&S Plan Sheet C-1301 "Geologic Soil Formation & Potential Pollution" heading.

18. Identify whether the potential exists for thermal impacts to surface waters from the earth disturbance activity. If such potential exists, identify BMPs that will be implemented to avoid, minimize, or mitigate potential thermal impacts.

    See E&S Plan Sheet C-1301 "Thermal Impacts Analysis" heading.

19. ☒ The E&S Plan has been planned, designed, and will be implemented to be consistent with the PCSM Plan.

20. If applicable, identify existing and proposed riparian forest buffers on E&S and PCSM Plan Drawings and identify the Drawing No(s) below (select N/A if not applicable).

E&S Plan Drawing No(s): ☒ N/A

PCSM Plan Drawing No(s):

E&S PLAN DEVELOPER

☒ I am trained and experienced in E&S control methods. ☒ I am a licensed professional.

Name:	**Joshua C. George, P.E.**	Title:	**Managing Partner**
Company:	**Landworks Civil Design, LLC**	Phone No.:	**717-891-1195**
Address:	**1195 Virginia Avenue**	Email:	**jgeorge@landworkscd.com**
City, State, ZIP:	**York, PA 17403**	License No.:	**PE0056897-E**
License Type:	**Professional Engineer**	Exp. Date:	**09/30/2023**

E&S Plan Developer Signature

01/04/2023

Date

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

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

Applicant: **PDC Northeast LPIV, LLC**

Project Site Name: **283 Commerce Center - Building #1**

Surface Water Name(s): **UNT to Little Chiques Creek**

Surface Water Use(s): **Trout Stocked Fishery, Migratory Fishes (TSF, MF)**

PCSM PLAN INFORMATION

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

Discharge Point(s)	BMP ID	BMP Name	BMP Manual	Latitude	Longitude	DA Treated (ac)
001	001	MRC #1	6.4.5	40.148290	-76.544503	47.98
001	002	SWM/BMP Facility #2	6.6.3	40.147921	-76.545646	7.54
003	003	MRC #3	6.4.5	40.145496	-76.548261	9.81
009	004	MRC #4	6.4.5	40.144015	-76.551396	6.29
001-008	005	Landscape Restoration	6.7.2	40.145709	-76.543616	39.68

Undetained Areas: 34.57 acre(s)

☐ The Project Qualifies as a Site Restoration Project (25 Pa. Code §102.8(n))

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

See the "Construction Sequence" heading on PCSM Plan Sheet C-1501

3. ☒ Plan drawings have been developed for the project and will be available on-site.
4. ☒ Plan drawings have been developed for the project and are attached to the NOI/application.
5. ☒ Recycling and proper disposal of materials associated with PCSM BMPs are addressed as part of long-term operation and maintenance of the PCSM BMPs.
6. Identify naturally occurring geologic formations or soil conditions that may have the potential to cause pollution after earth disturbance activities are completed and PCSM BMPs are operational and the applicant's plan to avoid or minimize potential pollution and its impacts. **See the "Geological Soil Formation & Potential Pollution" heading on PCSM Plan Sheet C-1501**
7. Identify whether the potential exists for thermal impacts to surface waters from post-construction stormwater. If such potential exists, identify BMPs that will be implemented to avoid, minimize, or mitigate potential thermal impacts. **See the "Thermal Impacts Analysis" heading on PCSM Plan Sheet C-1501**
8. ☒ The PCSM Plan has been planned, designed, and will be implemented to be consistent with the E&S Plan.
9. ☒ A pre-development site characterization has been performed.

STORMWATER ANALYSIS – RUNOFF VOLUME

Surface Water Name: **UNT to Little Chiques Creek** **Discharge Point(s):** **001-009**

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, Pre-Construction Conditions: CF ☐ Calculations attached
7. Stormwater Runoff Volume, Post-Construction Conditions: CF ☐ Calculations attached
8. Net Change (Post-Construction – Pre-Construction Volumes): CF
9. Identify all selected structural PCSM BMPs and provide the information requested. ☐ Calculations attached

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

Total Infiltration & ET Credits (CF):

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

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

Volume Required to Reduce/Manage (CF):

Total Credits (CF):

INFILTRATION INFORMATION	
BMP ID: 001-004	☒ Soil/geologic test results are attached.
1. No. of infiltration tests completed: **24**	
2. Method(s) used for infiltration testing: **Double Ring Infiltrometer and Percolation**	
3. Test Pit Identifiers (from PCSM Plan Drawings): **IT-1 to IT-12**	
4. Avg Infiltration Rate: **0.1** in/hr	5. FOS: **2** : 1
6. Infiltration rate used for design: **0.1** in/hr	
7. Separation distance between the BMP bottom and bedrock: **>2** feet	
8. Separation distance between the BMP bottom and seasonal high-water table: **>2** feet	
9. Comments: **Infiltration rates were very low across the site. Due to these low rate the Managed Release Concept (MRC) methodology was used for volume management.**	
BMP ID:	☐ Soil/geologic test results are attached.
1. No. of infiltration tests completed:	
2. Method(s) used for infiltration testing:	
3. Test Pit Identifiers (from PCSM Plan Drawings):	
4. Avg Infiltration Rate: in/hr	5. FOS: : 1
6. Infiltration Rate Used for Design: in/hr	
7. Separation distance between the BMP bottom and bedrock: feet	
8. Separation distance between the BMP bottom and seasonal high-water table: feet	
9. Comments:	
BMP ID:	☐ Soil/geologic test results are attached.
1. No. of infiltration tests completed:	
2. Method(s) used for infiltration testing:	
3. Test Pit Identifiers (from PCSM Plan Drawings):	
4. Avg Infiltration Rate: in/hr	5. FOS: : 1
6. Infiltration Rate Used for Design: in/hr	
7. Separation distance between the BMP bottom and bedrock: feet	
8. Separation distance between the BMP bottom and seasonal high-water table: feet	
9. Comments:	

STORMWATER ANALYSIS – PEAK RATE

Surface Water Name: **UNT to Little Chiques Creek** **Discharge Point(s):** **001-009**

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

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

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

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

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

Design Storm	Pre-Construction Peak Rate (cfs)	Post-Construction Peak Rate (with BMPs) (cfs)	Difference (cfs)
2-Year/24-Hour			
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.

LONG-TERM O&M

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

BMP ID	O&M Requirements
001	See PCSM Plan Sheet C-1502
002	See PCSM Plan Sheet C-1502
003	See PCSM Plan Sheet C-1502
004	See PCSM Plan Sheet C-1502
005	See PCSM Plan Sheet C-1502

PCSM PLAN DEVELOPER

☒ I am trained and experienced in PCSM methods.

☒ I am a licensed professional.

Name:	**Joshua C. George, P.E.**	Title:	**Managing Partner**
Company:	**Landworks Civil Design, LLC**	Phone No.:	**717-891-1195**
Address:	**1195 Virginia Avenue**	Email:	**jgeorge@landworkscd.com**
City, State, ZIP:	**York, PA 17403**	License No.:	**PE-056897-E**
License Type:	**Professional Engineer**	Exp. Date	**09/30/2023**

PCSM Plan Developer Signature

01/04/2023

Date

General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **283 Commerce Center - Building #1**

Application Type: **PAG-02 NOI**

County: **Lancaster**

Municipality: **Mount Joy Township**

Project Type: **Commercial Building**

(●) New Project ( ) Minor / Major Amendment

Area: **56.59** acres
(In Watershed)

Total Earth Disturbance: **56.59** acres
(In Watershed)

No. of Post-Construction Discharge Points: **1**

Start DP Numbering at: **001**

Discharge Point (DP) No.	Drainage Area (DA) (acres)	Earth Disturbance in DA (acres)	Existing Impervious in DA (acres)	Proposed Impervious in DA (acres)	Receiving Waters	Ch. 93 Class	Structural BMP(s)
001	56.59	56.59	0.00	39.87	UNT to Little Chiques Creek	TSF, MF	Yes
Undetained Areas							
Totals:	**56.59**	**56.59**		**39.87**			

Volume Management

Project: 283 Commerce Center - Building #1

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **2.98** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* **10** ☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Pervious as Meadow	0.00	B	58	1.448	0.27	0
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Pervious as Meadow	5.47	B	58	1.448	0.27	5,309
Pervious as Meadow	1.02	C	71	0.817	0.75	2,759
Pervious as Meadow	0.04	D	78	0.564	1.11	146
Forested (Good Condition)	0.00	B	55	1.636	0.19	0
Forested (Good Condition)	0.00	C	70	0.857	0.70	0
Forested (Good Condition)	0.00	D	77	0.597	1.06	0

TOTAL (ACRES):	**6.52**	**TOTAL (CF):**	**8,215**

Post-Construction Conditions: *No. Rows:* **7**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	39.87	N/A	98	0.041	2.75	397,791
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	11.58	B	58	1.448	0.27	11,238
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	2.07	C	71	0.817	0.75	5,626
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.04	D	78	0.564	1.11	179
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	2.78	B	61	1.279	0.36	3,608
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.25	C	74	0.703	0.90	812
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	D	80	0.500	1.24	0
TOTAL (ACRES):	**56.59**				**TOTAL (CF):**	**419,254**

NET CHANGE IN VOLUME TO MANAGE (CF): **411,039**

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* **2** *Start BMP Numbering at:* **1**

DP No.	BMP No.	BMP Name	MRC?	Discharge	Incremental BMP DA (acres)	Volume Routed to BMP (CF)	Infiltration / Vegetated Area (SF)	Infiltration Rate (in/hr)	Infiltration Period (hrs)	Vegeta-ted?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)
001	1	Rain Garden / Bioretention	Y	Off-Site	47.98	407,432	76,079	0.10	96	Yes	3.0	0	**6,847**	**57,744**
001	2	Dry Extended Detention Basin	-	Off-Site	7.54	7,658	76,712	0.00	96	Yes	0.5	0	**0**	**7,658**

Totals:	**6,847**	**65,402**

INFILTRATION & ET CREDITS (CF):	**72,249**
MANAGED RELEASE CREDIT (CF):	**342,841**
NET CHANGE IN VOLUME TO MANAGE (CF):	**411,039**
TOTAL CREDITS (CF):	**415,090**

VOLUME REQUIREMENT SATISFIED

Rate Control

Project: 283 Commerce Center - Building #1

Instructions | General | Volume | *Rate* | Quality

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**2.98**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.51**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.54**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.61**	Alternative 100-Year 24-Hour Storm Event (in):	

☑ **Report Summary of Peak Rates Only**

Attach model input and output data or other calculations to support the rates reported below.

	Peak Discharge Rates (cfs)			
	Pre-Construction	**Post-Construction**	**Net Change**	
2-Year Storm:	**11.32**	**6.97**	**-4.35**	***Rate Control Satisfied***
10-Year Storm:	**22.97**	**21.05**	**-1.92**	***Rate Control Satisfied***
50-Year Storm:	**39.49**	**31.06**	**-8.43**	***Rate Control Satisfied***
100-Year Storm:	**48.35**	**45.60**	**-2.75**	***Rate Control Satisfied***

Water Quality

Project: 283 Commerce Center - Building #1

PRINT

Instructions | General | Volume | Rate | *Quality*

Pre-Construction Pollutant Loads:

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	B	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	5.47	B	5,309	48.8	0.22	2.30	16.18	0.07	0.76
Pervious as Meadow	Grassland/Herbaceous	1.02	C	2,759	48.8	0.22	2.30	8.41	0.04	0.40
Pervious as Meadow	Grassland/Herbaceous	0.04	D	146	48.8	0.22	2.30	0.45	0.00	0.02
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	B	0	45.0	0.13	1.05	0.00	0.00	0.00

Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	C	0	45.0	0.13	1.05	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	D	0	45.0	0.13	1.05	0.00	0.00	0.00
	TOTAL (ACRES):	**6.52**					**TOTALS:**	**25.03**	**0.11**	**1.18**

Post-Construction Pollutant Loads (without BMPs):

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	39.87	N/A	397,791	65.0	0.29	2.05	######	7.20	50.92
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	11.58	B	11,238	48.8	0.22	2.30	34.25	0.15	1.61
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	2.07	C	5,626	48.8	0.22	2.30	17.14	0.08	0.81
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.04	D	179	48.8	0.22	2.30	0.54	0.00	0.03
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	2.78	B	3,608	78.0	0.25	1.25	17.57	0.06	0.28
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.25	C	812	78.0	0.25	1.25	3.96	0.01	0.06
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	D	0	78.0	0.25	1.25	0.00	0.00	0.00
	TOTAL (ACRES):	**56.59**					**TOTALS:**	**######**	**7.51**	**53.71**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS):	######	7.39	52.53

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* 7

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.15	B	58	1.448	0.27	146
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.89	C	71	0.817	0.75	2,420
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.03	D	78	0.564	1.11	121
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	D	80	0.500	1.24	0

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
2.05	0.01	0.06

☐ Other (attach calculations)

Structural BMP Water Quality Credits:

☑ *Use default BMP Outflows and Median BMP Outflow Concentrations*

DP No.	BMP No.	BMP Name	MRC?	BMP DA (acres)	Vol. Routed to BMP (CF)	Inf. & ET Credits (CF)	Capture & Buffer Credits (CF)	Outflow (CF)	Outflow Conc. (mg/L)			Pollutant Loads (lbs)		
									TSS	TP	TN	TSS	TP	TN

001	1	Rain Garden / Bioretention	Y	47.98	407,432	64,591		342,841	-	-	-	-	-	-
001	2	Dry Extended Detention Basin	-	7.54	7,658	7,658		0	22.00	0.19	1.22	0.00	0.00	0.00

	TSS	TP	TN
POLLUTANT LOADS FROM STRUCTURAL BMP (TREATED) OUTFLOWS (LBS):	**0.00**	**0.00**	**0.00**
POLLUTANT LOADS FROM UNTREATED STORMWATER (LBS):	**8.19**	**0.04**	**0.39**
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	**2.05**	**0.01**	**0.06**
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	**6.14**	**0.03**	**0.33**
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	**25.03**	**0.11**	**1.18**

WATER QUALITY REQUIREMENT SATISFIED

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my 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. I further certify that the structure, function, and calculations contained in this spreadsheet have not been modified in comparison to the spreadsheet DEP has posted to its website or, if modifications were made, an explanation of the modifications made is attached to this spreadsheet.

Timothy Fink, E.I.T.	1/3/2023
Spreadsheet User Name	Date

General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **283 Commerce Center - Building #1**

Application Type: **PAG-02 NOI**

County: **Lancaster**

Municipality: **Mount Joy Township**

Project Type: **Commercial Building**

(●) New Project ( ) Minor / Major Amendment

Area: **3.52** acres
(In Watershed)

Total Earth Disturbance: **2.93** acres
(In Watershed)

No. of Post-Construction Discharge Points: **1**

Start DP Numbering at: **002**

Discharge Point (DP) No.	Drainage Area (DA) (acres)	Earth Disturbance in DA (acres)	Existing Impervious in DA (acres)	Proposed Impervious in DA (acres)	Receiving Waters	Ch. 93 Class	Structural BMP(s)
002	3.52	2.93	0.00	0.00	UNT to Little Chiques Creek	TSF, MF	No
Undetained Areas							
Totals:	**3.52**	**2.93**					

PROJECT SITE MEETS SMALL SITE EXCEPTION - RATE WORKSHEET NOT REQUIRED

Volume Management

Project: 283 Commerce Center - Building #1

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **2.98** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* **10** ☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Pervious as Meadow	0.00	B	58	1.448	0.27	0
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Pervious as Meadow	3.55	B	58	1.448	0.27	3,449
Pervious as Meadow	2.04	C	71	0.817	0.75	5,550
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Forested (Good Condition)	0.00	B	55	1.636	0.19	0
Forested (Good Condition)	0.00	C	70	0.857	0.70	0
Forested (Good Condition)	0.00	D	77	0.597	1.06	0

TOTAL (ACRES):	**5.59**	**TOTAL (CF):**	**8,998**

Post-Construction Conditions: *No. Rows:* **7**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	1.79	B	58	1.448	0.27	1,738
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	1.14	C	71	0.817	0.75	3,093
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	D	80	0.500	1.24	0
TOTAL (ACRES):	**2.93**				**TOTAL (CF):**	**4,831**

NET CHANGE IN VOLUME TO MANAGE (CF): **-4,168**

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* *Start BMP Numbering at:*

DP No.	BMP No.	BMP Name	MRC?	Discharge	Incremental BMP DA (acres)	Volume Routed to BMP (CF)	Infiltration / Vegetated Area (SF)	Infiltration Rate (in/hr)	Infiltration Period (hrs)	Vegeta-ted?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)
												Totals:		

INFILTRATION & ET CREDITS (CF):	
NET CHANGE IN VOLUME TO MANAGE (CF):	**-4,168**
TOTAL CREDITS (CF):	

Rate Control

Project: 283 Commerce Center - Building #1

Instructions | General | Volume | *Rate* | Quality

SMALL SITE EXCEPTION SATISFIED: RATE CONTROL NOT REQUIRED

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**2.98**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.51**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.54**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.61**	Alternative 100-Year 24-Hour Storm Event (in):	

☑ **Report Summary of Peak Rates Only**

Attach model input and output data or other calculations to support the rates reported below.

	Peak Discharge Rates (cfs)			
	Pre-Construction	**Post-Construction**	**Net Change**	
2-Year Storm:	**7.76**	**2.60**	**-5.16**	***Rate Control Satisfied***
10-Year Storm:	**15.46**	**7.98**	**-7.48**	***Rate Control Satisfied***
50-Year Storm:	**26.30**	**16.81**	**-9.49**	***Rate Control Satisfied***
100-Year Storm:	**32.15**	**21.90**	**-10.25**	***Rate Control Satisfied***

Water Quality

Project: 283 Commerce Center - Building #1

PRINT

Instructions | General | Volume | Rate | *Quality*

Pre-Construction Pollutant Loads:

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	B	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	3.55	B	3,449	48.8	0.22	2.30	10.51	0.05	0.50
Pervious as Meadow	Grassland/Herbaceous	2.04	C	5,550	48.8	0.22	2.30	16.91	0.08	0.80
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	B	0	45.0	0.13	1.05	0.00	0.00	0.00

Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	C	0	45.0	0.13	1.05	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	D	0	45.0	0.13	1.05	0.00	0.00	0.00
	TOTAL (ACRES):	**5.59**					**TOTALS:**	**27.42**	**0.12**	**1.29**

Post-Construction Pollutant Loads (without BMPs):

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	1.79	B	1,738	48.8	0.22	2.30	5.30	0.02	0.25
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	1.14	C	3,093	48.8	0.22	2.30	9.42	0.04	0.44
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	B	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	C	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	D	0	78.0	0.25	1.25	0.00	0.00	0.00
	TOTAL (ACRES):	**2.93**					**TOTALS:**	**14.72**	**0.07**	**0.69**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS):	0.00	0.00	0.00

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* 7

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	1.79	B	58	1.448	0.27	1,738
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	1.14	C	71	0.817	0.75	3,099
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	D	80	0.500	1.24	0

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
3.68	0.01	0.10

☐ Other (attach calculations)

Structural BMP Water Quality Credits:

☑ *Use default BMP Outflows and Median BMP Outflow Concentrations*

DP No.	BMP No.	BMP Name	MRC?	BMP DA (acres)	Vol. Routed to BMP (CF)	Inf. & ET Credits (CF)	Capture & Buffer Credits (CF)	Outflow (CF)	Outflow Conc. (mg/L)			Pollutant Loads (lbs)		
									TSS	TP	TN	TSS	TP	TN

	TSS	TP	TN
POLLUTANT LOADS FROM STRUCTURAL BMP (TREATED) OUTFLOWS (LBS):	0.00	0.00	0.00
POLLUTANT LOADS FROM UNTREATED STORMWATER (LBS):	14.74	0.07	0.69
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	3.68	0.01	0.10
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	11.05	0.05	0.59
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	27.42	0.12	1.29

WATER QUALITY REQUIREMENT SATISFIED

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my 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. I further certify that the structure, function, and calculations contained in this spreadsheet have not been modified in comparison to the spreadsheet DEP has posted to its website or, if modifications were made, an explanation of the modifications made is attached to this spreadsheet.

Timothy Fink, E.I.T.	1/3/2023
Spreadsheet User Name	Date

General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **283 Commerce Center - Building #1**

Application Type: **PAG-02 NOI**

County: **Lancaster**

Municipality: **Mount Joy Township**

Project Type: **Commercial Building**

(●) New Project ( ) Minor / Major Amendment

Area: **22.50** acres
(In Watershed)

Total Earth Disturbance: **16.67** acres
(In Watershed)

No. of Post-Construction Discharge Points: **1**

Start DP Numbering at: **003**

Discharge Point (DP) No.	Drainage Area (DA) (acres)	Earth Disturbance in DA (acres)	Existing Impervious in DA (acres)	Proposed Impervious in DA (acres)	Receiving Waters	Ch. 93 Class	Structural BMP(s)
003	22.50	16.67	1.26	3.18	UNT to Little Chiques Creek	TSF, MF	Yes
Undetained Areas							
Totals:	**22.50**	**16.67**	**1.26**	**3.18**			

Volume Management

Project: 283 Commerce Center - Building #1

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **2.98** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* **11**

☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	1.01	N/A	98	0.041	2.75	10,069
Pervious as Meadow	0.24	B	58	1.448	0.27	234
Pervious as Meadow	0.01	C	71	0.817	0.75	31
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Pervious as Meadow	15.99	B	58	1.448	0.27	15,525
Pervious as Meadow	5.65	C	71	0.817	0.75	15,354
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Forested (Good Condition)	0.89	B	55	1.636	0.19	611
Forested (Good Condition)	0.00	C	70	0.857	0.70	0
Forested (Good Condition)	0.00	D	77	0.597	1.06	0

Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.56	N/A	98	0.041	2.75	5,543
TOTAL (ACRES):	**24.35**				**TOTAL (CF):**	**47,366**

Post-Construction Conditions: *No. Rows:* **8**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	3.18	N/A	98	0.041	2.75	31,677
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	5.89	B	58	1.448	0.27	5,722
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	4.07	C	71	0.817	0.75	11,066
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	2.21	B	61	1.279	0.36	2,866
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.77	C	74	0.703	0.90	2,490
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	D	80	0.500	1.24	0
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.56	N/A	98	0.041	2.75	5,543
TOTAL (ACRES):	**16.67**				**TOTAL (CF):**	**59,363**

NET CHANGE IN VOLUME TO MANAGE (CF): **11,996**

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* **1** *Start BMP Numbering at:* **3**

DP No.	BMP No.	BMP Name	MRC?	Discharge	Incremental BMP DA (acres)	Volume Routed to BMP (CF)	Infiltration / Vegetated Area (SF)	Infiltration Rate (in/hr)	Infiltration Period (hrs)	Vegeta-ted?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)

003	3	Rain Garden / Bioretention	Y	Off-Site	6.41	23,416	22,020	0.10	96	No	2.0	0	**1,982**	
												Totals:	**1,982**	

INFILTRATION & ET CREDITS (CF):	**1,982**
MANAGED RELEASE CREDIT (CF):	**21,434**
NET CHANGE IN VOLUME TO MANAGE (CF):	**11,996**
TOTAL CREDITS (CF):	**23,416**

VOLUME REQUIREMENT SATISFIED

Rate Control

Project: 283 Commerce Center - Building #1

Instructions | General | Volume | *Rate* | Quality

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**2.98**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.51**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.54**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.61**	Alternative 100-Year 24-Hour Storm Event (in):	

☑ **Report Summary of Peak Rates Only**

Attach model input and output data or other calculations to support the rates reported below.

	Peak Discharge Rates (cfs)			
	Pre-Construction	**Post-Construction**	**Net Change**	
2-Year Storm:	**29.53**	**14.94**	**-14.59**	***Rate Control Satisfied***
10-Year Storm:	**58.49**	**32.15**	**-26.34**	***Rate Control Satisfied***
50-Year Storm:	**100.25**	**66.55**	**-33.70**	***Rate Control Satisfied***
100-Year Storm:	**122.88**	**84.35**	**-38.53**	***Rate Control Satisfied***

Water Quality

Project: 283 Commerce Center - Building #1

PRINT

Instructions | General | Volume | Rate | *Quality*

Pre-Construction Pollutant Loads:

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	1.01	N/A	10,069	65.0	0.29	2.05	40.87	0.18	1.29
Pervious as Meadow	Grassland/Herbaceous	0.24	B	234	48.8	0.22	2.30	0.71	0.00	0.03
Pervious as Meadow	Grassland/Herbaceous	0.01	C	31	48.8	0.22	2.30	0.09	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	15.99	B	15,525	48.8	0.22	2.30	47.31	0.21	2.23
Pervious as Meadow	Grassland/Herbaceous	5.65	C	15,354	48.8	0.22	2.30	46.79	0.21	2.21
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.89	B	611	45.0	0.13	1.05	1.72	0.00	0.04

Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	C	0	45.0	0.13	1.05	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	D	0	45.0	0.13	1.05	0.00	0.00	0.00
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.56	N/A	5,543	65.0	0.29	2.05	22.50	0.10	0.71
	TOTAL (ACRES):	**24.35**					**TOTALS:**	**159.98**	**0.72**	**6.51**

Post-Construction Pollutant Loads (without BMPs):

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	3.18	N/A	31,677	65.0	0.29	2.05	128.57	0.57	4.05
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	5.89	B	5,722	48.8	0.22	2.30	17.43	0.08	0.82
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	4.07	C	11,066	48.8	0.22	2.30	33.72	0.15	1.59
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	2.21	B	2,866	78.0	0.25	1.25	13.96	0.04	0.22
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.77	C	2,490	78.0	0.25	1.25	12.13	0.04	0.19
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	D	0	78.0	0.25	1.25	0.00	0.00	0.00

Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.56	N/A	5,543	65.0	0.29	2.05	22.50	0.10	0.71
	TOTAL (ACRES):	**16.67**					**TOTALS:**	**228.31**	**0.99**	**7.59**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS): | **68.32** | **0.27** | **1.08**

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* **7**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	**1.96**	**N/A**	**98**	**0.041**	**2.75**	**19,554**
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	**4.65**	**B**	**58**	**1.448**	**0.27**	**4,514**
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	**1.29**	**C**	**71**	**0.817**	**0.75**	**3,507**
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	**0**	**D**	**78**	**0.564**	**1.11**	**0**
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**1.55**	**B**	**61**	**1.279**	**0.36**	**2,012**
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**0.25**	**C**	**74**	**0.703**	**0.90**	**813**
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**0**	**D**	**80**	**0.500**	**1.24**	**0**

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
8.26	**0.03**	**0.23**

☐ Other (attach calculations)

Structural BMP Water Quality Credits:

☑ *Use default BMP Outflows and Median BMP Outflow Concentrations*

DP No.	BMP No.	BMP Name	MRC?	BMP DA (acres)	Vol. Routed to BMP (CF)	Inf. & ET Credits (CF)	Capture & Buffer Credits (CF)	Outflow (CF)	Outflow Conc. (mg/L)			Pollutant Loads (lbs)		
									TSS	TP	TN	TSS	TP	TN
003	3	Rain Garden / Bioretention	Y	6.41	23,416	1,982		21,434	-	-	-	-	-	-

	TSS	TP	TN
POLLUTANT LOADS FROM STRUCTURAL BMP (TREATED) OUTFLOWS (LBS):	0.00	0.00	0.00
POLLUTANT LOADS FROM UNTREATED STORMWATER (LBS):	117.56	0.51	3.88
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	8.26	0.03	0.23
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	109.30	0.48	3.64
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	159.98	0.72	6.51

WATER QUALITY REQUIREMENT SATISFIED

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my 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. I further certify that the structure, function, and calculations contained in this spreadsheet have not been modified in comparison to the spreadsheet DEP has posted to its website or, if modifications were made, an explanation of the modifications made is attached to this spreadsheet.

Timothy Fink, E.I.T.	1/3/2023
Spreadsheet User Name	Date

General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **283 Commerce Center - Building #1**

Application Type: **PAG-02 NOI**

County: **Lancaster**

Municipality: **Mount Joy Township**

Project Type: **Commercial Building**

(●) New Project ( ) Minor / Major Amendment

Area: **0.49** acres
(In Watershed)

Total Earth Disturbance: **0.49** acres
(In Watershed)

No. of Post-Construction Discharge Points: **1**

Start DP Numbering at: **004**

Discharge Point (DP) No.	Drainage Area (DA) (acres)	Earth Disturbance in DA (acres)	Existing Impervious in DA (acres)	Proposed Impervious in DA (acres)	Receiving Waters	Ch. 93 Class	Structural BMP(s)
004	0.49	0.49	0.34	0.00	UNT to Little Chiques Creek	TSF, MF	No
Undetained Areas							
Totals:	**0.49**	**0.49**	**0.34**				

PROJECT SITE MEETS SMALL SITE EXCEPTION - RATE WORKSHEET NOT REQUIRED

Volume Management

Project: 283 Commerce Center - Building #1

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **2.98** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* **10**

☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.27	N/A	98	0.041	2.75	2,731
Pervious as Meadow	0.07	B	58	1.448	0.27	64
Pervious as Meadow	0.00	C	71	0.817	0.75	8
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Pervious as Meadow	5.20	B	58	1.448	0.27	5,046
Pervious as Meadow	0.49	C	71	0.817	0.75	1,339
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Forested (Good Condition)	0.00	B	55	1.636	0.19	0
Forested (Good Condition)	0.00	C	70	0.857	0.70	0
Forested (Good Condition)	0.00	D	77	0.597	1.06	0

TOTAL (ACRES):	**6.03**	**TOTAL (CF):**	**9,188**

Post-Construction Conditions: *No. Rows:* **7**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.36	B	58	1.448	0.27	352
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.12	C	71	0.817	0.75	333
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	D	80	0.500	1.24	0
TOTAL (ACRES):	**0.49**				**TOTAL (CF):**	**685**

NET CHANGE IN VOLUME TO MANAGE (CF): **-8,503**

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* *Start BMP Numbering at:*

DP No.	BMP No.	BMP Name	MRC?	Discharge	Incremental BMP DA (acres)	Volume Routed to BMP (CF)	Infiltration / Vegetated Area (SF)	Infiltration Rate (in/hr)	Infiltration Period (hrs)	Vegeta-ted?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)
												Totals:		

INFILTRATION & ET CREDITS (CF):	
NET CHANGE IN VOLUME TO MANAGE (CF):	**-8,503**
TOTAL CREDITS (CF):	

Rate Control

Project: 283 Commerce Center - Building #1

Instructions | General | Volume | *Rate* | Quality

SMALL SITE EXCEPTION SATISFIED: RATE CONTROL NOT REQUIRED

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**2.98**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.51**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.54**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.61**	Alternative 100-Year 24-Hour Storm Event (in):	

☑ **Report Summary of Peak Rates Only**

Attach model input and output data or other calculations to support the rates reported below.

	Peak Discharge Rates (cfs)			
	Pre-Construction	**Post-Construction**	**Net Change**	
2-Year Storm:	**8.89**	**2.90**	**-5.99**	***Rate Control Satisfied***
10-Year Storm:	**17.77**	**7.78**	**-9.99**	***Rate Control Satisfied***
50-Year Storm:	**30.35**	**15.49**	**-14.86**	***Rate Control Satisfied***
100-Year Storm:	**37.10**	**19.84**	**-17.26**	***Rate Control Satisfied***

Water Quality

Project: 283 Commerce Center - Building #1

PRINT

Instructions | General | Volume | Rate | *Quality*

Pre-Construction Pollutant Loads:

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.27	N/A	2,731	65.0	0.29	2.05	11.09	0.05	0.35
Pervious as Meadow	Grassland/Herbaceous	0.07	B	64	48.8	0.22	2.30	0.19	0.00	0.01
Pervious as Meadow	Grassland/Herbaceous	0.00	C	8	48.8	0.22	2.30	0.02	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	5.20	B	5,046	48.8	0.22	2.30	15.38	0.07	0.72
Pervious as Meadow	Grassland/Herbaceous	0.49	C	1,339	48.8	0.22	2.30	4.08	0.02	0.19
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	B	0	45.0	0.13	1.05	0.00	0.00	0.00

Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	C	0	45.0	0.13	1.05	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	D	0	45.0	0.13	1.05	0.00	0.00	0.00
	TOTAL (ACRES):	**6.03**					**TOTALS:**	**30.76**	**0.14**	**1.28**

Post-Construction Pollutant Loads (without BMPs):

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.36	B	352	48.8	0.22	2.30	1.07	0.00	0.05
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.12	C	333	48.8	0.22	2.30	1.01	0.00	0.05
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	B	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	C	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	D	0	78.0	0.25	1.25	0.00	0.00	0.00
	TOTAL (ACRES):	**0.49**					**TOTALS:**	**2.09**	**0.01**	**0.10**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS):	0.00	0.00	0.00

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* 7

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.36	B	58	1.448	0.27	349
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.12	C	71	0.817	0.75	326
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	D	80	0.500	1.24	0

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
0.51	0.00	0.01

☐ Other (attach calculations)

Structural BMP Water Quality Credits:

☑ *Use default BMP Outflows and Median BMP Outflow Concentrations*

DP No.	BMP No.	BMP Name	MRC?	BMP DA (acres)	Vol. Routed to BMP (CF)	Inf. & ET Credits (CF)	Capture & Buffer Credits (CF)	Outflow (CF)	Outflow Conc. (mg/L)			Pollutant Loads (lbs)		
									TSS	TP	TN	TSS	TP	TN

	TSS	TP	TN
POLLUTANT LOADS FROM STRUCTURAL BMP (TREATED) OUTFLOWS (LBS):	0.00	0.00	0.00
POLLUTANT LOADS FROM UNTREATED STORMWATER (LBS):	2.06	0.01	0.10
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	0.51	0.00	0.01
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	1.54	0.01	0.08
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	30.76	0.14	1.28

WATER QUALITY REQUIREMENT SATISFIED

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my 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. I further certify that the structure, function, and calculations contained in this spreadsheet have not been modified in comparison to the spreadsheet DEP has posted to its website or, if modifications were made, an explanation of the modifications made is attached to this spreadsheet.

Timothy Fink, E.I.T.	1/3/2023
Spreadsheet User Name	Date

General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **283 Commerce Center - Building #1**

Application Type: **PAG-02 NOI**

County: **Lancaster**

Municipality: **Mount Joy Township**

Project Type: **Commercial Building**

(●) New Project ( ) Minor / Major Amendment

Area: **6.85** acres
(In Watershed)

Total Earth Disturbance: **6.85** acres
(In Watershed)

No. of Post-Construction Discharge Points: **1**

Start DP Numbering at: **005**

Discharge Point (DP) No.	Drainage Area (DA) (acres)	Earth Disturbance in DA (acres)	Existing Impervious in DA (acres)	Proposed Impervious in DA (acres)	Receiving Waters	Ch. 93 Class	Structural BMP(s)
005	6.85	6.85	0.00	0.87	UNT to Little Chiques Creek	TSF, MF	Yes
Undetained Areas							
Totals:	**6.85**	**6.85**		**0.87**			

Volume Management

Project: 283 Commerce Center - Building #1

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **2.98** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* **11** ☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Pervious as Meadow	0.00	B	58	1.448	0.27	0
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Pervious as Meadow	9.08	B	58	1.448	0.27	8,812
Pervious as Meadow	3.27	C	71	0.817	0.75	8,883
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Forested (Good Condition)	0.00	B	55	1.636	0.19	0
Forested (Good Condition)	0.00	C	70	0.857	0.70	0
Forested (Good Condition)	0.00	D	77	0.597	1.06	0

Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.37	N/A	98	0.041	2.75	3,662
TOTAL (ACRES):	**12.71**				**TOTAL (CF):**	**21,357**

Post-Construction Conditions: *No. Rows:* 8

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.87	N/A	98	0.041	2.75	8,707
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	3.18	B	58	1.448	0.27	3,088
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	1.63	C	71	0.817	0.75	4,421
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.59	B	61	1.279	0.36	765
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.21	C	74	0.703	0.90	692
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	D	80	0.500	1.24	0
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.37	N/A	98	0.041	2.75	3,662
TOTAL (ACRES):	**6.85**				**TOTAL (CF):**	**21,336**

NET CHANGE IN VOLUME TO MANAGE (CF): -21

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* *Start BMP Numbering at:*

DP No.	BMP No.	BMP Name	MRC?	Discharge	Incremental BMP DA (acres)	Volume Routed to BMP (CF)	Infiltration / Vegetated Area (SF)	Infiltration Rate (in/hr)	Infiltration Period (hrs)	Vegeta-ted?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)

Totals:

INFILTRATION & ET CREDITS (CF):	
NET CHANGE IN VOLUME TO MANAGE (CF):	**-21**
TOTAL CREDITS (CF):	

Rate Control

Project: 283 Commerce Center - Building #1

Instructions | General | Volume | *Rate* | Quality

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**2.98**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.51**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.54**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.61**	Alternative 100-Year 24-Hour Storm Event (in):	

☑ **Report Summary of Peak Rates Only**

Attach model input and output data or other calculations to support the rates reported below.

	Peak Discharge Rates (cfs)			
	Pre-Construction	**Post-Construction**	**Net Change**	
2-Year Storm:	**15.30**	**7.04**	**-8.26**	***Rate Control Satisfied***
10-Year Storm:	**31.16**	**17.19**	**-13.97**	***Rate Control Satisfied***
50-Year Storm:	**53.66**	**33.49**	**-20.17**	***Rate Control Satisfied***
100-Year Storm:	**65.72**	**42.81**	**-22.91**	***Rate Control Satisfied***

Water Quality

Project: 283 Commerce Center - Building #1

PRINT

Instructions | General | Volume | Rate | *Quality*

Pre-Construction Pollutant Loads:

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	B	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	9.08	B	8,812	48.8	0.22	2.30	26.85	0.12	1.27
Pervious as Meadow	Grassland/Herbaceous	3.27	C	8,883	48.8	0.22	2.30	27.07	0.12	1.28
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	B	0	45.0	0.13	1.05	0.00	0.00	0.00

Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	C	0	45.0	0.13	1.05	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	D	0	45.0	0.13	1.05	0.00	0.00	0.00
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.37	N/A	3,662	65.0	0.29	2.05	14.86	0.07	0.47
	TOTAL (ACRES):	**12.71**					**TOTALS:**	**68.78**	**0.31**	**3.01**

Post-Construction Pollutant Loads (without BMPs):

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.87	N/A	8,707	65.0	0.29	2.05	35.34	0.16	1.11
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	3.18	B	3,088	48.8	0.22	2.30	9.41	0.04	0.44
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	1.63	C	4,421	48.8	0.22	2.30	13.47	0.06	0.63
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.59	B	765	78.0	0.25	1.25	3.73	0.01	0.06
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.21	C	692	78.0	0.25	1.25	3.37	0.01	0.05
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	D	0	78.0	0.25	1.25	0.00	0.00	0.00

Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.37	N/A	3,662	65.0	0.29	2.05	14.86	0.07	0.47
	TOTAL (ACRES):	**6.85**					**TOTALS:**	**80.18**	**0.35**	**2.78**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS):	**11.40**	**0.04**	**0.00**

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* **7**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	**0.87**	**N/A**	**98**	**0.041**	**2.75**	**8,680**
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	**3.02**	**B**	**58**	**1.448**	**0.27**	**2,932**
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	**1.79**	**C**	**71**	**0.817**	**0.75**	**4,866**
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	**0**	**D**	**78**	**0.564**	**1.11**	**0**
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**0.59**	**B**	**61**	**1.279**	**0.36**	**766**
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**0.21**	**C**	**74**	**0.703**	**0.90**	**683**
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**0**	**D**	**80**	**0.500**	**1.24**	**0**

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
7.04	**0.03**	**0.20**

☐ Other (attach calculations)

Structural BMP Water Quality Credits:

☑ *Use default BMP Outflows and Median BMP Outflow Concentrations*

DP No.	BMP No.	BMP Name	MRC?	BMP DA (acres)	Vol. Routed to BMP (CF)	Inf. & ET Credits (CF)	Capture & Buffer Credits (CF)	Outflow (CF)	Outflow Conc. (mg/L)			Pollutant Loads (lbs)		
									TSS	TP	TN	TSS	TP	TN

	TSS	TP	TN
POLLUTANT LOADS FROM STRUCTURAL BMP (TREATED) OUTFLOWS (LBS):	0.00	0.00	0.00
POLLUTANT LOADS FROM UNTREATED STORMWATER (LBS):	66.05	0.29	2.34
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	7.04	0.03	0.20
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	59.00	0.26	2.14
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	68.78	0.31	3.01

WATER QUALITY REQUIREMENT SATISFIED

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my 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. I further certify that the structure, function, and calculations contained in this spreadsheet have not been modified in comparison to the spreadsheet DEP has posted to its website or, if modifications were made, an explanation of the modifications made is attached to this spreadsheet.

Timothy Fink, E.I.T.	1/3/2023
Spreadsheet User Name	Date

General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **283 Commerce Center - Building #1**

Application Type: **PAG-02 NOI**

County: **Lancaster**

Municipality: **Mount Joy Township**

Project Type: **Commercial Building**

(●) New Project ( ) Minor / Major Amendment

Area: **0.78** acres
(In Watershed)

Total Earth Disturbance: **0.78** acres
(In Watershed)

No. of Post-Construction Discharge Points: **1**

Start DP Numbering at: **006**

Discharge Point (DP) No.	Drainage Area (DA) (acres)	Earth Disturbance in DA (acres)	Existing Impervious in DA (acres)	Proposed Impervious in DA (acres)	Receiving Waters	Ch. 93 Class	Structural BMP(s)
006	0.78	0.78	0.00	0.00	UNT to Little Chiques Creek	TSF, MF	No
Undetained Areas							
Totals:	**0.78**	**0.78**					

PROJECT SITE MEETS SMALL SITE EXCEPTION - RATE WORKSHEET NOT REQUIRED

Volume Management

Project: 283 Commerce Center - Building #1

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **2.98** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* **10** ☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Pervious as Meadow	0.00	B	58	1.448	0.27	0
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Pervious as Meadow	11.31	B	58	1.448	0.27	10,976
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Forested (Good Condition)	0.00	B	55	1.636	0.19	0
Forested (Good Condition)	0.00	C	70	0.857	0.70	0
Forested (Good Condition)	0.00	D	77	0.597	1.06	0

TOTAL (ACRES):	**11.31**	**TOTAL (CF):**	**10,976**

Post-Construction Conditions: *No. Rows:* **7**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.78	B	58	1.448	0.27	757
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	C	71	0.817	0.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	D	80	0.500	1.24	0
TOTAL (ACRES):	**0.78**				**TOTAL (CF):**	**757**

NET CHANGE IN VOLUME TO MANAGE (CF): **-10,219**

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* *Start BMP Numbering at:*

DP No.	BMP No.	BMP Name	MRC?	Discharge	Incremental BMP DA (acres)	Volume Routed to BMP (CF)	Infiltration / Vegetated Area (SF)	Infiltration Rate (in/hr)	Infiltration Period (hrs)	Vegeta-ted?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)
												Totals:		

INFILTRATION & ET CREDITS (CF):	
NET CHANGE IN VOLUME TO MANAGE (CF):	**-10,219**
TOTAL CREDITS (CF):	

Rate Control

Project: 283 Commerce Center - Building #1

Instructions | General | Volume | *Rate* | Quality

SMALL SITE EXCEPTION SATISFIED: RATE CONTROL NOT REQUIRED

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**2.98**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.51**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.54**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.61**	Alternative 100-Year 24-Hour Storm Event (in):	

☑ **Report Summary of Peak Rates Only**

Attach model input and output data or other calculations to support the rates reported below.

	Peak Discharge Rates (cfs)			
	Pre-Construction	**Post-Construction**	**Net Change**	
2-Year Storm:	**11.89**	**0.21**	**-11.68**	***Rate Control Satisfied***
10-Year Storm:	**25.30**	**1.16**	**-24.14**	***Rate Control Satisfied***
50-Year Storm:	**44.74**	**2.90**	**-41.84**	***Rate Control Satisfied***
100-Year Storm:	**55.26**	**3.95**	**-51.31**	***Rate Control Satisfied***

Water Quality

Project: 283 Commerce Center - Building #1

PRINT

Instructions | General | Volume | Rate | *Quality*

Pre-Construction Pollutant Loads:

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	B	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	11.31	B	10,976	48.8	0.22	2.30	33.45	0.15	1.58
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	B	0	45.0	0.13	1.05	0.00	0.00	0.00

Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	C	0	45.0	0.13	1.05	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	D	0	45.0	0.13	1.05	0.00	0.00	0.00
	TOTAL (ACRES):	**11.31**					**TOTALS:**	**33.45**	**0.15**	**1.58**

Post-Construction Pollutant Loads (without BMPs):

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.78	B	757	48.8	0.22	2.30	2.31	0.01	0.11
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	B	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	C	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	D	0	78.0	0.25	1.25	0.00	0.00	0.00
	TOTAL (ACRES):	**0.78**					**TOTALS:**	**2.31**	**0.01**	**0.11**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS):	0.00	0.00	0.00

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* 7

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.78	B	58	1.448	0.27	757
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0	C	71	0.817	0.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	D	80	0.500	1.24	0

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
0.58	0.00	0.02

☐ Other (attach calculations)

Structural BMP Water Quality Credits:

☑ *Use default BMP Outflows and Median BMP Outflow Concentrations*

DP No.	BMP No.	BMP Name	MRC?	BMP DA (acres)	Vol. Routed to BMP (CF)	Inf. & ET Credits (CF)	Capture & Buffer Credits (CF)	Outflow (CF)	Outflow Conc. (mg/L)			Pollutant Loads (lbs)		
									TSS	TP	TN	TSS	TP	TN

	TSS	TP	TN
POLLUTANT LOADS FROM STRUCTURAL BMP (TREATED) OUTFLOWS (LBS):	0.00	0.00	0.00
POLLUTANT LOADS FROM UNTREATED STORMWATER (LBS):	2.31	0.01	0.11
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	0.58	0.00	0.02
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	1.73	0.01	0.09
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	33.45	0.15	1.58

WATER QUALITY REQUIREMENT SATISFIED

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my 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. I further certify that the structure, function, and calculations contained in this spreadsheet have not been modified in comparison to the spreadsheet DEP has posted to its website or, if modifications were made, an explanation of the modifications made is attached to this spreadsheet.

Timothy Fink, E.I.T.	1/3/2023
Spreadsheet User Name	Date

General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **283 Commerce Center - Building #1**

Application Type: **PAG-02 NOI**

County: **Lancaster**

Municipality: **Mount Joy Township**

Project Type: **Commercial Building**

(●) New Project ( ) Minor / Major Amendment

Area: **2.19** acres
(In Watershed)

Total Earth Disturbance: **2.19** acres
(In Watershed)

No. of Post-Construction Discharge Points: **1**

Start DP Numbering at: **007**

Discharge Point (DP) No.	Drainage Area (DA) (acres)	Earth Disturbance in DA (acres)	Existing Impervious in DA (acres)	Proposed Impervious in DA (acres)	Receiving Waters	Ch. 93 Class	Structural BMP(s)
007	2.19	2.19	0.00	0.00	UNT to Little Chiques Creek	TSF, MF	No
Undetained Areas							
Totals:	**2.19**	**2.19**					

PROJECT SITE MEETS SMALL SITE EXCEPTION - RATE WORKSHEET NOT REQUIRED

Volume Management

Project: 283 Commerce Center - Building #1

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **2.98** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* **10** ☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Pervious as Meadow	0.00	B	58	1.448	0.27	0
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Pervious as Meadow	7.85	B	58	1.448	0.27	7,619
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Forested (Good Condition)	0.00	B	55	1.636	0.19	0
Forested (Good Condition)	0.00	C	70	0.857	0.70	0
Forested (Good Condition)	0.00	D	77	0.597	1.06	0

TOTAL (ACRES):	**7.85**	**TOTAL (CF):**	**7,619**

Post-Construction Conditions: *No. Rows:* 7

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	2.19	B	58	1.448	0.27	2,121
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	C	71	0.817	0.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	D	80	0.500	1.24	0
TOTAL (ACRES):	**2.19**				**TOTAL (CF):**	**2,121**

NET CHANGE IN VOLUME TO MANAGE (CF): -5,497

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* *Start BMP Numbering at:*

DP No.	BMP No.	BMP Name	MRC?	Discharge	Incremental BMP DA (acres)	Volume Routed to BMP (CF)	Infiltration / Vegetated Area (SF)	Infiltration Rate (in/hr)	Infiltration Period (hrs)	Vegeta-ted?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)
												Totals:		

INFILTRATION & ET CREDITS (CF):	
NET CHANGE IN VOLUME TO MANAGE (CF):	**-5,497**
TOTAL CREDITS (CF):	

Rate Control

Project: 283 Commerce Center - Building #1

Instructions | General | Volume | *Rate* | Quality

SMALL SITE EXCEPTION SATISFIED: RATE CONTROL NOT REQUIRED

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**2.98**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.51**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.54**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.61**	Alternative 100-Year 24-Hour Storm Event (in):	

☑ **Report Summary of Peak Rates Only**

Attach model input and output data or other calculations to support the rates reported below.

	Peak Discharge Rates (cfs)			
	Pre-Construction	**Post-Construction**	**Net Change**	
2-Year Storm:	**11.33**	**0.59**	**-10.74**	***Rate Control Satisfied***
10-Year Storm:	**23.83**	**3.26**	**-20.57**	***Rate Control Satisfied***
50-Year Storm:	**41.76**	**8.14**	**-33.62**	***Rate Control Satisfied***
100-Year Storm:	**51.40**	**11.07**	**-40.33**	***Rate Control Satisfied***

Water Quality

Project: 283 Commerce Center - Building #1

PRINT

Instructions | General | Volume | Rate | *Quality*

Pre-Construction Pollutant Loads:

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	B	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	7.85	B	7,619	48.8	0.22	2.30	23.22	0.10	1.09
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	B	0	45.0	0.13	1.05	0.00	0.00	0.00

Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	C	0	45.0	0.13	1.05	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	D	0	45.0	0.13	1.05	0.00	0.00	0.00
	TOTAL (ACRES):	**7.85**					**TOTALS:**	**23.22**	**0.10**	**1.09**

Post-Construction Pollutant Loads (without BMPs):

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	2.19	B	2,121	48.8	0.22	2.30	6.46	0.03	0.30
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	B	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	C	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	D	0	78.0	0.25	1.25	0.00	0.00	0.00
	TOTAL (ACRES):	**2.19**					**TOTALS:**	**6.46**	**0.03**	**0.30**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS):	0.00	0.00	0.00

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* 7

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	2.19	B	58	1.448	0.27	2,126
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0	C	71	0.817	0.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	D	80	0.500	1.24	0

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
1.62	0.01	0.05

☐ Other (attach calculations)

Structural BMP Water Quality Credits:

☑ *Use default BMP Outflows and Median BMP Outflow Concentrations*

DP No.	BMP No.	BMP Name	MRC?	BMP DA (acres)	Vol. Routed to BMP (CF)	Inf. & ET Credits (CF)	Capture & Buffer Credits (CF)	Outflow (CF)	Outflow Conc. (mg/L)			Pollutant Loads (lbs)		
									TSS	TP	TN	TSS	TP	TN

	TSS	TP	TN
POLLUTANT LOADS FROM STRUCTURAL BMP (TREATED) OUTFLOWS (LBS):	0.00	0.00	0.00
POLLUTANT LOADS FROM UNTREATED STORMWATER (LBS):	6.48	0.03	0.31
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	1.62	0.01	0.05
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	4.86	0.02	0.26
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	23.22	0.10	1.09

WATER QUALITY REQUIREMENT SATISFIED

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my 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. I further certify that the structure, function, and calculations contained in this spreadsheet have not been modified in comparison to the spreadsheet DEP has posted to its website or, if modifications were made, an explanation of the modifications made is attached to this spreadsheet.

Timothy Fink, E.I.T.	1/3/2023
Spreadsheet User Name	Date

General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **283 Commerce Center - Building #1**

Application Type: **PAG-02 NOI**

County: **Lancaster**

Municipality: **Mount Joy Township**

Project Type: **Commercial Building**

(●) New Project ( ) Minor / Major Amendment

Area: **14.42** acres
(In Watershed)

Total Earth Disturbance: **4.84** acres
(In Watershed)

No. of Post-Construction Discharge Points: **1**

Start DP Numbering at: **008**

Discharge Point (DP) No.	Drainage Area (DA) (acres)	Earth Disturbance in DA (acres)	Existing Impervious in DA (acres)	Proposed Impervious in DA (acres)	Receiving Waters	Ch. 93 Class	Structural BMP(s)
008	14.42	4.84	0.00	0.00	UNT to Little Chiques Creek	TSF, MF	No
Undetained Areas							
Totals:	**14.42**	**4.84**					

PROJECT SITE MEETS SMALL SITE EXCEPTION - RATE WORKSHEET NOT REQUIRED

Volume Management

Project: 283 Commerce Center - Building #1

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **2.98** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* **10** ☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Impervious as Meadow	0.00	B	58	1.448	0.27	0
Impervious as Meadow	0.00	C	71	0.817	0.75	0
Impervious as Meadow	0.00	D	78	0.564	1.11	0
Pervious as Meadow	11.25	B	58	1.448	0.27	10,919
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.90	D	78	0.564	1.11	3,656
Forested (Good Condition)	4.73	B	55	1.636	0.19	3,257
Forested (Good Condition)	0.00	C	70	0.857	0.70	0
Forested (Good Condition)	0.00	D	77	0.597	1.06	0

TOTAL (ACRES):	**16.88**	**TOTAL (CF):**	**17,831**

Post-Construction Conditions: *No. Rows:* 7

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	3.94	B	58	1.448	0.27	3,827
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	C	71	0.817	0.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.90	D	78	0.564	1.11	3,624
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	D	80	0.500	1.24	0
TOTAL (ACRES):	**4.84**				**TOTAL (CF):**	**7,450**

NET CHANGE IN VOLUME TO MANAGE (CF): -10,381

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* *Start BMP Numbering at:*

DP No.	BMP No.	BMP Name	MRC?	Discharge	Incremental BMP DA (acres)	Volume Routed to BMP (CF)	Infiltration / Vegetated Area (SF)	Infiltration Rate (in/hr)	Infiltration Period (hrs)	Vegeta-ted?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)
												Totals:		

INFILTRATION & ET CREDITS (CF):	
NET CHANGE IN VOLUME TO MANAGE (CF):	**-10,381**
TOTAL CREDITS (CF):	

Rate Control

Project: 283 Commerce Center - Building #1

Instructions | General | Volume | *Rate* | Quality

SMALL SITE EXCEPTION SATISFIED: RATE CONTROL NOT REQUIRED

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**2.98**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.51**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.54**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.61**	Alternative 100-Year 24-Hour Storm Event (in):	

☑ **Report Summary of Peak Rates Only**

Attach model input and output data or other calculations to support the rates reported below.

	Peak Discharge Rates (cfs)			
	Pre-Construction	**Post-Construction**	**Net Change**	
2-Year Storm:	**18.68**	**2.76**	**-15.92**	***Rate Control Satisfied***
10-Year Storm:	**41.45**	**9.52**	**-31.93**	***Rate Control Satisfied***
50-Year Storm:	**76.44**	**21.03**	**-55.41**	***Rate Control Satisfied***
100-Year Storm:	**95.86**	**27.76**	**-68.10**	***Rate Control Satisfied***

Water Quality

Project: 283 Commerce Center - Building #1

PRINT

Instructions | General | Volume | Rate | *Quality*

Pre-Construction Pollutant Loads:

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Impervious as Meadow	Grassland/Herbaceous	0.00	B	0	48.8	0.22	2.30	0.00	0.00	0.00
Impervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Impervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	11.25	B	10,919	48.8	0.22	2.30	33.27	0.15	1.57
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.90	D	3,656	48.8	0.22	2.30	11.14	0.05	0.53
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	4.73	B	3,257	45.0	0.13	1.05	9.15	0.03	0.21

Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	C	0	45.0	0.13	1.05	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	D	0	45.0	0.13	1.05	0.00	0.00	0.00
	TOTAL (ACRES):	**16.88**					**TOTALS:**	**53.56**	**0.23**	**2.31**

Post-Construction Pollutant Loads (without BMPs):

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	3.94	B	3,827	48.8	0.22	2.30	11.66	0.05	0.55
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.90	D	3,624	48.8	0.22	2.30	11.04	0.05	0.52
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	B	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	C	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	D	0	78.0	0.25	1.25	0.00	0.00	0.00
	TOTAL (ACRES):	**4.84**					**TOTALS:**	**22.70**	**0.10**	**1.07**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS):	0.00	0.00	0.00

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* 7

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0	N/A	98	0.041	2.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	3.94	B	58	1.448	0.27	3,825
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0	C	71	0.817	0.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.9	D	78	0.564	1.11	3,641
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	B	61	1.279	0.36	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0	D	80	0.500	1.24	0

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
5.69	0.02	0.16

☐ Other (attach calculations)

Structural BMP Water Quality Credits:

☑ *Use default BMP Outflows and Median BMP Outflow Concentrations*

DP No.	BMP No.	BMP Name	MRC?	BMP DA (acres)	Vol. Routed to BMP (CF)	Inf. & ET Credits (CF)	Capture & Buffer Credits (CF)	Outflow (CF)	Outflow Conc. (mg/L)			Pollutant Loads (lbs)		
									TSS	TP	TN	TSS	TP	TN

	TSS	TP	TN
POLLUTANT LOADS FROM STRUCTURAL BMP (TREATED) OUTFLOWS (LBS):	0.00	0.00	0.00
POLLUTANT LOADS FROM UNTREATED STORMWATER (LBS):	22.75	0.10	1.07
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	5.69	0.02	0.16
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	17.06	0.08	0.91
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	53.56	0.23	2.31

WATER QUALITY REQUIREMENT SATISFIED

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my 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. I further certify that the structure, function, and calculations contained in this spreadsheet have not been modified in comparison to the spreadsheet DEP has posted to its website or, if modifications were made, an explanation of the modifications made is attached to this spreadsheet.

Timothy Fink, E.I.T.	1/3/2023
Spreadsheet User Name	Date

General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **283 Commerce Center - Building #1**

Application Type: **PAG-02 NOI**

County: **Lancaster**

Municipality: **Mount Joy Township**

Project Type: **Commercial Building**

(●) New Project ( ) Minor / Major Amendment

Area: **102.67** acres
(In Watershed)

Total Earth Disturbance: **102.67** acres
(In Watershed)

No. of Post-Construction Discharge Points: **1**

Start DP Numbering at: **009**

Discharge Point (DP) No.	Drainage Area (DA) (acres)	Earth Disturbance in DA (acres)	Existing Impervious in DA (acres)	Proposed Impervious in DA (acres)	Receiving Waters	Ch. 93 Class	Structural BMP(s)
009	102.67	102.67	0.00	0.72	UNT to Little Chiques Creek	TSF, MF	Yes
Undetained Areas							
Totals:	**102.67**	**102.67**		**0.72**			

Volume Management

Project: 283 Commerce Center - Building #1

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **2.98** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* **11** ☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.00	N/A	98	0.041	2.75	0
Pervious as Meadow	0.00	B	58	1.448	0.27	0
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Pervious as Meadow	1.57	B	58	1.448	0.27	1,526
Pervious as Meadow	0.00	C	71	0.817	0.75	0
Pervious as Meadow	0.00	D	78	0.564	1.11	0
Forested (Good Condition)	0.82	B	55	1.636	0.19	566
Forested (Good Condition)	0.00	C	70	0.857	0.70	0
Forested (Good Condition)	0.00	D	77	0.597	1.06	0

Impervious Areas: Streets and Roads - Paved; Curbs and Storm Sewers (Excluding ROW)	0.36	N/A	98	0.041	2.75	3,612
TOTAL (ACRES):	**2.76**				**TOTAL (CF):**	**5,704**

Post-Construction Conditions: *No. Rows:* **8**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.72	N/A	98	0.041	2.75	7,207
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	B	58	1.448	0.27	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	C	71	0.817	0.75	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.00	D	78	0.564	1.11	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	1.59	B	61	1.279	0.36	2,062
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	C	74	0.703	0.90	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.00	D	80	0.500	1.24	0
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.36	N/A	98	0.041	2.75	3,612
TOTAL (ACRES):	**2.67**				**TOTAL (CF):**	**12,882**

NET CHANGE IN VOLUME TO MANAGE (CF): **7,178**

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* **1** *Start BMP Numbering at:* **4**

DP No.	BMP No.	BMP Name	MRC?	Discharge	Incremental BMP DA (acres)	Volume Routed to BMP (CF)	Infiltration / Vegetated Area (SF)	Infiltration Rate (in/hr)	Infiltration Period (hrs)	Vegeta-ted?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)

009	4	Rain Garden / Bioretention	Y	Off-Site	1.65	7,258	12,314	0.10	96	No	2.0	0	**1,108**	
												Totals:	**1,108**	

INFILTRATION & ET CREDITS (CF):	**1,108**
MANAGED RELEASE CREDIT (CF):	**6,150**
NET CHANGE IN VOLUME TO MANAGE (CF):	**7,178**
TOTAL CREDITS (CF):	**7,258**

VOLUME REQUIREMENT SATISFIED

Rate Control

Project: 283 Commerce Center - Building #1

Instructions | General | Volume | *Rate* | Quality

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**2.98**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.51**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.54**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.61**	Alternative 100-Year 24-Hour Storm Event (in):	

☑ **Report Summary of Peak Rates Only**

Attach model input and output data or other calculations to support the rates reported below.

	Peak Discharge Rates (cfs)			
	Pre-Construction	**Post-Construction**	**Net Change**	
2-Year Storm:	**4.67**	**1.05**	**-3.62**	***Rate Control Satisfied***
10-Year Storm:	**11.75**	**2.66**	**-9.09**	***Rate Control Satisfied***
50-Year Storm:	**23.51**	**16.53**	**-6.98**	***Rate Control Satisfied***
100-Year Storm:	**30.26**	**19.67**	**-10.59**	***Rate Control Satisfied***

Water Quality

Project: 283 Commerce Center - Building #1

PRINT

Instructions | General | Volume | Rate | *Quality*

Pre-Construction Pollutant Loads:

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.00	N/A	0	65.0	0.29	2.05	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	B	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	1.57	B	1,526	48.8	0.22	2.30	4.65	0.02	0.22
Pervious as Meadow	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Pervious as Meadow	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.82	B	566	45.0	0.13	1.05	1.59	0.00	0.04

Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	C	0	45.0	0.13	1.05	0.00	0.00	0.00
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	0.00	D	0	45.0	0.13	1.05	0.00	0.00	0.00
Impervious Areas: Streets and Roads - Paved; Curbs and Storm Sewers (Excluding ROW)	Urban Highway	0.36	N/A	3,612	142.0	0.32	3.00	32.03	0.07	0.68
	TOTAL (ACRES):	**2.76**					**TOTALS:**	**38.27**	**0.10**	**0.93**

Post-Construction Pollutant Loads (without BMPs):

Land Cover (from Volume Worksheet)	Land Cover for Water Quality	Area (acres)	Soil Group	Runoff Volume (cf)	Pollutant Conc. (mg/L)			Pollutant Loads (lbs)		
					TSS	TP	TN	TSS	TP	TN
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.72	N/A	7,207	65.0	0.29	2.05	29.25	0.13	0.92
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	B	0	48.8	0.22	2.30	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	C	0	48.8	0.22	2.30	0.00	0.00	0.00
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.00	D	0	48.8	0.22	2.30	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	1.59	B	2,062	78.0	0.25	1.25	10.04	0.03	0.16
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	C	0	78.0	0.25	1.25	0.00	0.00	0.00
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	0.00	D	0	78.0	0.25	1.25	0.00	0.00	0.00

Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.36	N/A	3,612	65.0	0.29	2.05	14.66	0.07	0.46
	TOTAL (ACRES):	**2.67**					**TOTALS:**	**53.96**	**0.23**	**1.55**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS):	**15.69**	**0.13**	**0.61**

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* **7**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	**0.13**	**N/A**	**98**	**0.041**	**2.75**	**1,297**
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	**0**	**B**	**58**	**1.448**	**0.27**	**0**
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	**0**	**C**	**71**	**0.817**	**0.75**	**0**
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	**0**	**D**	**78**	**0.564**	**1.11**	**0**
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**0.53**	**B**	**61**	**1.279**	**0.36**	**688**
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**0**	**C**	**74**	**0.703**	**0.90**	**0**
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**0**	**D**	**80**	**0.500**	**1.24**	**0**

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
0.52	**0.00**	**0.01**

☐ Other (attach calculations)

Structural BMP Water Quality Credits:

☑ *Use default BMP Outflows and Median BMP Outflow Concentrations*

DP No.	BMP No.	BMP Name	MRC?	BMP DA (acres)	Vol. Routed to BMP (CF)	Inf. & ET Credits (CF)	Capture & Buffer Credits (CF)	Outflow (CF)	Outflow Conc. (mg/L)			Pollutant Loads (lbs)		
									TSS	TP	TN	TSS	TP	TN
009	4	Rain Garden / Bioretention	Y	1.65	7,258	1,108		6,150	-	-	-	-	-	-

	TSS	TP	TN
POLLUTANT LOADS FROM STRUCTURAL BMP (TREATED) OUTFLOWS (LBS):	**0.00**	**0.00**	**0.00**
POLLUTANT LOADS FROM UNTREATED STORMWATER (LBS):	**8.61**	**0.03**	**0.22**
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	**0.52**	**0.00**	**0.01**
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	**8.09**	**0.03**	**0.20**
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	**38.27**	**0.10**	**0.93**

WATER QUALITY REQUIREMENT SATISFIED

CERTIFICATION

I certify under penalty of law and subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my 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. I further certify that the structure, function, and calculations contained in this spreadsheet have not been modified in comparison to the spreadsheet DEP has posted to its website or, if modifications were made, an explanation of the modifications made is attached to this spreadsheet.

Timothy Fink, E.I.T.	1/3/2023
Spreadsheet User Name	Date

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BUREAU OF CLEAN WATER

MANAGED RELEASE CONCEPT (MRC) DESIGN SUMMARY #1

Complete One Design Summary Sheet for Each BMP Designed for MRC

GENERAL INFORMATION

Applicant Name:	**PDC Northeast LPIV, LLC**	Project Name:	**283 Commerce Center - Building #1**
Applicant Address:	**6059 Allentown Boulevard, Suite 127**	Municipality:	**Mount Joy Township**
City, State, Zip:	Harrisburg, PA 17112	County:	**Lancaster**

Permit Type: ☒ NPDES PAG-02 ☐ NPDES IP ☐ ESCGP ☐ ESP

	Pre-Development	Post-Development	Change
Impervious Area (acres):	0.00	39.87	+39.87

MRC BMP INFORMATION

MRC BMP Type: **Bioretention Area** Stormwater BMP Manual Section: **6.4.5**

Will the BMP Include Vegetation? ☒ Yes ☐ No

If Yes, Identify Proposed Vegetation: **Ernst Conservation Seeds Native Detention Area Mix (ERNMX-183)**

For Non-Vegetated BMPs Will There Be Pre- or Post-Treatment? ☐ Yes (Pre-) ☐ Yes (Post-) ☐ No

If Yes, Identify Proposed Pre- or Post-Treatment: **N/A**

Name of Surface Water to Receive MRC BMP Discharges: **UNT To Little Chiques Creek**

Designated Use of Surface Water: **TSF, MF** Existing Use of Surface Water (if different): **None**

Is the Surface Water Impaired? ☒ Yes ☐ No

If Yes, Identify Cause(s): **Agriculture - Siltation**

Will the BMP have an impermeable liner? ☐ Yes ☒ No

If Yes, explain why a liner is proposed: **N/A**

BMP Media Description: **3' of Topsoil mixture, well blended loam topsoil with min. 10% sand and max 5% clay**

Are Any Deviations from MRC Design Standards Proposed? ☐ Yes ☒ No

If Yes, Identify Deviations: **N/A**

MRC BMP DESIGN VALUES AND STANDARDS

Parameter	Design Value	Design Standard
Actual Contributing Impervious Area to BMP (acres)	**39.87**	
Equivalent Contributing Impervious Area to BMP (acres)	**39.34**	
Total Drainage Area to BMP (acres)	**47.98**	
MRC BMP Release Rate (cfs)	**0.39**	*No greater than 0.01 cfs / acre of equivalent contributing impervious*
Underdrain Outflow Rate During 1.2-Inch/2-Hour Storm (cfs)	**0.38**	*<= MRC BMP Release Rate (cfs)*
Maximum Storm Event Routed to MRC BMP	**100-year**	

MRC BMP Design Summary
Revised, August 25, 2020

Parameter	Design Value	Design Standard
BMP Footprint Area (ft^2)	**76,079**	
Bottom BMP Elevation (Native Soils) (ft)	**433.00**	
2-Yr/24-Hr Storm Ponding Depth (ft)	**2.00**	*1 ft (recommended) (2 ft max)*
Maximum Ponding Depth (ft)	**2.67**	*4 ft (max)*
Overflow Bypass Elevation (ft)	**437.60**	
Media Depth (ft)	**3**	*2 ft (min) – 4 ft (max)*
Media Void Space (%)	**30**	
Internal Water Storage (IWS) Depth (ft)	**1**	*1 ft recommended*
Top of IWS Elevation (ft)	**434.00**	
Underdrain Pipe Diameter (in)	**6**	
Underdrain Orifice Diameter (in)	**2.9**	
Underdrain Outlet Elevation (ft)	**434.00**	
IWS Available for Routing (%)	**50**	*50% max*
Separation Distance (Groundwater) (ft)	**>2**	*1 ft (min) (2 ft recommended)*
Infiltration Rate (in/hr)	**0.1**	
Volume of Overflow During 1.2-Inch/2-Hour Storm (cf)	**0**	*0 (No overflow allowed)*
1-Yr/24-Hr **Pre**-Development Peak Rate (cfs)	**7.72**	
2-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**6.97**	*1-Yr/24-Hr Pre-Development Peak Rate (or per approved Act 167 Plan)*
10-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**21.05**	*10-Yr/24-Hr Pre-Development Peak Rate*
50-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**31.06**	*50-Yr/24-Hr Pre-Development Peak Rate*
100-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**45.60**	*100-Yr/24-Hr Pre-Development Peak Rate*
Total 2-Yr/24-Hr Runoff Volume Managed by BMP (cf)	**342,841**	
Ponding Time @ 2-Yr/24-Hr Storm (hrs)	**92 / 155**	*72 hrs (surface), 7 days (underground)*
Ponding Time @ 10-Yr/24-Hr Storm (hrs)	**92 /155**	*72 hrs (surface), 7 days (underground)*
Ponding Time @ 50-Yr/24-Hr Storm (hrs)	**93 / 155**	*72 hrs (surface), 7 days (underground)*
Ponding Time @ 100-Yr/24-Hr Storm (hrs)	**93 / 155**	*72 hrs (surface), 7 days (underground)*

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Licensed P.E. Name

Licensed P.E. Signature

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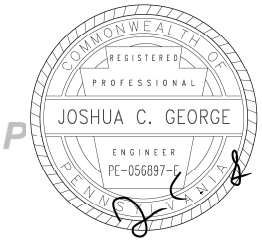

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MANAGED RELEASE CONCEPT (MRC) DESIGN SUMMARY #2

Complete One Design Summary Sheet for Each BMP Designed for MRC

GENERAL INFORMATION

Applicant Name:	**PDC Northeast LPIV, LLC**	Project Name:	**283 Commerce Center - Building #1**
Applicant Address:	**6059 Allentown Boulevard, Suite 127**	Municipality:	**Mount Joy Township**
City, State, Zip:	Harrisburg, PA 17112	County:	**Lancaster**

Permit Type: ☒ NPDES PAG-02 ☐ NPDES IP ☐ ESCGP ☐ ESP

	Pre-Development	Post-Development	Change
Impervious Area (acres):	0.32	3.18	+2.86

MRC BMP INFORMATION

MRC BMP Type: **Bioretention Area** Stormwater BMP Manual Section: **6.4.5**

Will the BMP Include Vegetation? ☒ Yes ☐ No

If Yes, Identify Proposed Vegetation: **Ernst Conservation Seeds Native Detention Area Mix (ERNMX-183)**

For Non-Vegetated BMPs Will There Be Pre- or Post-Treatment? ☐ Yes (Pre-) ☐ Yes (Post-) ☐ No

If Yes, Identify Proposed Pre- or Post-Treatment: **N/A**

Name of Surface Water to Receive MRC BMP Discharges: **UNT To Little Chiques Creek**

Designated Use of Surface Water: **TSF, MF** Existing Use of Surface Water (if different): **None**

Is the Surface Water Impaired? ☒ Yes ☐ No

If Yes, Identify Cause(s): **Agriculture - Siltation**

Will the BMP have an impermeable liner? ☐ Yes ☒ No

If Yes, explain why a liner is proposed: **N/A**

BMP Media Description: **2' of Topsoil mixture, well blended loam topsoil with min. 10% sand and max 5% clay**

Are Any Deviations from MRC Design Standards Proposed? ☐ Yes ☒ No

If Yes, Identify Deviations: **N/A**

MRC BMP DESIGN VALUES AND STANDARDS

Parameter	Design Value	Design Standard
Actual Contributing Impervious Area to BMP (acres)	**2.51**	
Equivalent Contributing Impervious Area to BMP (acres)	**2.60**	
Total Drainage Area to BMP (acres)	**3.40**	
MRC BMP Release Rate (cfs)	**0.03**	*No greater than 0.01 cfs / acre of equivalent contributing impervious*
Underdrain Outflow Rate During 1.2-Inch/2-Hour Storm (cfs)	**0.03**	*<= MRC BMP Release Rate (cfs)*
Maximum Storm Event Routed to MRC BMP	**100-year**	

MRC BMP Design Summary
Revised, August 25, 2020

Parameter	Design Value	Design Standard
BMP Footprint Area (ft^2)	**22,020**	
Bottom BMP Elevation (Native Soils) (ft)	**440.00**	
2-Yr/24-Hr Storm Ponding Depth (ft)	**0.67**	*1 ft (recommended) (2 ft max)*
Maximum Ponding Depth (ft)	**4.00**	*4 ft (max)*
Overflow Bypass Elevation (ft)	**442.00**	
Media Depth (ft)	**2**	*2 ft (min) – 4 ft (max)*
Media Void Space (%)	**30**	
Internal Water Storage (IWS) Depth (ft)	**1**	*1 ft recommended*
Top of IWS Elevation (ft)	**441.00**	
Underdrain Pipe Diameter (in)	**6**	
Underdrain Orifice Diameter (in)	**1.7**	
Underdrain Outlet Elevation (ft)	**441.00**	
IWS Available for Routing (%)	**50**	*50% max*
Separation Distance (Groundwater) (ft)	**>2**	*1 ft (min) (2 ft recommended)*
Infiltration Rate (in/hr)	**0.1**	
Volume of Overflow During 1.2-Inch/2-Hour Storm (cf)	**0**	*0 (No overflow allowed)*
1-Yr/24-Hr **Pre**-Development Peak Rate (cfs)	**20.74**	
2-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**14.93**	*1-Yr/24-Hr Pre-Development Peak Rate (or per approved Act 167 Plan)*
10-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**35.09**	*10-Yr/24-Hr Pre-Development Peak Rate*
50-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**66.52**	*50-Yr/24-Hr Pre-Development Peak Rate*
100-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**84.31**	*100-Yr/24-Hr Pre-Development Peak Rate*
Total 2-Yr/24-Hr Runoff Volume Managed by BMP (cf)	**21,434**	
Ponding Time @ 2-Yr/24-Hr Storm (hrs)	**36 / 99**	*72 hrs (surface), 7 days (underground)*
Ponding Time @ 10-Yr/24-Hr Storm (hrs)	**43 / 105**	*72 hrs (surface), 7 days (underground)*
Ponding Time @ 50-Yr/24-Hr Storm (hrs)	**51 / 113**	*72 hrs (surface), 7 days (underground)*
Ponding Time @ 100-Yr/24-Hr Storm (hrs)	**54 / 116**	*72 hrs (surface), 7 days (underground)*

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Licensed P.E. Name

Licensed P.E. Signature

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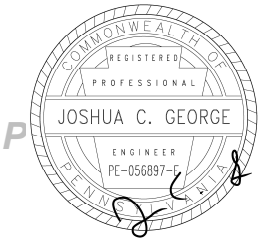

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MANAGED RELEASE CONCEPT (MRC) DESIGN SUMMARY #3

Complete One Design Summary Sheet for Each BMP Designed for MRC

GENERAL INFORMATION

Applicant Name:	**PDC Northeast LPIV, LLC**	Project Name:	**283 Commerce Center - Building #1**
Applicant Address:	**6059 Allentown Boulevard, Suite 127**	Municipality:	**Mount Joy Township**
City, State, Zip:	Harrisburg, PA 17112	County:	**Lancaster**

Permit Type: ☒ NPDES PAG-02 ☐ NPDES IP ☐ ESCGP ☐ ESP

	Pre-Development	Post-Development	Change
Impervious Area (acres):	0.00	0.72	+0.72

MRC BMP INFORMATION

MRC BMP Type: **Bioretention Area** Stormwater BMP Manual Section: **6.4.5**

Will the BMP Include Vegetation? ☒ Yes ☐ No

If Yes, Identify Proposed Vegetation: **Ernst Conservation Seeds Native Detention Area Mix (ERNMX-183)**

For Non-Vegetated BMPs Will There Be Pre- or Post-Treatment? ☐ Yes (Pre-) ☐ Yes (Post-) ☐ No

If Yes, Identify Proposed Pre- or Post-Treatment: **N/A**

Name of Surface Water to Receive MRC BMP Discharges: **UNT To Little Chiques Creek**

Designated Use of Surface Water: **TSF, MF** Existing Use of Surface Water (if different): **None**

Is the Surface Water Impaired? ☒ Yes ☐ No

If Yes, Identify Cause(s): **Agriculture - Siltation**

Will the BMP have an impermeable liner? ☐ Yes ☒ No

If Yes, explain why a liner is proposed: **N/A**

BMP Media Description: **2' of Topsoil mixture, well blended loam topsoil with min. 10% sand and max 5% clay**

Are Any Deviations from MRC Design Standards Proposed? ☐ Yes ☒ No

If Yes, Identify Deviations: **N/A**

MRC BMP DESIGN VALUES AND STANDARDS

Parameter	Design Value	Design Standard
Actual Contributing Impervious Area to BMP (acres)	**0.72**	
Equivalent Contributing Impervious Area to BMP (acres)	**1.15**	
Total Drainage Area to BMP (acres)	**6.29**	
MRC BMP Release Rate (cfs)	**0.01**	*No greater than 0.01 cfs / acre of equivalent contributing impervious*
Underdrain Outflow Rate During 1.2-Inch/2-Hour Storm (cfs)	**0.01**	*<= MRC BMP Release Rate (cfs)*
Maximum Storm Event Routed to MRC BMP	**100-year**	

MRC BMP Design Summary
Revised, August 25, 2020

Parameter	Design Value	Design Standard
BMP Footprint Area (ft^2)	**12,314**	
Bottom BMP Elevation (Native Soils) (ft)	**445.00**	
2-Yr/24-Hr Storm Ponding Depth (ft)	**0.72**	*1 ft (recommended) (2 ft max)*
Maximum Ponding Depth (ft)	**3.06**	*4 ft (max)*
Overflow Bypass Elevation (ft)	**447.00**	
Media Depth (ft)	**2**	*2 ft (min) – 4 ft (max)*
Media Void Space (%)	**30**	
Internal Water Storage (IWS) Depth (ft)	**1**	*1 ft recommended*
Top of IWS Elevation (ft)	**446.00**	
Underdrain Pipe Diameter (in)	**6**	
Underdrain Orifice Diameter (in)	**0.7**	
Underdrain Outlet Elevation (ft)	**446.00**	
IWS Available for Routing (%)	**50**	*50% max*
Separation Distance (Groundwater) (ft)	**>2**	*1 ft (min) (2 ft recommended)*
Infiltration Rate (in/hr)	**0.1**	
Volume of Overflow During 1.2-Inch/2-Hour Storm (cf)	**0**	*0 (No overflow allowed)*
1-Yr/24-Hr **Pre**-Development Peak Rate (cfs)	**2.97**	
2-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**1.04**	*1-Yr/24-Hr Pre-Development Peak Rate (or per approved Act 167 Plan)*
10-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**2.66**	*10-Yr/24-Hr Pre-Development Peak Rate*
50-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**16.55**	*50-Yr/24-Hr Pre-Development Peak Rate*
100-Yr/24-Hr **Post**-Development Peak Rate (cfs)	**19.67**	*100-Yr/24-Hr Pre-Development Peak Rate*
Total 2-Yr/24-Hr Runoff Volume Managed by BMP (cf)	**6,150**	
Ponding Time @ 2-Yr/24-Hr Storm (hrs)	**35 / 88**	*72 hrs (surface), 7 days (underground)*
Ponding Time @ 10-Yr/24-Hr Storm (hrs)	**38 / 91**	*72 hrs (surface), 7 days (underground)*
Ponding Time @ 50-Yr/24-Hr Storm (hrs)	**40 / 93**	*72 hrs (surface), 7 days (underground)*
Ponding Time @ 100-Yr/24-Hr Storm (hrs)	**40 / 93**	*72 hrs (surface), 7 days (underground)*

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