General Information

Instructions | *General* | Volume | Rate | Quality

Project Name: **River Pointe Logisitics Center**

Application Type: **Individual NPDES Application**

County: **Northampton**

Municipality: **Upper Mount Bethel Township**

Project Type: **Commercial Building**

◉ New Project ○ Minor / Major Amendment

Area: **22.25** acres
(In Watershed)

Total Earth Disturbance: **19.73** 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	11.09	10.09	0.00	0.26	Discharge to Non-Surface Waters	CWF, MF	Yes
Undetained Areas	11.16	9.64	0.00	0.66	Discharge to Non-Surface Waters	CWF, MF	
Totals:	**22.25**	**19.73**		**0.92**			

Volume Management

Project: River Pointe Logisitics Center

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2-Year / 24-Hour Storm Event (NOAA Atlas 14): **3.3** inches

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

Alternative Source:

Pre-Construction Conditions: *No. Rows:* **3**

☐ *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)
Forested (Good Condition)	5.64	C	70	0.857	0.89	18,158
Pervious as Meadow	13.66	C	71	0.817	0.94	46,552
Pervious as Meadow	0.43	D	78	0.564	1.35	2,103
TOTAL (ACRES):	**19.73**				**TOTAL (CF):**	**66,812**

Post-Construction Conditions: *No. Rows:* **4**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	18.33	C	74	0.703	1.10	73,454
Impervious Areas: Industrial	0.92	D	98	0.041	3.07	10,243
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.05	C	71	0.817	0.94	170
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.43	D	78	0.564	1.35	2,103
TOTAL (ACRES):	**19.73**				**TOTAL (CF):**	**85,970**

NET CHANGE IN VOLUME TO MANAGE (CF):	19,157

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Structural BMP Volume Credits: *No. Structural BMPs:* **1** *Start BMP Numbering at:* **12**

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	12	Capture and Reuse		Off-Site	10.09	42,286								
												Totals:		

INFILTRATION & ET CREDITS (CF):	
CAPTURE AND REUSE CREDIT (CF):	42,286
NET CHANGE IN VOLUME TO MANAGE (CF):	19,157
TOTAL CREDITS (CF):	42,286

VOLUME REQUIREMENT SATISFIED

Rate Control

Project: River Pointe Logisitics Center

Instructions | General | Volume | *Rate* | Quality

Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	**3.3**	Alternative 2-Year 24-Hour Storm Event (in):	
NOAA 10-Year 24-Hour Storm Event (in):	**4.82**	Alternative 10-Year 24-Hour Storm Event (in):	
NOAA 50-Year 24-Hour Storm Event (in):	**6.78**	Alternative 50-Year 24-Hour Storm Event (in):	
NOAA 100-Year 24-Hour Storm Event (in):	**7.82**	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:	**55.13**	**44.28**	**-10.85**	***Rate Control Satisfied***
10-Year Storm:	**114.33**	**91.15**	**-23.18**	***Rate Control Satisfied***
50-Year Storm:	**198.18**	**165.59**	**-32.59**	***Rate Control Satisfied***
100-Year Storm:	**244.20**	**206.07**	**-38.13**	***Rate Control Satisfied***

Water Quality

Project: River Pointe Logisitics Center

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
Forested (Good Condition)	Deciduous Forest/Evergreen Forest/Mixed Forest	5.64	C	18,158	45.0	0.13	1.05	51.02	0.15	1.19
Pervious as Meadow	Grassland/Herbaceous	13.66	C	46,552	48.8	0.22	2.30	141.85	0.64	6.69
Pervious as Meadow	Grassland/Herbaceous	0.43	D	2,103	48.8	0.22	2.30	6.41	0.03	0.30
	TOTAL (ACRES):	**19.73**					**TOTALS:**	**199.28**	**0.82**	**8.18**

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
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	Open Space	18.33	C	73,454	78.0	0.25	1.25	357.76	1.15	5.73
Impervious Areas: Industrial	Industrial	0.92	D	10,243	81.0	0.24	2.01	51.81	0.15	1.29

Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.05	C	170	48.8	0.22	2.30	0.52	0.00	0.02
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	Grassland/Herbaceous	0.43	D	2,103	48.8	0.22	2.30	6.41	0.03	0.30
	TOTAL (ACRES):	**19.73**					**TOTALS:**	**416.49**	**1.33**	**7.35**

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS): 217.21 | 0.52 | 0.00

☑ **Characterize Undetained Areas (for Untreated Stormwater)** *No. Rows:* **2**

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	**8.48**	**C**	**74**	**0.703**	**1.10**	**33,982**
Impervious Areas: Industrial	**0.67**	**N/A**	**98**	**0.041**	**3.07**	**7,460**

Non-Structural BMP Water Quality Credits:

☑ Pervious Undetained Area Credit

TSS	TP	TN
25.89	0.09	0.73

☐ 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	12	Capture and Reuse		10.09	42,286		42,286	0	0.00	0.00	0.00	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):	203.24	0.64	3.59
NON-STRUCTURAL BMP WATER QUALITY CREDITS (LBS):	25.89	0.09	0.73
NET POLLUTANT LOADS FROM SITE, POST-CONSTRUCTION (LBS):	177.35	0.55	2.86
POLLUTANT LOADS FROM SITE, PRE-CONSTRUCTION (LBS):	199.28	0.82	8.18

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.

Steve Walsh	4/1/2023
Spreadsheet User Name	Date