

General Information

Instructions **General** Volume Rate Quality

Project Name: Application Type:

County: Municipality:

Project Type: New Project Minor / Major Amendment

Total Project Site Area: acres Total Earth Disturbance: acres
(In Watershed) *(In Watershed)*

No. of Post-Construction Discharge Points: Start DP Numbering at:

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	4.53	2.50	0.71	1.73	Discharge to Non-Surface Waters (To Tookany Creek)	WWF, MF	Yes
Undetained Areas	1.37	0.46	0.00	0.22	Discharge to Non-Surface Waters (To Tookany Creek)	WWF, MF	
Totals:	5.90	2.96	0.71	1.95			

Volume Management

Project: 222 Church Road

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

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

Alternative Source:

No. Rows:

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)
Pervious as Meadow	0.00	B	58	1.448	0.38	0
Pervious as Meadow	2.15	C	71	0.817	0.94	7,327
Impervious as Meadow	0.04	C	71	0.817	0.94	136
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.16	N/A	98	0.041	3.07	1,781
TOTAL (ACRES): 2.35						TOTAL (CF): 9,245

No. Rows:

TOTAL (CF): 9,245

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%)	0.00	B	61	1.279	0.49	0
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	1.72	C	74	0.703	1.10	6,893
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	1.24	N/A	98	0.041	3.07	13,806
TOTAL (ACRES): 2.96						TOTAL (CF): 20,698

NET CHANGE IN VOLUME TO MANAGE (CF):

Non-Structural BMP Volume Credits:

Tree Planting Credit

Other (attach calculations):

Structural BMP Volume Credits:

No. Structural BMPs:

1

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)	Vegetated?	Media Depth (ft)	Storage Volume (CF)	Infiltration Credit (CF)	ET Credit (CF)
001	1	Rain Garden / Bioretention	-	Off-Site	2.50	18,285	3,971	0.66	43	Yes	4.0	9,273	8,452	3,923

Totals: 8,452 3,923

INFILTRATION & ET CREDITS (CF): 12,376

NET CHANGE IN VOLUME TO MANAGE (CF): 11,454

TOTAL CREDITS (CF): 12,376

VOLUME REQUIREMENT SATISFIED

Rate Control

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Precipitation Amounts:

NOAA 2-Year 24-Hour Storm Event (in):	3.3
NOAA 10-Year 24-Hour Storm Event (in):	4.91
NOAA 50-Year 24-Hour Storm Event (in):	6.9
NOAA 100-Year 24-Hour Storm Event (in):	7.9

Alternative 2-Year 24-Hour Storm Event (in):	
Alternative 10-Year 24-Hour Storm Event (in):	
Alternative 50-Year 24-Hour Storm Event (in):	
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:	7.15	4.67	-2.48
10-Year Storm:	9.28	7.28	-2.00
50-Year Storm:	11.01	9.90	-1.11
100-Year Storm:	11.66	10.87	-0.79

Rate Control Satisfied
Rate Control Satisfied
Rate Control Satisfied
Rate Control Satisfied

Water Quality

Project: 222 Church Road

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
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	2.15	C	7,327	48.8	0.22	2.30	22.33	0.10	1.05
Impervious as Meadow	Grassland/Herbaceous	0.04	C	136	48.8	0.22	2.30	0.42	0.00	0.02
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	0.16	N/A	1,781	65.0	0.29	2.05	7.23	0.03	0.23
TOTAL (ACRES): 2.35							TOTALS:	29.97	0.13	1.30

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	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	1.72	C	6,893	78.0	0.25	1.25	33.57	0.11	0.54
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	Residential	1.24	N/A	13,806	65.0	0.29	2.05	56.03	0.25	1.77
TOTAL (ACRES): 2.96							TOTALS:	89.60	0.36	2.31

POLLUTANT LOAD REDUCTION REQUIREMENTS (LBS):

59.63	0.22	1.01
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