

## General Information

Instructions

General

Volume

Rate

Quality

Project Name:	West Field	Application Type:	Individual NPDES Application
County:	Indiana	Municipality:	Black Lick Township
Project Type:	Redevelopment	<input checked="" type="radio"/> New Project <input type="radio"/> Minor / Major Amendment	
Area: (In Watershed)	169.20 acres	Total Earth Disturbance: (In Watershed)	169.20 acres
No. of Post-Construction Points of Analysis:	11	at:	001

Point of Analysis (POA) 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 SCM(s)
001	0.68	0.68	0.00	0.00	Trib 44072 of Blacklick Creek	CWF	No
002	35.45	35.45	0.36	0.00	Trib 44070 of Blacklick Creek	CWF	Yes
003	49.14	49.14	0.53	0.00	Trib 44062 of Blacklick Creek	CWF	Yes
004	5.27	5.27	0.36	0.00	Trib 44062 of Blacklick Creek	CWF	No

005	31.41	31.41	0.10	0.00	Trib 44062 to Blacklick Creek	CWF	Yes
006	2.10	2.10	0.00	0.00	Trib 44062 to Blacklick Creek	CWF	No
007	17.05	17.05	0.00	0.00	Trib 44076 of Two Lick Creek	CWF	Yes
008	15.39	15.39	0.00	0.00	Trib 44076 of Two Lick Creek	CWF	Yes
009	3.69	3.69	0.15	0.00	Trib 44076 of Two Lick Creek	CWF	No
010	4.77	4.77	0.20	0.68	Trib 44072 of Blacklick Creek	CWF	Yes
011	4.22	4.22	0.25	0.89	Trib 44072 of Blacklick Creek	CWF	Yes
Undetained Areas							
<b>Totals:</b>	<b>169.17</b>	<b>169.17</b>	<b>1.95</b>	<b>1.57</b>			

# Volume Management

Project: West Field - POA 1

Instructions General **Volume** Rate Quality

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

**Pre-Construction Conditions:** 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	3.30	D	78	0.564	0.82	9,829
Forested (Good Condition)	0.07	C	70	0.857	0.48	122
Forested (Good Condition)	0.04	D	77	0.597	0.77	112

**TOTAL (ACRES): 3.41 TOTAL (CF): 10,063**

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.07	C	71	0.817	0.52	131
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.61	D	78	0.564	0.82	1,817

**TOTAL (ACRES): 0.68 TOTAL (CF): 1,948**

**IET CHANGE IN VOLUME TO MANAGE (CF):**

**Non-Structural SCM Volume Credits:**

☐ Tree Planting Credit

☐ Other (attach calculations):

Description:

CREDIT (CF):

Structural SCM Volume Credits:      No. Structural SCMs:       Start SCM Numbering at:

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)

Totals:

INFILTRATION & ET CREDITS (CF):

NET CHANGE IN VOLUME TO MANAGE (CF): 

-8,115

TOTAL CREDITS (CF):

VOLUME REQUIREMENT SATISFIED

# Volume Management

Project: West Field - POA 2

Instructions General **Volume** Rate Quality

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

Alternative Source:

**Pre-Construction Conditions:**      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	2.90	C	71	0.817	0.52	5,435
Pervious as Meadow	17.81	D	78	0.564	0.82	53,047
Forested (Good Condition)	2.32	C	70	0.857	0.48	4,037
Forested (Good Condition)	5.83	D	77	0.597	0.77	16,335
Impervious Areas: Streets and Roads - Paved; Open Ditches (Including ROW)	0.29	N/A	93	0.151	1.83	1,923
Impervious as Meadow	0.07	N/A	78	0.564	0.82	208
TOTAL (ACRES):		29.22	TOTAL (CF):		80,985	

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	7.64	C	71	0.817	0.52	14,319
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	27.81	D	78	0.564	0.82	82,832

TOTAL (ACRES): 35.45

TOTAL (CF): 97,151

IET CHANGE IN VOLUME TO MANAGE (CF): 16,166

## Non-Structural SCM Volume Credits:

☐ Tree Planting Credit☐ Other (attach calculations):

Description:

CREDIT (CF):

## Structural SCM Volume Credits:

No. Structural SCMs:

3

Start SCM Numbering at:

1

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)
002	1	Rain Garden / Bioretention	Y	to SCM No. 2	10.98	32,483	2,325	0.00	56	Yes	3.5	8,561		
002	2	Dry Extended Detention Basin	Y	Off-Site	0.00	32,483	18,273	0.00		Yes		0		
002	3	Dry Extended Detention Basin	-	Off-Site	20.89	55,407	35,613	0.00		Yes		0		

Totals:

INFILTRATION &amp; ET CREDITS (CF):

MANAGED RELEASE CREDIT (CF):

16,242

NET CHANGE IN VOLUME TO MANAGE (CF):

16,166

TOTAL CREDITS (CF):

16,242

VOLUME REQUIREMENT SATISFIED

# Volume Management

Project: West Field - POA 3

Instructions General **Volume** Rate Quality

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

Alternative Source:

**Pre-Construction Conditions:**      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	31.38	C	71	0.817	0.52	58,811
Pervious as Meadow	9.19	D	78	0.564	0.82	27,373
Forested (Good Condition)	6.00	C	70	0.857	0.48	10,440
Forested (Good Condition)	2.70	D	77	0.597	0.77	7,565
Impervious Areas: Streets and Roads - Paved; Open Ditches (Including ROW)	0.42	D	93	0.151	1.83	2,785
Impervious as Meadow	0.11	D	78	0.564	0.82	328
TOTAL (ACRES):		49.80	TOTAL (CF):		107,301	

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	36.72	C	71	0.817	0.52	68,820
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	12.42	D	78	0.564	0.82	36,993

TOTAL (ACRES): 49.14

TOTAL (CF): 105,813

IET CHANGE IN VOLUME TO MANAGE (CF): -1,489

## Non-Structural SCM Volume Credits:

☐ Tree Planting Credit☐ Other (attach calculations):

Description:

CREDIT (CF):

## Structural SCM Volume Credits:

No. Structural SCMs:

3

Start SCM Numbering at:

3

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)
003	3	Dry Extended Detention Basin	-	Off-Site	17.25	37,045	27,291	0.00		Yes		0		
003	4	Dry Extended Detention Basin	-	Off-Site	4.68	10,593	6,656	0.00		Yes		0		
003	5	Dry Extended Detention Basin	-	Off-Site	15.98	36,399	31,616	0.00		Yes		0		

Totals:

INFILTRATION &amp; ET CREDITS (CF):

NET CHANGE IN VOLUME TO MANAGE (CF):

-1,489

TOTAL CREDITS (CF):

VOLUME REQUIREMENT SATISFIED



# Volume Management

Project: West Field - POA 4

Instructions General **Volume** Rate Quality

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

Alternative Source:

**Pre-Construction Conditions:**      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	1.50	C	71	0.817	0.52	2,811
Pervious as Meadow	7.70	D	78	0.564	0.82	22,935
Forested (Good Condition)	0.20	C	70	0.857	0.48	348
Forested (Good Condition)	0.97	D	77	0.597	0.77	2,718
Impervious Areas: Streets and Roads - Paved; Open Ditches (Including ROW)	0.29	D	93	0.151	1.83	1,923
Impervious as Meadow	0.07	D	78	0.564	0.82	208
TOTAL (ACRES):		10.73	TOTAL (CF):		30,943	

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.70	C	71	0.817	0.52	1,312
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	4.57	D	78	0.564	0.82	13,612

TOTAL (ACRES): 5.27

TOTAL (CF): 14,924

IET CHANGE IN VOLUME TO MANAGE (CF): -16,019

Non-Structural SCM Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Description:

CREDIT (CF):

Structural SCM Volume Credits:

No. Structural SCMs:

Start SCM Numbering at:

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)

Totals:

INFILTRATION & ET CREDITS (CF):

NET CHANGE IN VOLUME TO MANAGE (CF):

TOTAL CREDITS (CF):

VOLUME REQUIREMENT SATISFIED

# Volume Management

Project: West Field - POA 5

Instructions General **Volume** Rate Quality

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

Alternative Source:

**Pre-Construction Conditions:**      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	5.26	C	71	0.817	0.52	9,858
Pervious as Meadow	18.57	D	78	0.564	0.82	55,311
Forested (Good Condition)	3.21	C	70	0.857	0.48	5,585
Forested (Good Condition)	0.81	D	77	0.597	0.77	2,269
Impervious Areas: Streets and Roads - Paved; Open Ditches (Including ROW)	0.08	D	93	0.151	1.83	530
Impervious as Meadow	0.02	D	78	0.564	0.82	60
TOTAL (ACRES):		27.95	TOTAL (CF):		73,614	

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	9.91	C	71	0.817	0.52	18,573
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	21.50	D	78	0.564	0.82	64,038

TOTAL (ACRES): 31.41

TOTAL (CF): 82,611

NET CHANGE IN VOLUME TO MANAGE (CF): 8,997

## Non-Structural SCM Volume Credits:

☐ Tree Planting Credit☐ Other (attach calculations):

Description:

CREDIT (CF):

## Structural SCM Volume Credits:

No. Structural SCMs:

3

Start SCM Numbering at:

6

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)
005	6	Rain Garden / Bioretention	Y	to SCM No. 8	13.81	36,992	3,219	0.00	66	Yes	3.5	10,648		
005	7	Dry Extended Detention Basin	Y	Off-Site	0.00	36,992	14,688	0.00		Yes		0		
005	8	Dry Extended Detention Basin	-	Off-Site	12.52	33,459	18,107	0.00		Yes		0		

Totals:

INFILTRATION &amp; ET CREDITS (CF):

MANAGED RELEASE CREDIT (CF):

18,496

NET CHANGE IN VOLUME TO MANAGE (CF):

8,997

TOTAL CREDITS (CF):

18,496

VOLUME REQUIREMENT SATISFIED

# Volume Management

Project: West Field - POA 6

Instructions General **Volume** Rate Quality

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

Alternative Source:

**Pre-Construction Conditions:**      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	2.14	D	78	0.564	0.82	6,374
TOTAL (ACRES):		2.14	TOTAL (CF):			6,374

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.26	C	71	0.817	0.52	487
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	1.84	D	78	0.564	0.82	5,480
TOTAL (ACRES):		2.10	TOTAL (CF):			5,968

**IET CHANGE IN VOLUME TO MANAGE (CF):**

## Non-Structural SCM Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Description:       CREDIT (CF):

Structural SCM Volume Credits:

No. Structural SCMs:

Start SCM Numbering at:

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)

Totals:

INFILTRATION & ET CREDITS (CF):

NET CHANGE IN VOLUME TO MANAGE (CF):

-406

TOTAL CREDITS (CF):

VOLUME REQUIREMENT SATISFIED

# Volume Management

Project: West Field - POA 7

Instructions General **Volume** Rate Quality

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

**Pre-Construction Conditions:** 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	5.73	C	71	0.817	0.52	10,739
Pervious as Meadow	4.31	D	78	0.564	0.82	12,837
Forested (Good Condition)	1.02	A	30	4.667	0.00	0
Forested (Good Condition)	1.22	C	70	0.857	0.48	2,123
Forested (Good Condition)	4.95	D	77	0.597	0.77	13,869

TOTAL (ACRES): 17.23 TOTAL (CF): 39,568

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	1.02	A	30	4.667	0.00	0
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	7.82	C	71	0.817	0.52	14,656
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	8.21	D	78	0.564	0.82	24,454

TOTAL (ACRES): 17.05

TOTAL (CF): 39,110

IET CHANGE IN VOLUME TO MANAGE (CF): -459

## Non-Structural SCM Volume Credits:

☐ Tree Planting Credit☐ Other (attach calculations):

Description:

CREDIT (CF):

## Structural SCM Volume Credits:

No. Structural SCMs:

1

Start SCM Numbering at:

9

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)
007	9	Dry Extended Detention Basin	-	Off-Site	13.49	32,174	22,852	0.00		Yes	0.5	0		3,919

Totals: 3,919

INFILTRATION &amp; ET CREDITS (CF): 3,919

NET CHANGE IN VOLUME TO MANAGE (CF): -459

TOTAL CREDITS (CF): 3,919

VOLUME REQUIREMENT SATISFIED



# Volume Management

Project: West Field - POA 8

Instructions General **Volume** Rate Quality

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

Alternative Source:

**Pre-Construction Conditions:**      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	7.62	C	71	0.817	0.52	14,281
Pervious as Meadow	6.79	D	78	0.564	0.82	20,224
Forested (Good Condition)	0.01	C	70	0.857	0.48	17
Forested (Good Condition)	0.04	D	77	0.597	0.77	112
TOTAL (ACRES):		14.46			TOTAL (CF):	34,635

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	4.49	C	71	0.817	0.52	8,415
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	10.90	D	78	0.564	0.82	32,466
TOTAL (ACRES):		15.39			TOTAL (CF):	40,881

**NET CHANGE IN VOLUME TO MANAGE (CF):**

Non-Structural SCM Volume Credits:

- ☐ Tree Planting Credit
- ☐ Other (attach calculations):

Description:

CREDIT (CF):

Structural SCM Volume Credits:

No. Structural SCMs: 2

Start SCM Numbering at: 10

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)
008	10	Rain Garden / Bioretention	Y	to SCM No. 11	12.05	32,368	1,883	0.00	46	Yes	3.5	7,230		
008	11	Dry Extended Detention Basin	Y	Off-Site	0.00	32,368	12,055	0.00		Yes		0		

Totals:

INFILTRATION & ET CREDITS (CF):	
MANAGED RELEASE CREDIT (CF):	16,184
NET CHANGE IN VOLUME TO MANAGE (CF):	6,246
TOTAL CREDITS (CF):	16,184

VOLUME REQUIREMENT SATISFIED

# Volume Management

Project: West Field - POA 9

Instructions General **Volume** Rate Quality

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

Alternative Source:

**Pre-Construction Conditions:**      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	0.22	C	71	0.817	0.52	412
Pervious as Meadow	2.86	D	78	0.564	0.82	8,519
Forested (Good Condition)	0.68	D	77	0.597	0.77	1,905
Impervious Areas: Streets and Roads - Paved; Open Ditches (Including ROW)	0.12	D	93	0.151	1.83	796
Impervious as Meadow	0.03	D	78	0.564	0.82	89

**TOTAL (ACRES):**      3.91      **TOTAL (CF):**      11,721

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.61	C	71	0.817	0.52	1,143
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	3.08	D	78	0.564	0.82	9,174

**TOTAL (ACRES):**      3.69      **TOTAL (CF):**      10,317

IET CHANGE IN VOLUME TO MANAGE (CF):

-1,404

Non-Structural SCM Volume Credits:

- ☐ Tree Planting Credit
- ☐ Other (attach calculations):

Description:

CREDIT (CF):

Structural SCM Volume Credits:

No. Structural SCMs:

Start SCM Numbering at:

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)

Totals:

INFILTRATION & ET CREDITS (CF):

NET CHANGE IN VOLUME TO MANAGE (CF):

-1,404

TOTAL CREDITS (CF):

VOLUME REQUIREMENT SATISFIED

# Volume Management

Project: West Field - POA 10

Instructions General **Volume** Rate Quality

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

Alternative Source:

**Pre-Construction Conditions:**      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	0.28	C	71	0.817	0.52	525
Pervious as Meadow	3.56	D	78	0.564	0.82	10,604
Forested (Good Condition)	0.42	C	70	0.857	0.48	731
Forested (Good Condition)	1.77	D	77	0.597	0.77	4,959
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.16	D	98	0.041	2.32	1,348
Impervious as Meadow	0.04	D	78	0.564	0.82	119
TOTAL (ACRES):		6.23	TOTAL (CF):		18,285	

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

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)	0.68	D	98	0.041	2.32	5,728
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	0.52	C	71	0.817	0.52	975

Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	3.63	D	78	0.564	0.82	10,812
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TOTAL (ACRES):
4.83
TOTAL (CF):
17,514

IET CHANGE IN VOLUME TO MANAGE (CF):
-771

Non-Structural SCM Volume Credits:

- ☐ Tree Planting Credit
- ☐ Other (attach calculations):

Description:
CREDIT (CF):

Structural SCM Volume Credits:
No. Structural SCMs:
1
Start SCM Numbering at:
12

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)
010	12	Dry Extended Detention Basin	-	Off-Site	1.80	8,846	882			Yes	0.5	0		151

Totals:
151

INFILTRATION & ET CREDITS (CF):
151

NET CHANGE IN VOLUME TO MANAGE (CF):
-771

TOTAL CREDITS (CF):
151

VOLUME REQUIREMENT SATISFIED

# Volume Management

Project: West Field - POA 11

Instructions General **Volume** Rate Quality

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

Alternative Source:

**Pre-Construction Conditions:**      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	2.35	C	71	0.817	0.52	4,404
Pervious as Meadow	1.00	D	78	0.564	0.82	2,979
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.25	D	98	0.041	2.32	2,106
Forested (Good Condition)	0.05	C	70	0.857	0.48	87
TOTAL (ACRES):		3.65			TOTAL (CF):	9,576

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

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Impervious Areas: Streets and Roads - Paved; Open Ditches (Including ROW)	0.89	D	93	0.151	1.83	5,901
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	2.22	C	71	0.817	0.52	4,161
Meadow-Continuous Grass, Protected from Grazing and Generally Mowed for Hay	1.11	D	78	0.564	0.82	3,306
TOTAL (ACRES):		4.22			TOTAL (CF):	13,368

IET CHANGE IN VOLUME TO MANAGE (CF): 3,792

Non-Structural SCM Volume Credits:

☐ Tree Planting Credit

☐ Other (attach calculations):

Description: CREDIT (CF):

Structural SCM Volume Credits:

No. Structural SCMs: 2

Start SCM Numbering at: 13

POA No.	SCM No.	SCM Name	MRC?	Discharge	Incremental SCM DA (acres)	Volume Routed to SCM (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)
011	13	Rain Garden / Bioretention	Y	to SCM No. 15	2.77	10,766	675		36	Yes	3.5	3,959		
011	14	Dry Extended Detention Basin	Y	Off-Site	0.00	11,837	1,503			Yes		0		

Totals:

INFILTRATION & ET CREDITS (CF):

MANAGED RELEASE CREDIT (CF): 10,766

NET CHANGE IN VOLUME TO MANAGE (CF): 3,792

TOTAL CREDITS (CF): 10,766

VOLUME REQUIREMENT SATISFIED