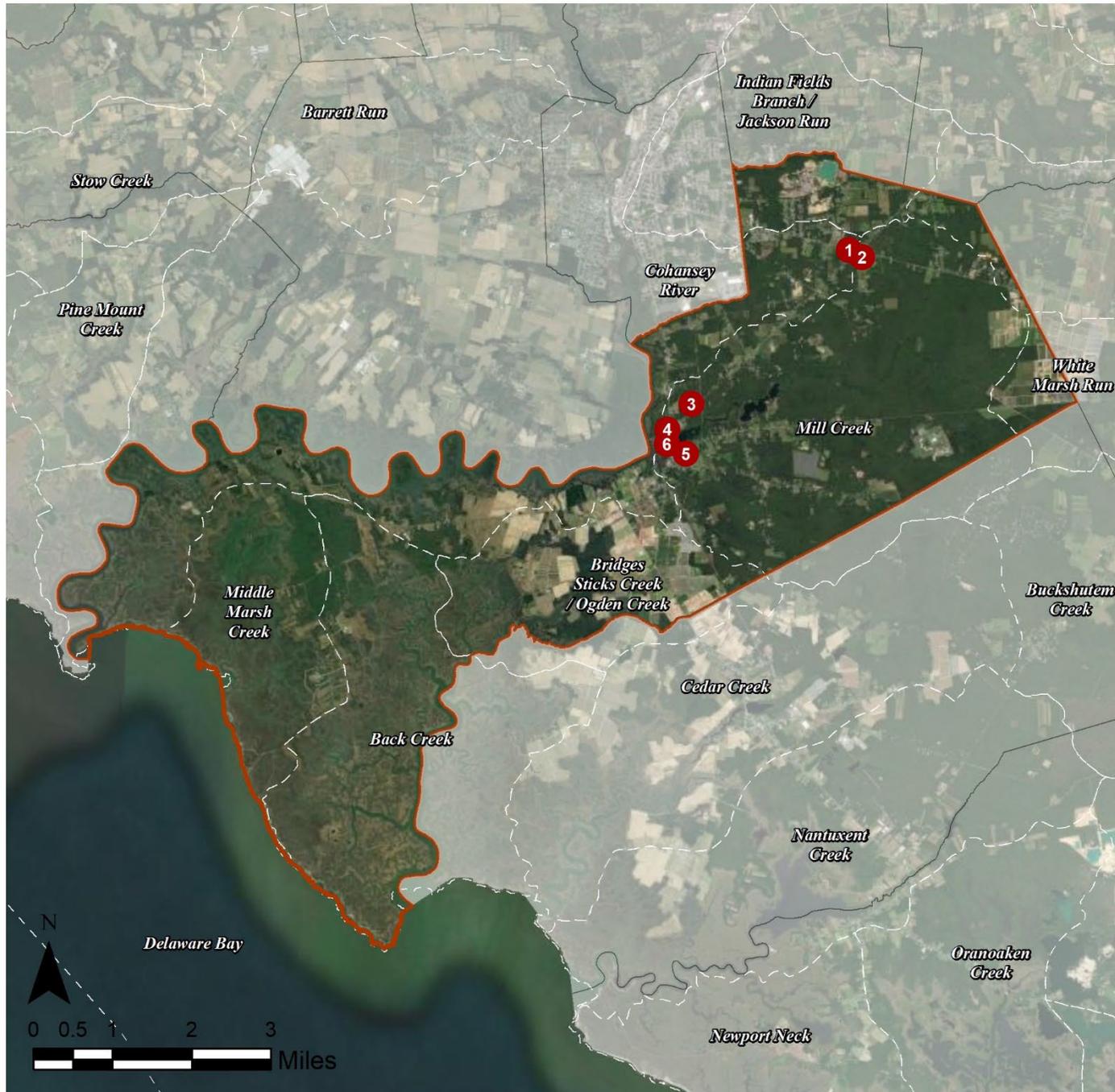


# FAIRFIELD TOWNSHIP: GREEN INFRASTRUCTURE SITES



## SITES WITHIN THE COHANSEY RIVER SUBWATERSHED

1. Young Peoples Progressive Club

## SITES WITHIN THE MILL CREEK SUBWATERSHED

2. Cornbread House
3. Fairfield Municipal Building
4. Fairton Post Office
5. Victory in Christ Ministry
6. The Woodchucker, Inc.

# YOUNG PEOPLES PROGRESSIVE CLUB



**Subwatershed:** Cohansey River

**Site Area:** 156,305 sq. ft.

**Address:** 1153 Bridgeton Millville Pike  
Bridgeton, NJ 08302

**Block and Lot:** Block 23, Lot 11

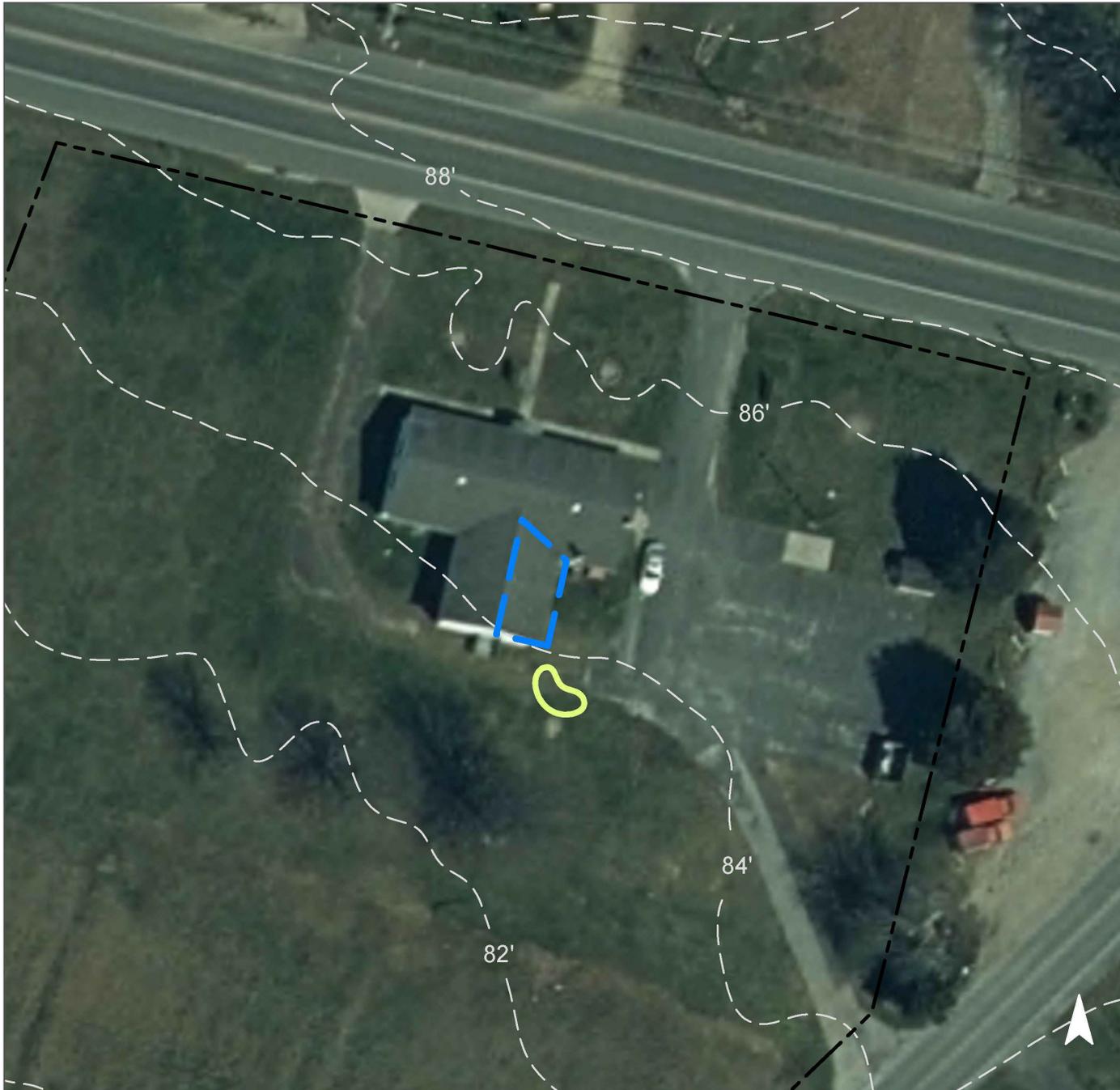


A rain garden can be installed at the southeast corner of the building to capture, treat, and infiltrate stormwater runoff from the rooftop. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
20	31,360	1.5	15.8	144.0	0.024	0.86

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.015	2	1,060	0.04	140	\$700

# GREEN INFRASTRUCTURE RECOMMENDATIONS



## Young Peoples Progressive Club

-  bioretention system
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



# CORNBREAD HOUSE



**Subwatershed:** Mill Creek

**Site Area:** 200,250 sq. ft.

**Address:** 1167 Bridgeton Millville Pike  
Bridgeton, NJ, 08302

**Block and Lot:** Block 15, Lot 1



Pervious pavement can be installed in parking spaces to capture and infiltrate runoff from the parking lot and the rooftop from a downspout at the southwest corner of the building that can be disconnected to flow onto the parking lot. A rain garden can be installed on the north side of the building to capture, treat, and infiltrate rooftop runoff. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
28	55,500	2.7	28.0	254.8	0.043	1.52

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.076	13	5,540	0.21	730	\$3,650
Pervious pavement	0.156	26	11,310	0.43	1,200	\$30,000

# GREEN INFRASTRUCTURE RECOMMENDATIONS



## Cornbread House

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



# FAIRFIELD MUNICIPAL BUILDING



**Subwatershed:** Mill Creek  
**Site Area:** 2,694,785 sq. ft.  
**Address:** 70 Fairton Gouldtown Road  
Bridgeton, NJ 08302  
**Block and Lot:** Block 28, Lots 49 & 49.01



The basketball court on the property can be converted to pervious pavement to capture and infiltrate stormwater runoff from the basketball court. A rain garden can be installed on the south side of the building near the entrance to capture, treat, and infiltrate stormwater runoff from the roof. Another rain garden can be installed in the parking lot island to mitigate runoff from the parking lot. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
5	131,600	6.3	66.5	604.2	0.103	3.61

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention systems	0.139	23	10,110	0.38	1,335	\$6,675
Pervious pavement	0.169	28	12,300	0.46	6,500	\$162,500

# GREEN INFRASTRUCTURE RECOMMENDATIONS



## Fairfield Municipal Building

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



# FAIRTON POST OFFICE



**Subwatershed:** Mill Creek  
**Site Area:** 67,945 sq. ft.  
**Address:** 56 Bridgeton Fairton Road  
Fairton, NJ 08302  
**Block and Lot:** Block 27, Lots 15 & 15.01



A strip of parking lot on the east side of the building can be replaced with pervious pavement to capture and infiltrate stormwater runoff from the parking lot. A rain garden can be installed on the south side of the building to capture, treat, and infiltrate rooftop runoff. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
23	15,485	0.7	7.8	71.1	0.012	0.42

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.010	2	740	0.03	100	\$500
Pervious pavement	0.088	15	6,420	0.24	1,200	\$30,000

# GREEN INFRASTRUCTURE RECOMMENDATIONS



## Fairton Post Office

-  bioretention system
-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



# VICTORY IN CHRIST MINISTRY



**Subwatershed:** Mill Creek  
**Site Area:** 30,550 sq. ft.  
**Address:** 93 Fairton Millville Road  
Bridgeton, NJ 08302  
**Block and Lot:** Block 33, Lot 12

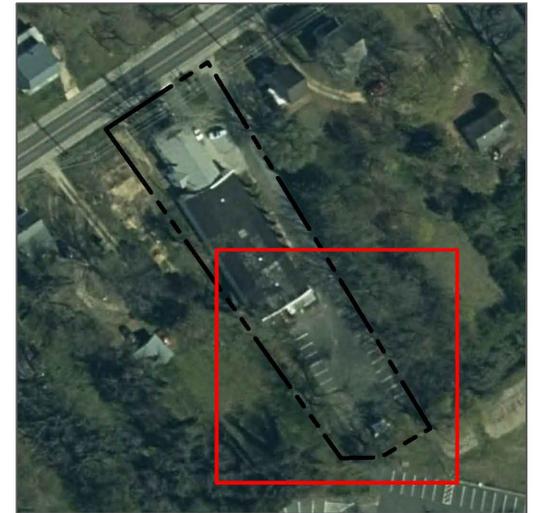


The section of parking spaces on the south side of the property can be replaced with pervious pavement to capture and infiltrate stormwater runoff from the parking lot. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
60	18,390	0.9	9.3	84.4	0.014	0.50

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Pervious pavement	0.138	23	10,030	0.38	1,000	\$25,000

# GREEN INFRASTRUCTURE RECOMMENDATIONS



**Victory in Christ Ministry**

-  pervious pavement
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



# THE WOODCHUCKER, INC.



**Subwatershed:** Mill Creek

**Site Area:** 109,140 sq. ft.

**Address:** 42 Bridgeton Fairton Road  
Fairton, NJ 08320

**Block and Lot:** Block 27, Lots 35 & 35.02

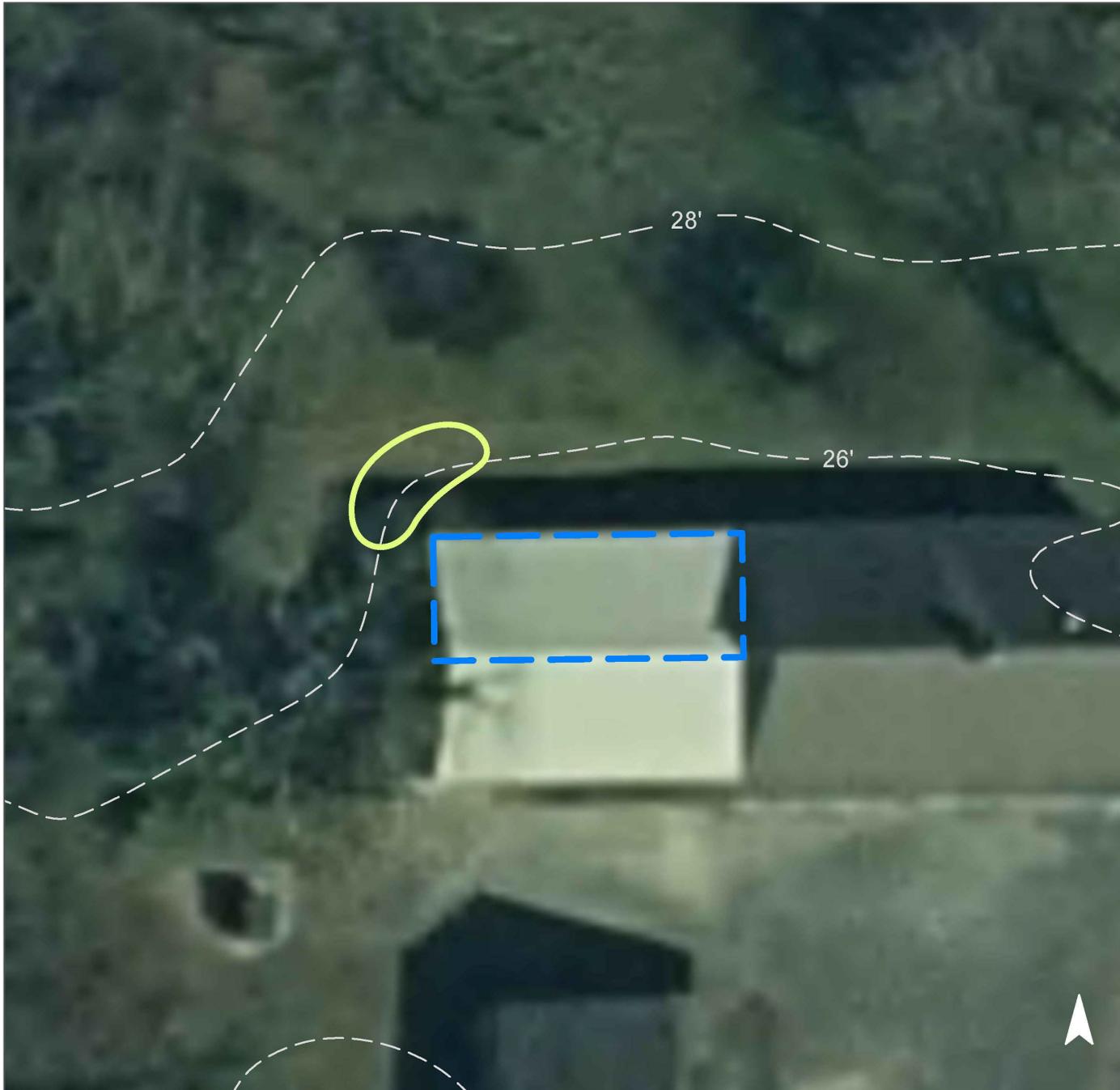


A rain garden can be installed in the turfgrass area on the north side of the building to capture, treat, and infiltrate stormwater runoff from the roof. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
24	26,150	1.3	13.2	120.1	0.020	0.72

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.017	3	1,210	0.05	160	\$800

# GREEN INFRASTRUCTURE RECOMMENDATIONS



**The Woodchucker, Inc.**

-  bioretention system
-  drainage area
-  property line
-  2015 Aerial: NJOIT, OGIS



Summary of Existing Conditions

Subwatershed/Site Name/Total Site Info/GI Practice	Area (ac)	Area (SF)	Block	Lot	I.C. %	I.C. Area (ac)	I.C. Area (SF)	Existing Annual Loads (Commercial)			Runoff Volumes from I.C.		Runoff Volumes from I.C.	
								TP (lb/yr)	TN (lb/yr)	TSS (lb/yr)	Water Quality Storm (1.25" over 2-hours) (cu.ft.)	Annual (cu.ft.)	Water Quality Storm (1.25" over 2-hours) (Mgal)	Annual (Mgal)
<b>Cohansey River Sites</b>	<b>3.59</b>	<b>156,305</b>				<b>0.72</b>	<b>31,360</b>	<b>1.5</b>	<b>15.8</b>	<b>144.0</b>	<b>3,267</b>	<b>114,987</b>	<b>0.024</b>	<b>0.86</b>
<b>1 Young Peoples Progressive Club Total Site Info</b>	<b>3.59</b>	<b>156,305</b>	<b>23</b>	<b>11</b>	<b>20.0633</b>	<b>0.72</b>	<b>31,360</b>	<b>1.5</b>	<b>15.8</b>	<b>144.0</b>	<b>3,267</b>	<b>114,987</b>	<b>0.024</b>	<b>0.86</b>
<b>Mill Creek Sites</b>	<b>71.23</b>	<b>3,102,670</b>				<b>5.67</b>	<b>247,125</b>	<b>11.9</b>	<b>124.8</b>	<b>1134.6</b>	<b>25,742</b>	<b>906,125</b>	<b>0.193</b>	<b>6.78</b>
<b>2 Cornbread House Total Site Info</b>	<b>4.60</b>	<b>200,250</b>	<b>15</b>	<b>1</b>	<b>27.7154</b>	<b>1.27</b>	<b>55,500</b>	<b>2.7</b>	<b>28.0</b>	<b>254.8</b>	<b>5,781</b>	<b>203,500</b>	<b>0.043</b>	<b>1.52</b>
<b>3 Fairfield Municipal Building Total Site Info</b>	<b>61.86</b>	<b>2,694,785</b>	<b>28</b>	<b>49, 49.01</b>	<b>4.88351</b>	<b>3.02</b>	<b>131,600</b>	<b>6.3</b>	<b>66.5</b>	<b>604.2</b>	<b>13,708</b>	<b>482,533</b>	<b>0.103</b>	<b>3.61</b>
<b>4 Fairton Post Office Total Site Info</b>	<b>1.56</b>	<b>67,945</b>	<b>27</b>	<b>15, 15.01</b>	<b>22.7905</b>	<b>0.36</b>	<b>15,485</b>	<b>0.7</b>	<b>7.8</b>	<b>71.1</b>	<b>1,613</b>	<b>56,778</b>	<b>0.012</b>	<b>0.42</b>
<b>5 Victory in Christ Ministry Total Site Info</b>	<b>0.70</b>	<b>30,550</b>	<b>33</b>	<b>12</b>	<b>60.1964</b>	<b>0.42</b>	<b>18,390</b>	<b>0.9</b>	<b>9.3</b>	<b>84.4</b>	<b>1,916</b>	<b>67,430</b>	<b>0.014</b>	<b>0.50</b>
<b>6 The Woodchucker, Inc. Total Site Info</b>	<b>2.51</b>	<b>109,140</b>	<b>27</b>	<b>35, 35.02</b>	<b>23.9601</b>	<b>0.60</b>	<b>26,150</b>	<b>1.3</b>	<b>13.2</b>	<b>120.1</b>	<b>2,724</b>	<b>95,883</b>	<b>0.020</b>	<b>0.72</b>

**Summary of Proposed Green Infrastructure Practices**

Subwatershed/Site Name/Total Site Info/GI Practice	Potential Management Area		Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Max Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cfs)	Size of BMP	Unit Cost (\$/unit)	Unit	Total Cost (\$)	I.C. Treated %
	Area (SF)	Area (ac)									
<b>Cohansey River Sites</b>	<b>560</b>	<b>0.01</b>	<b>0.015</b>	<b>2</b>	<b>1,060</b>	<b>0.04</b>				<b>\$700</b>	<b>2%</b>
<b>1 Young Peoples Progressive Club</b>											
Bioretention system	560	0.01	0.015	2	1,060	0.04	140	\$5	SF	\$700	2%
<b>Total Site Info</b>	<b>560</b>	<b>0.01</b>	<b>0.015</b>	<b>2</b>	<b>1,060</b>	<b>0.04</b>				<b>\$700</b>	<b>2%</b>
<b>Mill Creek Sites</b>	<b>30,460</b>	<b>0.70</b>	<b>0.794</b>	<b>133</b>	<b>57,660</b>	<b>2.18</b>				<b>\$259,125</b>	<b>12%</b>
<b>2 Cornbread House</b>											
Bioretention system	2,925	0.07	0.076	13	5,540	0.21	730	\$5	SF	\$3,650	5%
Pervious pavement	5,975	0.14	0.156	26	11,310	0.43	1,200	\$25	SF	\$30,000	11%
<b>Total Site Info</b>	<b>8,900</b>	<b>0.20</b>	<b>0.232</b>	<b>39</b>	<b>16,850</b>	<b>0.64</b>				<b>\$33,650</b>	<b>16%</b>
<b>3 Fairfield Municipal Building</b>											
Bioretention systems	5,340	0.12	0.139	23	10,110	0.38	1,335	\$5	SF	\$6,675	4%
Pervious pavement	6,500	0.15	0.169	28	12,300	0.46	6,500	\$25	SF	\$162,500	5%
<b>Total Site Info</b>	<b>11,840</b>	<b>0.27</b>	<b>0.308</b>	<b>52</b>	<b>22,410</b>	<b>0.84</b>				<b>\$169,175</b>	<b>9%</b>
<b>4 Fairton Post Office</b>											
Bioretention system	390	0.01	0.010	2	740	0.03	100	\$5	SF	\$500	3%
Pervious pavement	3,390	0.08	0.088	15	6,420	0.24	1,200	\$25	SF	\$30,000	22%
<b>Total Site Info</b>	<b>3,780</b>	<b>0.09</b>	<b>0.098</b>	<b>16</b>	<b>7,160</b>	<b>0.27</b>				<b>\$30,500</b>	<b>24%</b>
<b>5 Victory in Christ Ministry</b>											
Pervious pavement	5,300	0.12	0.138	23	10,030	0.38	1,000	\$25	SF	\$25,000	29%
<b>Total Site Info</b>	<b>5,300</b>	<b>0.12</b>	<b>0.138</b>	<b>23</b>	<b>10,030</b>	<b>0.38</b>				<b>\$25,000</b>	<b>29%</b>
<b>6 The Woodchucker, Inc.</b>											
Bioretention system	640	0.01	0.017	3	1,210	0.05	160	\$5	SF	\$800	2%
<b>Total Site Info</b>	<b>640</b>	<b>0.01</b>	<b>0.017</b>	<b>3</b>	<b>1,210</b>	<b>0.05</b>				<b>\$800</b>	<b>2%</b>