Bedminster Township

Introduction

Located in Somerset County in New Jersey, Bedminster Township covers about 26.4 square miles. With a population of 8,272 (2020 United States Census), Bedminster Township consists of 21.7% of urban land uses by area. Of that urban land use, approximately 39.9% is comprised of rural residential properties (NJDEP Open Data). In addition to residential development, urban land use also includes land used for commercial, industrial, recreational, and transportation purposes. Natural lands (forests, wetlands, and water) make up approximately 44.5% of Bedminster Township.

Bedminster Township contains portions of nine subwatersheds (Table 1). There are approximately 106.4 miles of rivers and streams within the municipality; these include Axle Brook and its tributaries, Chambers Brook and its tributaries, Herzog Brook and its tributaries, Hoopstick Brook and its tributaries, Lamington River and its tributaries, Middle Brook and its tributaries, Mine Brook, Muddy Run and its tributaries, North Branch Raritan River and its tributaries, Peapack Brook and its tributaries, Quail Brook, and several uncoded tributaries. Bedminster Township is within the New Jersey Department of Environmental Protection (NJDEP) Watershed Management Area (WMA) 8 (North and South Branch Raritan).

Table 1: Subwatersheds of Bedminster Township

Subwatershed	HUC14
Pottersville tributary (Lamington River)	02030105050050
Lamington River (Halls Bridge Road-Herzog Brook)	02030105050070
Lamington River (Herzog Brook-Pottersville gage)	02030105050130
Raritan River North Branch (Peapack Brook to McVickers Brook)	02030105060040
Peapack Brook (below Gladstone Brook)	02030105060060
Raritan River North Branch (including Mine Brook to Peapack Brook)	02030105060070
Middle Brook (North Branch Raritan River)	02030105060080
Raritan River North Branch (Lamington River to Mine Brook)	02030105060090

Raritan River North Branch (Route 28 to Lamington River)	02030105070010

The purpose of this report is to provide a comprehensive understanding of key, defining features within the subwatersheds throughout Bedminster Township. This involves gathering, organizing, and presenting information about existing conditions and infrastructure within each subwatershed. It aims to serve as a tool for informed decision-making, planning, and implementation of sustainable watershed management strategies aimed to protect and enhance the health of the watershed, its associated ecosystems, and the surrounding communities.

A geographic information system (GIS) was used to visualize data pertaining to the existing stormwater infrastructure, land cover, watershed delineation, and water quality classification and impairments within separate layers. Datasets from the New Jersey Department of Environmental Protection's (NJDEP's) GIS database was used to populate the watershed inventory map, from which the relevant data were isolated. Datasets representing Bedminster Township's existing stormwater infrastructure were provided by the township and were manipulated, if necessary, for the specific purposes of this report.

Analysis by Municipality

An analysis was completed by municipality. Figure 1 shows Bedminster Township in relation to the study area. Figure 2 shows the portions of the nine HUC14s in Bedminster Township and highlights the HUC14s that are contained within the study area. Figure 3 illustrates the land use in Bedminster Township. A detailed land use analysis and nonpoint source loading analysis was completed for each HUC14 in Bedminster Township and is presented in Table 2. Figure 4 shows the impervious cover in Bedminster Township based upon NJDEP's 2015 impervious cover layer. An impervious cover analysis was completed for each HUC14 in Bedminster Township and is presented in Table 3.

For the area of the municipality in the study area, a stormwater facilities analysis was completed (see Figure 5). Two sources were used to identify stormwater facilities. The first data source was the New Jersey Hydrologic Modeling Database (SCS, 2024) that was prepared by the Soil Conservation Districts (SCD) and Rutgers University. The second data source was the NJDEP 2020 land use/land cover GIS Layer. Land use data uses a land use code (1499) to identify stormwater basins. Each stormwater basin was inspected (see Table 4). The detention basins in Table 4 (identified as type "D") could benefit from naturalization (i.e., conversion from a detention basin to a bioretention basin). Detention basins that are already naturalized are identified as type "N". The retention basins in Table 4 (identified as type "R") could benefit from the addition of vegetative shoreline buffers. Retention basins that already have a vegetative shoreline buffer are listed as type "RB". No retention basins with vegetative shoreline buffers were identified in Bedminster Township within the study area.

The Q-Farms in Bedminster Township have been identified (see Figure 6). Table 5 presents the data available for each Q-Farm parcel. Q-Farms are the parcels that have been qualified for farmland tax assessment. The Q-Farms in the study area of Bedminster Township have been identified (see Figure 7 and Table 6). It is important to note that the land use on a Q-Farm is often not all agriculture. Figure 8 illustrates the land use on the Q-Farms, which is summarized in Table 7. There are 5,668.6 acres of agricultural land use in Bedminster Township, of which, 5,212.0 acres lie within the study area for this Watershed Restoration and Protection Plan. There are 90 Q-Farms and a portion of one Q-Farm in the study area portion of Bedminster Township, totaling 3,840.3 acres. Within the 90 Q-Farms and portion of one Q-Farm, there are approximately 1,004.3 acres of agricultural land use. Aerial photography (see Figure 9) was used to identify areas where riparian buffers may be able to be enhanced to further protect the waterways from agricultural impacts. Based upon the aerial photograph and site visits, recommendations for the agricultural lands in the study area in Bedminster Township are presented in Table 8.

The impervious cover analysis was used to calculate targets for areas of rooftops to be treated with rain gardens and length of roadways to be managed with bioswales. Eight HUC14s are included in the study area (02030105050050, 02030105050070, 02030105050130, 02030105060040, 02030105060060, 02030105060070, 02030105060080, 02030105060090). Within these eight HUC14s, there are 192.6 acres of buildings and 408.4 acres of roadway. The Watershed Restoration and Protection Plan recommends managing stormwater runoff from ¼ of 25% of the building rooftops. For the study area within Bedminster Township, approximately 12.0 acres of rooftop runoff would be managed with 2.41 acres of rain gardens. The plan also calls for the management of 10% of the roadways with bioswales. For the study area within Bedminster Township, approximately 40.8 acres of roadway would be managed, or 11.2 miles of roadway.

Finally, the parcel data was used to identify parcels that are classified as Property Class 15. Property Class 15 parcels are tax-exempt, and include six subcategories:

15A – Public School Property

15B- Other School Property

15C- Public Property

15D- Church and Charitable Property

15E- Cemeteries and Graveyards

15F- Other Exempt

The Property Class 15 parcels for Bedminster Township are shown in Figure 10 and presented in Table 9. When the municipality develops their Watershed Improvement Plan to satisfy their Municipal Separate Storm Sewer System (MS4) permit, these are the first sites that are assessed for opportunities to install watershed improvement projects. This assessment was completed for

the Property Class 15 parcels in the Watershed Restoration and Protection Plan study area (see Figure 11). Available information for each parcel in the study area is presented in Table 10. Class 15E parcels were excluded from the assessment. Nine of these properties offer opportunities to be retrofitted with green infrastructure to help reduce pollutant loads. These properties are identified in Table 10 and represent watershed improvement projects that can be included in the municipality's Watershed Improvement Plan. Figure 12 shows parcels within the entire municipality that offer opportunities to be retrofitted with green infrastructure. These sites are included in the Impervious Cover Reduction Action Plan that was completed by the RCE Water Resources Program for the municipality.

Water Quality Classification

The New Jersey Department of Environmental Protection (NJDEP) Surface Water Quality Standards (SWQS) are regulations that govern the water quality goals and pollution limitations for surface waters in New Jersey. Surface waters are classified based on their designated uses, such as drinking water supply, aquatic life habitat, recreation, or shellfish harvesting. The SQWS are used to protect those uses and guide permitting, monitoring, and water quality restoration efforts.

Under the SWQS, freshwaters are classified as Fresh Water 1 (FW1), Fresh Water 2 (FW2), or Pinelands (PL). FW1 waters are nondegradation waters with unique ecological significance, in which man-made wastewater discharges are not permitted. FW2 waters are all other freshwaters except for Pinelands waters. FW2 waters are further classified based on their ability to support trout. Trout Production waters (TP) are designated for use by trout for spawning or nursery purposes during their first summer. Trout Maintenance waters (TM) are designated for the support of trout throughout the year. Nontrout waters (NT) are generally unsuitable for trout due to their physical, chemical, or biological characteristics. Pinelands waters – which may be either fresh or saline waters – are surface waters within the Pinelands Protection and Preservation areas.

Saline waters that are not PL are classified under the SWQS as either Saline Estuarine (SE) or Saline Coastal (SC). SE waters are further classified based on their ability to support recreation, shellfish harvesting, and warm water fish species. SE1 waters have the highest protection within the SE category, and must support the maintenance, migration, and propagation of fish and aquatic life, as well as shellfish harvesting. SE2 waters must support the maintenance, migration, and propagation of fish and aquatic life but do not need to support shellfish harvesting. SE3 waters must support the migration of fish but do not need to support permanent aquatic biota populations or shellfish harvesting. Some coastal waters have dual classifications where the waters change from freshwater to saltwater as they drain into the estuary or ocean.

Finally, there are three antidegradation classifications assigned to all New Jersey surface waters. Outstanding National Resource Waters (ONRW) is the most protective classification and applies to all F1 and PL waters. No degradation is permitted in ONRW waters. Category One waters (C1) are protected from any measurable change to existing water quality because of their exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resources. Category Two waters (C2) permit some

measurable degradation in water quality, but the changes must be limited and justified. C2 is the default classification for all surface waters that are not categorized as F1, PL, or C1.

There are six classifications that apply to the streams in Bedminster Township. Figure 13 depicts the water quality classifications of surface waters throughout Bedminster Township and Table 11 summarizes the total miles and percentage of each surface water quality classification in the municipality.

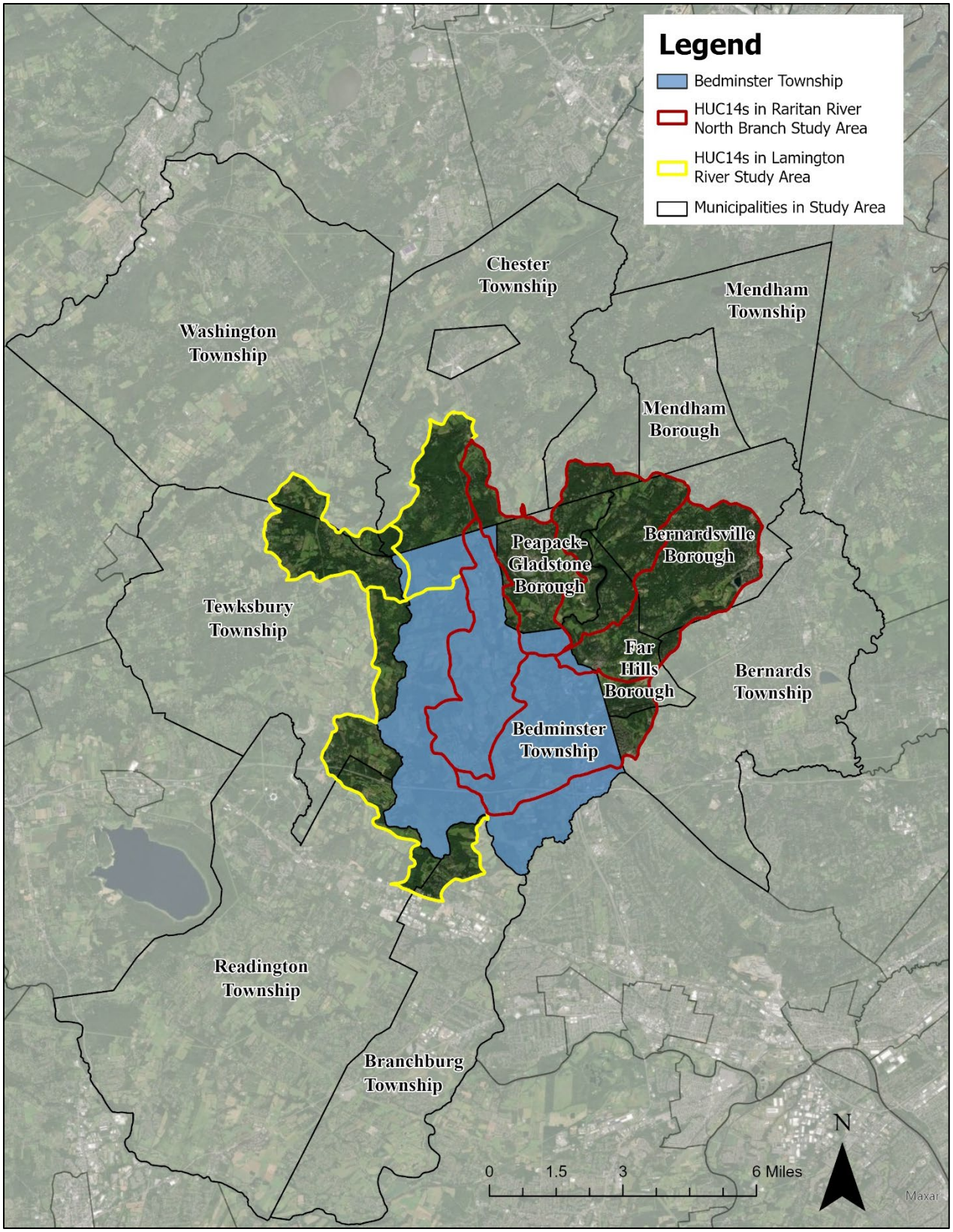


Figure 1: Municipalities in the Study Area

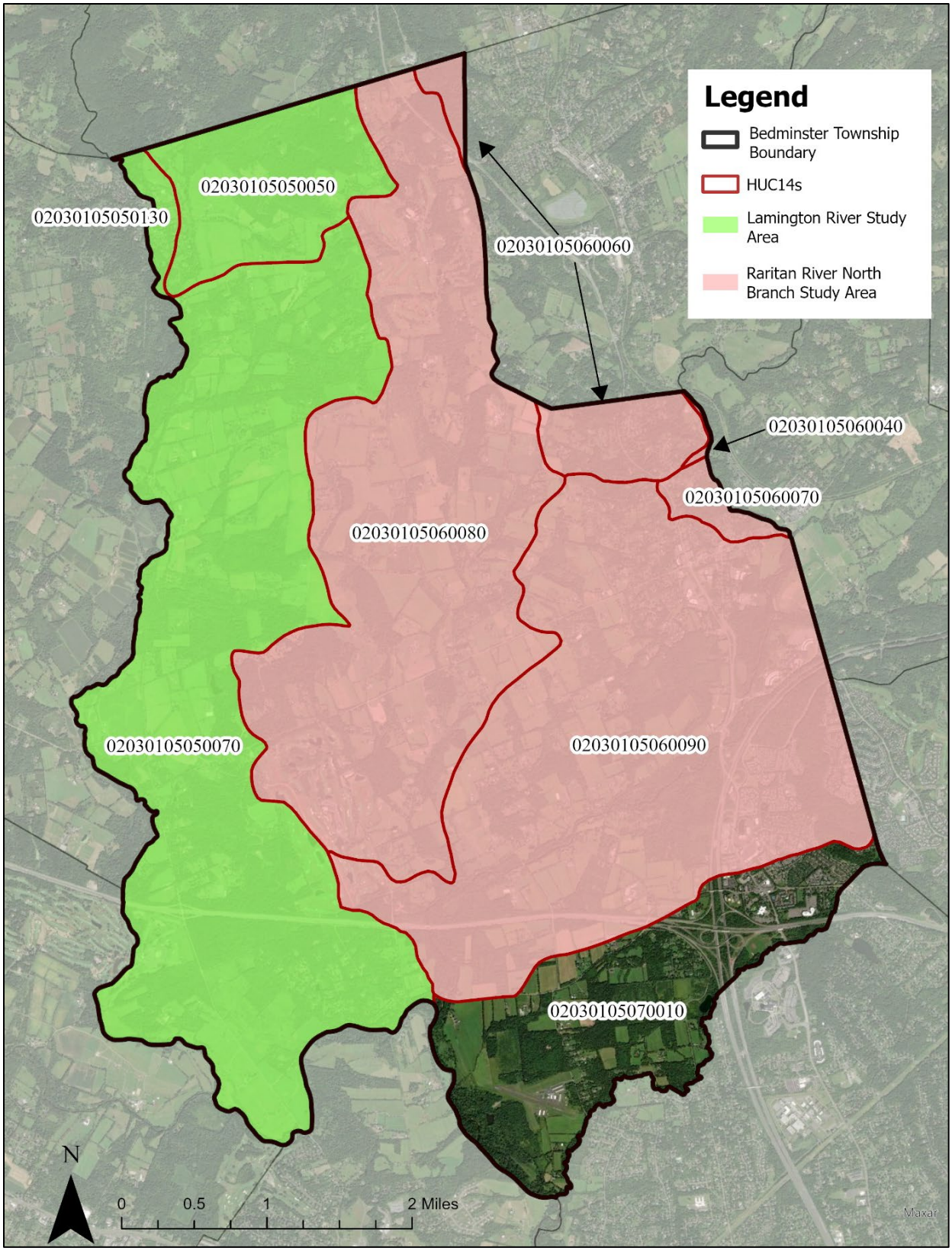


Figure 2: Portions of nine HUC14s are in Bedminster Township

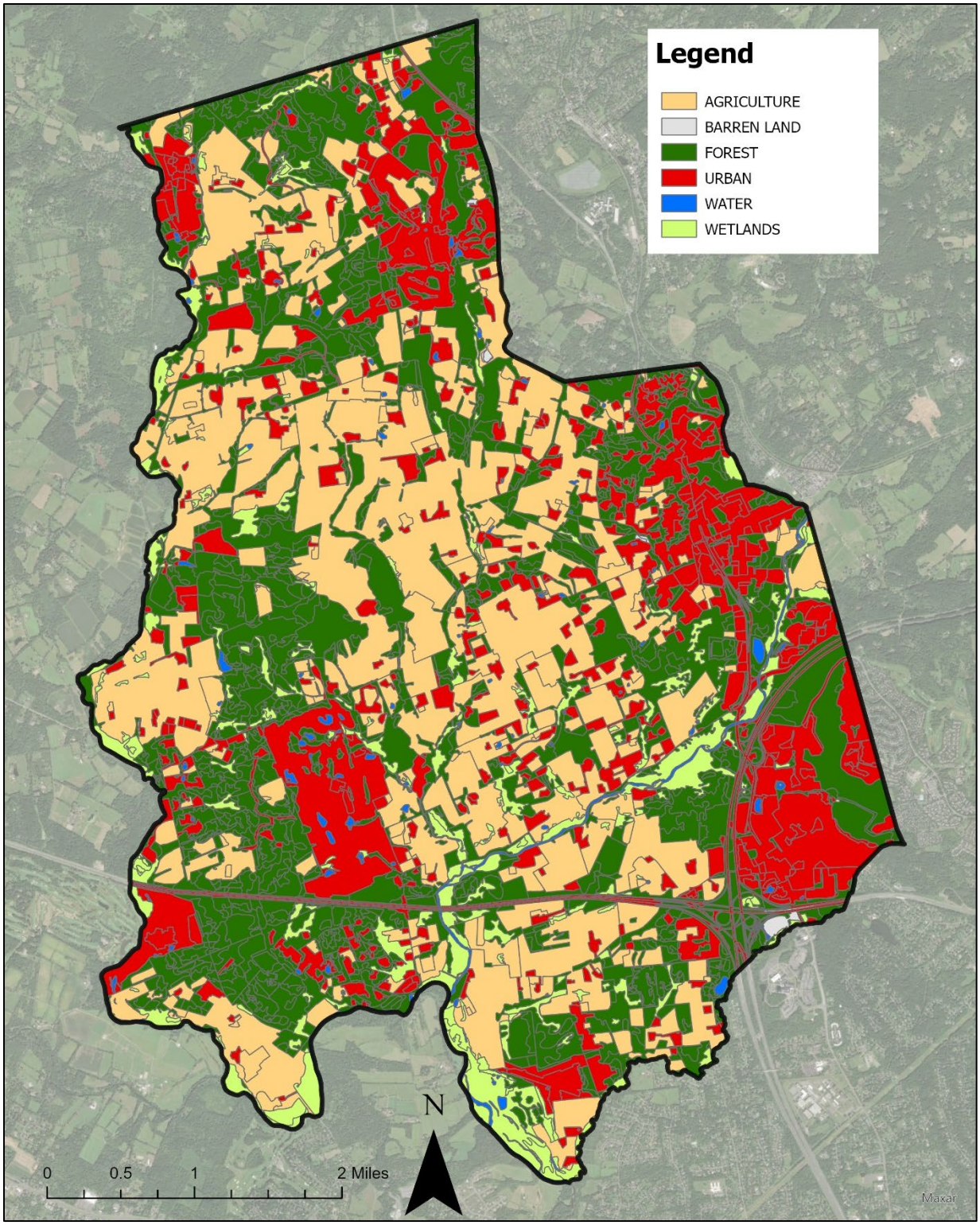


Figure 3: Land Use in Bedminster Township

Table 2: Land Use Analysis and Nonpoint Source Loading Analysis by HUC14 for Bedminster Township

Land Use	Area (acres)	TP Load (lbs/yr)	TN Load (lbs/yr)	TSS Load (lbs/yr)
02030105050050				
Agriculture	315.8	410.5	3,158.1	94,741.8
Barren Land	0.0	0.0	0.0	0.0
Forest	426.8	42.7	1,280.3	17,070.8
Urban	120.4	168.6	1,806.1	16,856.9
Water	4.8	0.5	14.5	192.7
Wetlands	32.2	3.2	96.7	1,289.4
TOTAL =	**900.0**	**625.5**	**6,355.7**	**130,151.6**
02030105050070				
Agriculture	1,667.1	2,167.2	16,671.1	500,133.4
Barren Land	0.0	0.0	0.0	0.0
Forest	2,101.8	210.2	6,305.5	84,072.8
Urban	665.7	932.0	9,986.2	93,204.4
Water	70.6	7.1	211.8	2,824.5
Wetlands	312.4	31.2	937.2	12,495.5
TOTAL =	**4,817.6**	**3,347.7**	**34,111.8**	**692,730.6**
02030105050130				
Agriculture	8.2	10.7	82.3	2,470.2
Barren Land	0.0	0.0	0.0	0.0
Forest	25.7	2.6	77.2	1,029.9
Urban	67.9	95.1	1,018.6	9,506.8
Water	4.2	0.4	12.6	167.7
Wetlands	10.7	1.1	32.2	429.5
TOTAL =	**116.7**	**109.9**	**1,222.9**	**13,604.1**
02030105060040				
Agriculture	0.0	0.0	0.0	0.0
Barren Land	0.0	0.0	0.0	0.0
Forest	5.2	0.5	15.5	207.3
Urban	6.0	8.4	89.6	836.1
Water	1.7	0.2	5.1	68.6
Wetlands	0.0	0.0	0.0	0.0
TOTAL =	**12.9**	**9.1**	**110.2**	**1,112.0**
02030105060060				
Agriculture	68.6	89.2	685.8	20,573.7
Barren Land	0.9	0.4	4.5	53.4
Forest	246.6	24.7	739.9	9,865.9
Urban	118.5	165.9	1,778.0	16,594.6
Water	3.7	0.4	11.1	147.9
Wetlands	3.1	0.3	9.2	123.2
TOTAL =	**441.4**	**280.9**	**3,228.5**	**47,358.7**

02030105060070				
Agriculture	0.0	0.0	0.0	0.0
Barren Land	0.0	0.0	0.0	0.0
Forest	49.3	4.9	147.8	1,970.7
Urban	74.0	103.7	1,110.7	10,366.3
Water	3.3	0.3	10.0	133.0
Wetlands	8.9	0.9	26.6	354.3
TOTAL =	**135.5**	**109.8**	**1,295.1**	**12,824.3**
02030105060080				
Agriculture	1,781.4	2,315.8	17,814.0	534,420.0
Barren Land	5.1	2.5	25.3	303.1
Forest	1,281.2	128.1	3,843.7	51,249.7
Urban	899.9	1,259.9	13,499.0	125,990.3
Water	31.2	3.1	93.5	1,247.3
Wetlands	95.4	9.5	286.2	3,816.3
TOTAL =	**4,094.2**	**3,718.9**	**35,561.7**	**717,026.7**
02030105060090				
Agriculture	1,370.9	1,782.2	13,709.3	411,278.6
Barren Land	1.9	1.0	9.7	116.0
Forest	1,500.3	150.0	4,500.9	60,011.6
Urban	1,264.9	1,770.9	18,973.6	177,087.3
Water	67.3	6.7	201.9	2,692.4
Wetlands	346.6	34.7	1,039.7	13,863.2
TOTAL =	**4,551.9**	**3,745.5**	**38,435.1**	**665,049.1**
02030105070010				
Agriculture	456.6	593.6	4,565.9	136,978.4
Barren Land	15.9	7.9	79.3	951.3
Forest	599.7	60.0	1,799.2	23,989.8
Urban	452.7	633.7	6,790.0	63,373.7
Water	37.2	3.7	111.7	1,488.8
Wetlands	242.9	24.3	728.7	9,715.4
TOTAL =	**1,805.0**	**1,323.2**	**14,074.8**	**236,497.4**
All HUCs				
Agriculture	5,668.6	7,369.2	56,686.5	1,700,596.1
Barren Land	23.8	11.8	118.8	1,423.8
Forest	6,236.6	623.7	18,710.0	249,468.5
Urban	3,670.0	5,138.2	55,051.8	513,816.4
Water	224.0	22.4	672.2	8,962.9
Wetlands	1,052.2	105.2	3,156.5	42,086.8
TOTAL =	**16,875.2**	**13,270.5**	**134,395.8**	**2,516,354.5**

Impervious Cover Analysis

NJDEP's Open Data impervious surface GIS data layer depicts surfaces throughout Bedminster Township that have been covered with materials that are highly resistant to infiltration by water, rendering them impervious. These surfaces include rooftops, roadways, sidewalks, and other paved areas. These impervious cover values were used to estimate the impervious coverage for Bedminster Township. Based upon the NJDEP impervious surface data, Bedminster Township has impervious cover totaling 8.2%. Table 3 shows impervious cover for each HUC14. The extent of the impervious cover in Bedminster Township is shown in Figure 4.

The literature suggests a link between impervious cover and stream ecosystem impairment (Schueler, 1994; Arnold and Gibbons, 1996; May et al., 1997). Impervious cover may be linked to the quality of lakes, reservoirs, estuaries, and aquifers (Caraco et al., 1998), and the amount of impervious cover in a watershed can be used to project the current and future quality of streams. Based on scientific literature, Caraco et al. (1998) classified urbanizing streams into the following three categories: sensitive streams, impacted streams, and non-supporting streams.

Schueler (1994, 2004) developed an impervious cover model that classified "sensitive streams" as typically having a watershed impervious surface cover from 0-10%. "Impacted streams" have a watershed impervious cover ranging from 11-25% and typically show clear signs of degradation from urbanization. "Non-supporting streams" have a watershed impervious cover of greater than 25%; at this high level of impervious cover, streams are simply conduits for stormwater flow and no longer support a diverse stream community.

Schueler et al. (2009) reformulated the impervious cover model based upon new research that had been conducted. This analysis determined that stream degradation was first detected at 2 to 15% impervious cover. The updated impervious cover model recognizes the wide variability of stream degradation at impervious cover below 10%. The updated model also moves away from having a fixed line between stream quality classifications. For example, 5 to 10% impervious cover is included for the transition from sensitive to impacted, 20 to 25% impervious cover for the transition between impacted and non-supporting, and 60 to 70% impervious cover for the transition from non-supporting to urban drainage.

Based upon this information, Bedminster Township's impervious cover percentage would suggest that its waterways are primarily sensitive and most likely preventing degradation of the state's surface water quality standards.

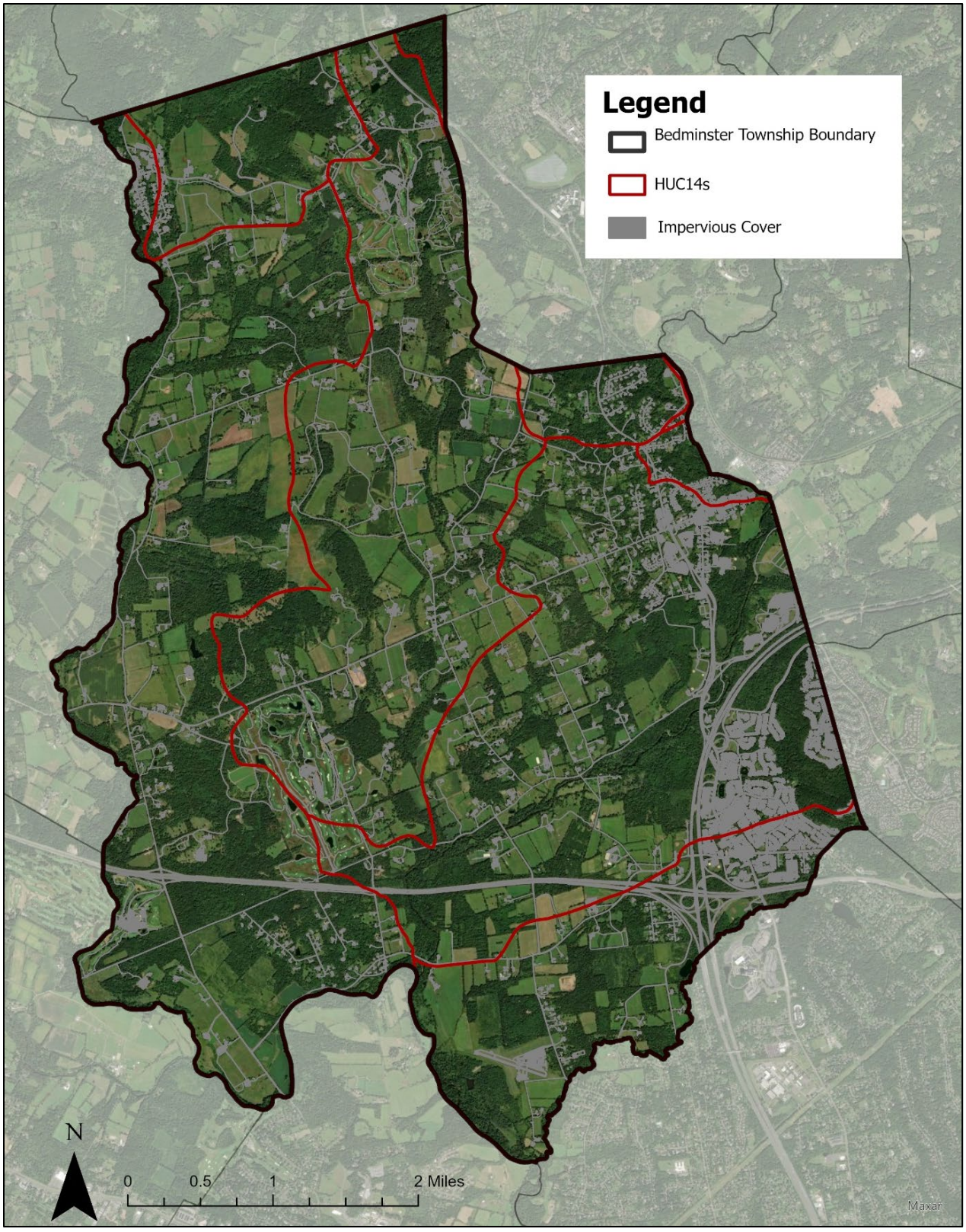


Figure 4: Impervious Cover in Bedminster Township

Table 3: Impervious Cover Analysis by HUC14 for Bedminster Township

Class	Area (acres)	HUC Impervious Cover (%)
02030105050050		
Building	5.98	
Other	23.81	
Road	13.70	
TOTAL =	**43.5**	**4.8%**
02030105050070		
Building	21.88	
Other	109.25	
Road	88.75	
TOTAL =	**219.9**	**4.6%**
02030105050130		
Building	3.56	
Other	11.67	
Road	5.63	
TOTAL =	**20.9**	**17.9%**
02030105060040		
Building	0.35	
Other	0.54	
Road	1.14	
TOTAL =	**2.0**	**15.7%**
02030105060060		
Building	6.64	
Other	16.75	
Road	12.05	
TOTAL =	**35.4**	**8.0%**
02030105060070		
Building	5.48	
Other	12.08	
Road	8.28	
TOTAL =	**25.8**	**19.1%**
02030105060080		
Building	26.42	
Other	138.41	
Road	51.14	
TOTAL =	**216.0**	**5.3%**
02030105060090		
Building	122.30	
Other	223.44	
Road	227.68	
TOTAL =	**573.4**	**12.6%**
02030105070010		

Building	42.32	
Other	90.14	
Road	106.69	
TOTAL =	**239.2**	**13.2%**
All HUCs		
Building	234.93	
Other	626.09	
Road	515.06	
TOTAL =	**1,376.1**	**8.2%**

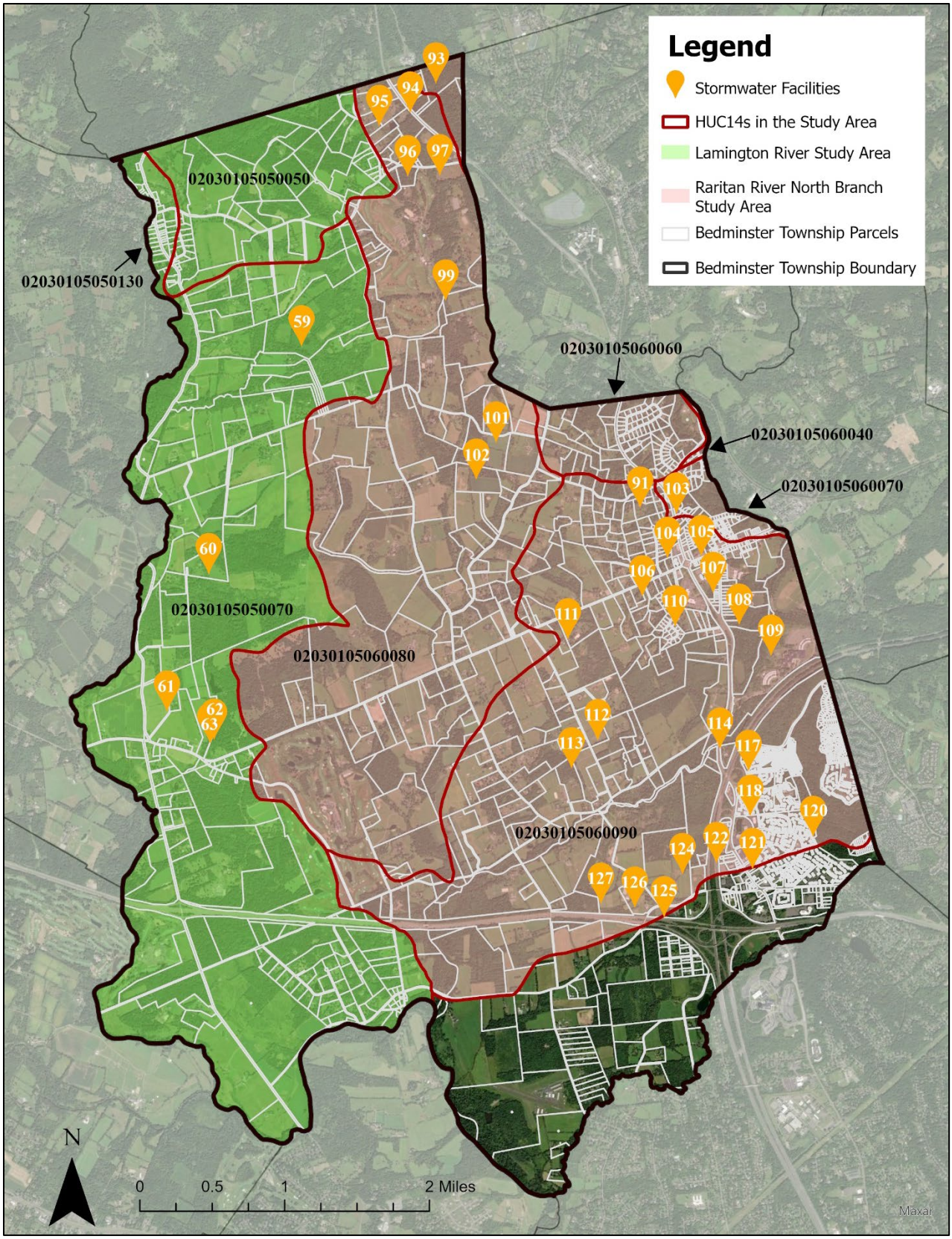


Figure 5: Stormwater Facilities in the Study Area of Bedminster Township

Table 4: Location of Stormwater Facilities in the Study Area of Bedminster Township

Lamington River Study Area		
ID	**Address**	**Type**
59	2121 Larger Cross Road	N
60	620 Black River Road	N
61	100 Black River Road	N
62	555 Lamington Road	N
63	555 Lamington Road	R
Raritan River North Branch Study Area		
ID	**Address**	**Type**
91	1691 US Highway 206	D
93	14 Old Farm Lane	D
94	3546 US Highway 206	D
95	3545 Route 206	D
96	1150 Pottersville Rd	N
97	Pottersville Rd	N
99	61 Fowler Rd	R
101	7 Columbia Tpke	N
102	420 Spook Hollow Rd	N
103	1641 US Highway 206	D
104	1590 US Highway 206	D
105	18 Steeple Chase Ct	N
106	2345 Lamington Rd	D
107	223 Somerville Rd	D
108	1 Miller Lane	D
109	900 Rt 206	D
110	98 Clucas Brook Rd	D
111	1888 Lamington Rd	N
112	320 Cedar Ridge Rd	D
113	307 Cedar Ridge Rd	D
114	US Highway 202 206	N
117	96 Birchwood Rd	D
118	50 Wescott Rd	D
120	99 Brightwood Ln	N
121	17 Mountain Ct	D
122	20 Pluckemin Way	D
124	359 US Highway 206	D
125	I-78 West	N
126	155A Klines Mill Rd	I
127	155 Klines Mill Rd	D

"D" = Detention, "R" = Retention, "I" = Infiltration, "N" = Naturalized

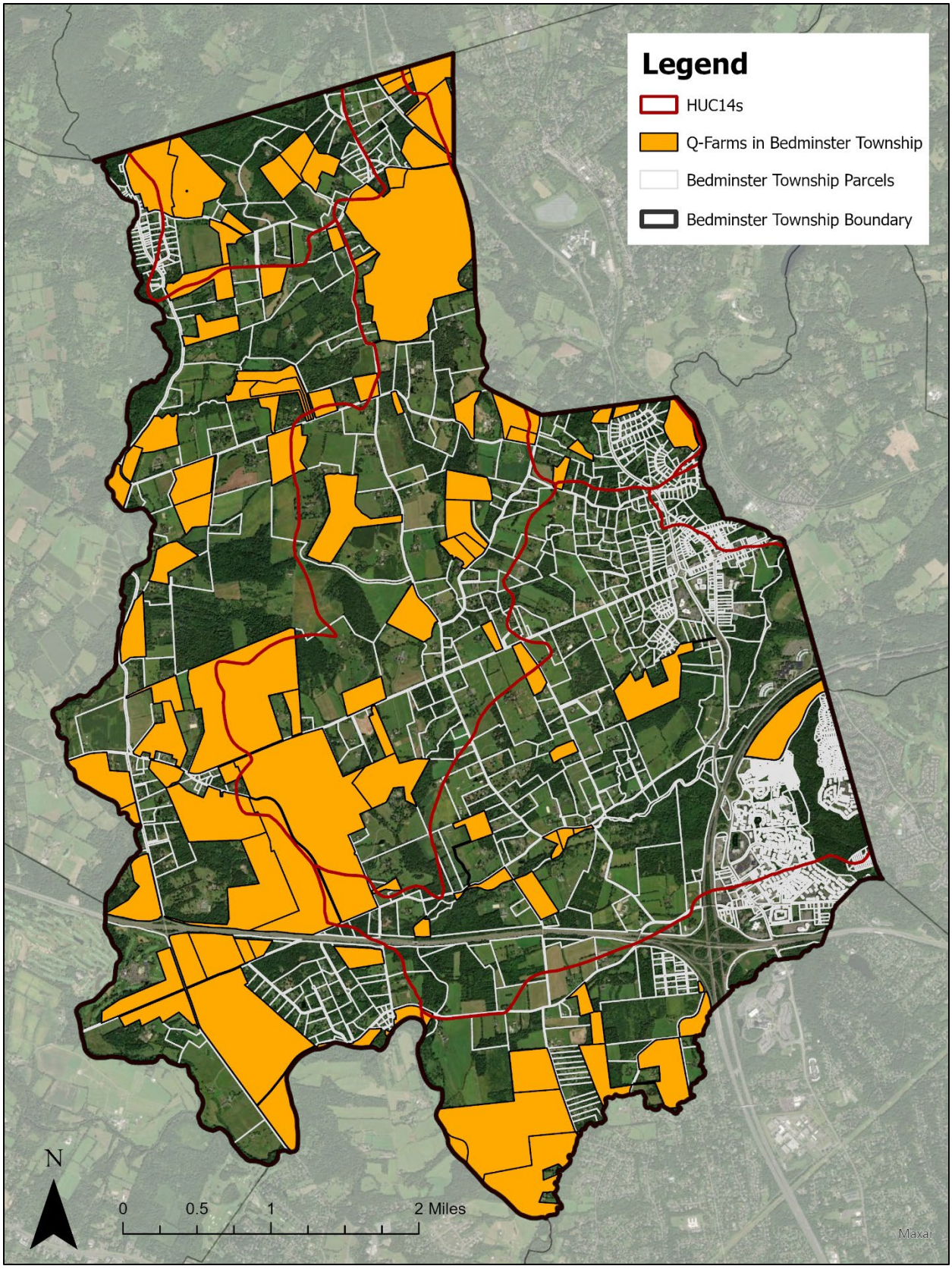


Figure 6: Q-Farm Parcels in Bedminster Township

Table 5: Q-Farm Parcels in Bedminster Township

Block	Lot	Q-Code	Prop Class	Location
2	1	QFARM	3B	N Side Pottersville Road
2	5	QFARM	3B	Pottersville Road
2	5.03	QFARM	3B	Pottersville Road
2	8.03	QFARM	3B	Windsor Lane
2	8.04	QFARM	3B	Windsor Lane
2	8.05	QFARM	3B	Windsor Lane
5	8	QFARM	3B	Pottersville Road
6	1.03	QFARM	3B	3584 E Side Rt 206
*6	1.04	QFARM	3B	3630 E Side Sh 206
6	2	QFARM	3B	3476 E Side Sh 206
6	3	QFARM	3B	3350 E Side Sh 206
7	15	QFARM	3B	Black River Road
8	15	QFARM	3B	Pottersville Road
8	16	QFARM	3B	1800 Black River Road
8	17.08	QFARM	3B	Pottersville Road
8	18	QFARM	3B	Larger Cross Road
8	23.01	QFARM	3B	Long Lane
8	23.03	QFARM	3B	805 Long Lane
8	24.03	QFARM	15C	Black River Road
8	24.09	QFARM	3B	615 Long Lane
8	24.11	QFARM	3B	505 Long Lane
8	24.12	QFARM	3B	Black River Road
8	24.13	QFARM	3B	Black River Road
8	24.15	QFARM	3B	605 Long Lane
8	24.16	QFARM	3B	625 Long Lane
9	1	QFARM	3B	Pottersville Road
9	1.04	QFARM	3B	960 Pottersville Road
9	4	QFARM	3B	Larger Cross Road
9	8	QFARM	3B	Spook Hollow Road
9	10	QFARM	3B	Spook Hollow Road
9	10.01	QFARM	3B	Spook Hollow Road
10	1	QFARM	3B	Black River Road
12	1.06	QFARM	3B	655 Lamington Road
12	1.08	QFARM	3B	Long Lane
12	1.1	QFARM	3B	200 Black River Road
12	1.12	QFARM	3B	Black River Road
12	1.14	QFARM	3B	600 Black River Road
12	1.16	QFARM	3B	Long Lane
12	1.17	QFARM	3B	Long Lane
12	3.06	QFARM	3B	Larger Cross Road
12	3.08	QFARM	3B	Long Lane

12	11.01	QFARM	3B	875 Lamington Road
12	13.01	QFARM	3B	Larger Cross Road
12	13.02	QFARM	3B	Lamington Road
13	2	QFARM	3B	1500 Larger Cross Road
13	9	QFARM	3B	Holland Road
13	9.01	QFARM	3B	Holland Road
13	12.01	QFARM	3B	Holland Road
13	12.02	QFARM	3B	Holland Road
14	5	QFARM	3B	Route 206
14	6.01	QFARM	3B	2121 Route 206
14	8	QFARM	3B	Holland Road
14	11	QFARM		Old Dutch Rd W & White Oak Ln
15	25	QFARM	3B	Route 206
*19	2	QFARM	15F	151 Peapack Road
20	2	QFARM	15F	100 Peapack Road
21	11.03	QFARM	3B	1635 Lamington Road
37	1.01	QFARM	3B	Rattlesnake Bridge Road
37	2	QFARM	3B	Rattlesnake Bridge Road
37	4	QFARM	3B	Rattlesnake Bridge Road
37.01	2	QFARM	15C	Rattlesnake Bridge Road
38	4	QFARM	3B	Lamington Road
38	8	QFARM	3B	Cowperthwaite Road
38	8.01	QFARM	3B	1000 Rattlesnake Bridge
38	13	QFARM	3B	Cowperthwaite Road
38.01	1	QFARM	15C	Rattlesnake Brdge Road
38.01	2	QFARM	15C	Rattlesnake Brdge Road
38.01	3.02	QFARM	15C	River Road
38.01	3.03	QFARM	15C	River Road
39	7	QFARM	3B	Lamington Road
39	10	QFARM	3B	Lamington Road
39	12	QFARM	3B	Elizabeth Lane
39	16	QFARM	3B	Lamington Road
39	26.01	QFARM	3B	3 Elizabeth Lane
39	29.01	QFARM	3B	River Road
40	4	QFARM	3B	Cedar Ridge Road
40	8.02	QFARM	3B	325 Cedar Ridge Road
41	26	QFARM	15C	Thosmor Road
43.01	1	QFARM	15C	Schley Mountain Road
44	1	QFARM	15C	River Road
45	1	QFARM	15F	Rattlesnake Bridge Road
45.05	12	QFARM	3B	Cowperthwaite Road
46	1	QFARM	15F	100 Rattlesnake Bridge Rd
46	3	QFARM	3B	Burnt Mills Road
48	3	QFARM	3B	River Road & Bunn Road

49	3	QFARM	3B	Burnt Mills Road
50	3	QFARM	3B	River Road
51	2	QFARM	3B	So Side River Road
51	2.1	QFARM	3B	River Road
51	3	QFARM	3B	So Side River Road
52	1.01	QFARM	3B	Bunn Road
60	1	QFARM	3B	Airport Road
61	5	QFARM	3B	Airport Road
61	6	QFARM	3B	Airport Road
61	7	QFARM	15C	Airport Road
62	3	QFARM	3B	Burnt Mills Road
62	9	QFARM	3B	Airport Road
62	13	QFARM	3B	Meadow Road
62	27	QFARM	15C	Airport Road
63	1.01	QFARM	3B	Country Club Road
69	4	QFARM	3B	Country Club Road
71.02	1	QFARM	3B	Country Club Road

*Only a portion of the Q-Farm is within the Bedminster Township boundary

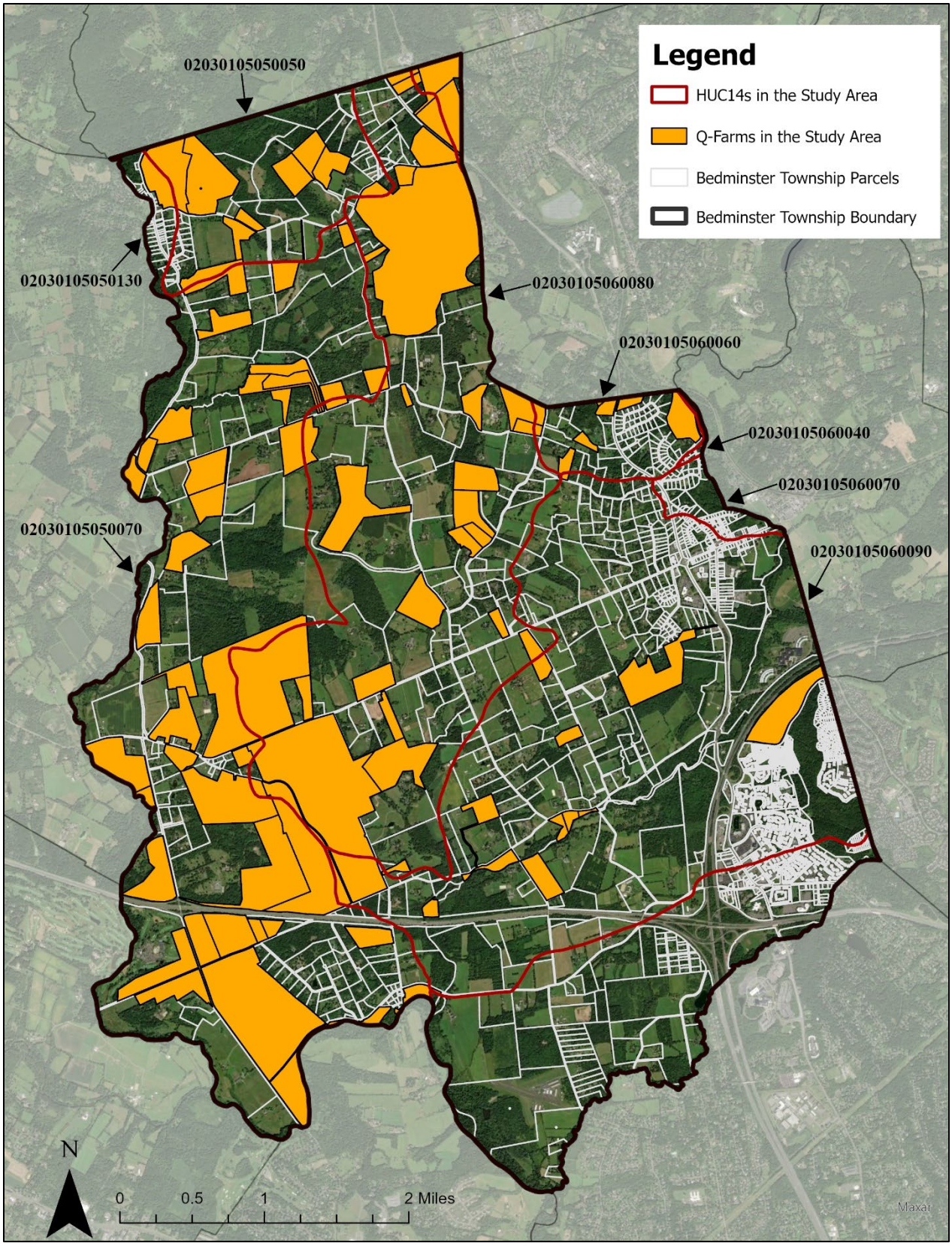


Figure 7: Q-Farm Parcels in the Study Area of Bedminster Township

Table 6: Q-Farm Parcels in the Study Area of Bedminster Township

Block	Lot	Q-Code	Prop Class	Location
2	1	QFARM	3B	N Side Pottersville Road
2	5	QFARM	3B	Pottersville Road
2	5.03	QFARM	3B	Pottersville Road
2	8.03	QFARM	3B	Windsor Lane
2	8.04	QFARM	3B	Windsor Lane
2	8.05	QFARM	3B	Windsor Lane
5	8	QFARM	3B	Pottersville Road
6	1.03	QFARM	3B	3584 E Side Rt 206
6	1.04	QFARM	3B	3630 E Side Sh 206
6	2	QFARM	3B	3476 E Side Sh 206
6	3	QFARM	3B	3350 E Side Sh 206
7	15	QFARM	3B	Black River Road
8	15	QFARM	3B	Pottersville Road
8	16	QFARM	3B	1800 Black River Road
8	17.08	QFARM	3B	Pottersville Road
8	18	QFARM	3B	Larger Cross Road
8	23.01	QFARM	3B	Long Lane
8	23.03	QFARM	3B	805 Long Lane
8	24.03	QFARM	15C	Black River Road
8	24.09	QFARM	3B	615 Long Lane
8	24.11	QFARM	3B	505 Long Lane
8	24.12	QFARM	3B	Black River Road
8	24.13	QFARM	3B	Black River Road
8	24.15	QFARM	3B	605 Long Lane
8	24.16	QFARM	3B	625 Long Lane
9	1	QFARM	3B	Pottersville Road
9	1.04	QFARM	3B	960 Pottersville Road
9	4	QFARM	3B	Larger Cross Road
9	8	QFARM	3B	Spook Hollow Road
9	10	QFARM	3B	Spook Hollow Road
9	10.01	QFARM	3B	Spook Hollow Road
10	1	QFARM	3B	Black River Road
12	1.06	QFARM	3B	655 Lamington Road
12	1.08	QFARM	3B	Long Lane
12	1.1	QFARM	3B	200 Black River Road
12	1.12	QFARM	3B	Black River Road
12	1.14	QFARM	3B	600 Black River Road
12	1.16	QFARM	3B	Long Lane
12	1.17	QFARM	3B	Long Lane
12	3.06	QFARM	3B	Larger Cross Road
12	3.08	QFARM	3B	Long Lane

12	11.01	QFARM	3B	875 Lamington Road
12	13.01	QFARM	3B	Larger Cross Road
12	13.02	QFARM	3B	Lamington Road
13	2	QFARM	3B	1500 Larger Cross Road
13	9	QFARM	3B	Holland Road
13	9.01	QFARM	3B	Holland Road
13	12.01	QFARM	3B	Holland Road
13	12.02	QFARM	3B	Holland Road
14	5	QFARM	3B	Route 206
14	6.01	QFARM	3B	2121 Route 206
14	8	QFARM	3B	Holland Road
14	11	QFARM		Old Dutch Rd W & White Oak Ln
15	25	QFARM	3B	Route 206
19	2	QFARM	15F	151 Peapack Road
20	2	QFARM	15F	100 Peapack Road
21	11.03	QFARM	3B	1635 Lamington Road
37	1.01	QFARM	3B	Rattlesnake Bridge Road
37	2	QFARM	3B	Rattlesnake Bridge Road
37	4	QFARM	3B	Rattlesnake Bridge Road
37.01	2	QFARM	15C	Rattlesnake Bridge Road
38	4	QFARM	3B	Lamington Road
38	8	QFARM	3B	Cowperthwaite Road
38	8.01	QFARM	3B	1000 Rattlesnake Bridge
38	13	QFARM	3B	Cowperthwaite Road
38.01	1	QFARM	15C	Rattlesnake Brdge Road
38.01	2	QFARM	15C	Rattlesnake Brdge Road
38.01	3.02	QFARM	15C	River Road
38.01	3.03	QFARM	15C	River Road
39	7	QFARM	3B	Lamington Road
39	10	QFARM	3B	Lamington Road
39	12	QFARM	3B	Elizabeth Lane
39	16	QFARM	3B	Lamington Road
39	26.01	QFARM	3B	3 Elizabeth Lane
39	29.01	QFARM	3B	River Road
40	4	QFARM	3B	Cedar Ridge Road
40	8.02	QFARM	3B	325 Cedar Ridge Road
41	26	QFARM	15C	Thosmor Road
43.01	1	QFARM	15C	Schley Mountain Road
44	1	QFARM	15C	River Road
45	1	QFARM	15F	Rattlesnake Bridge Road
45.05	12	QFARM	3B	Cowperthwaite Road
46	1	QFARM	15F	100 Rattlesnake Bridge Rd
46	3	QFARM	3B	Burnt Mills Road
48	3	QFARM	3B	River Road & Bunn Road

*49	3	QFARM	3B	Burnt Mills Road
50	3	QFARM	3B	River Road
51	2	QFARM	3B	SO Side River Road
51	2.1	QFARM	3B	River Road
51	3	QFARM	3B	SO Side River Road
52	1.01	QFARM	3B	Bunn Road

*Only a portion of the Q-Farm is within the study area

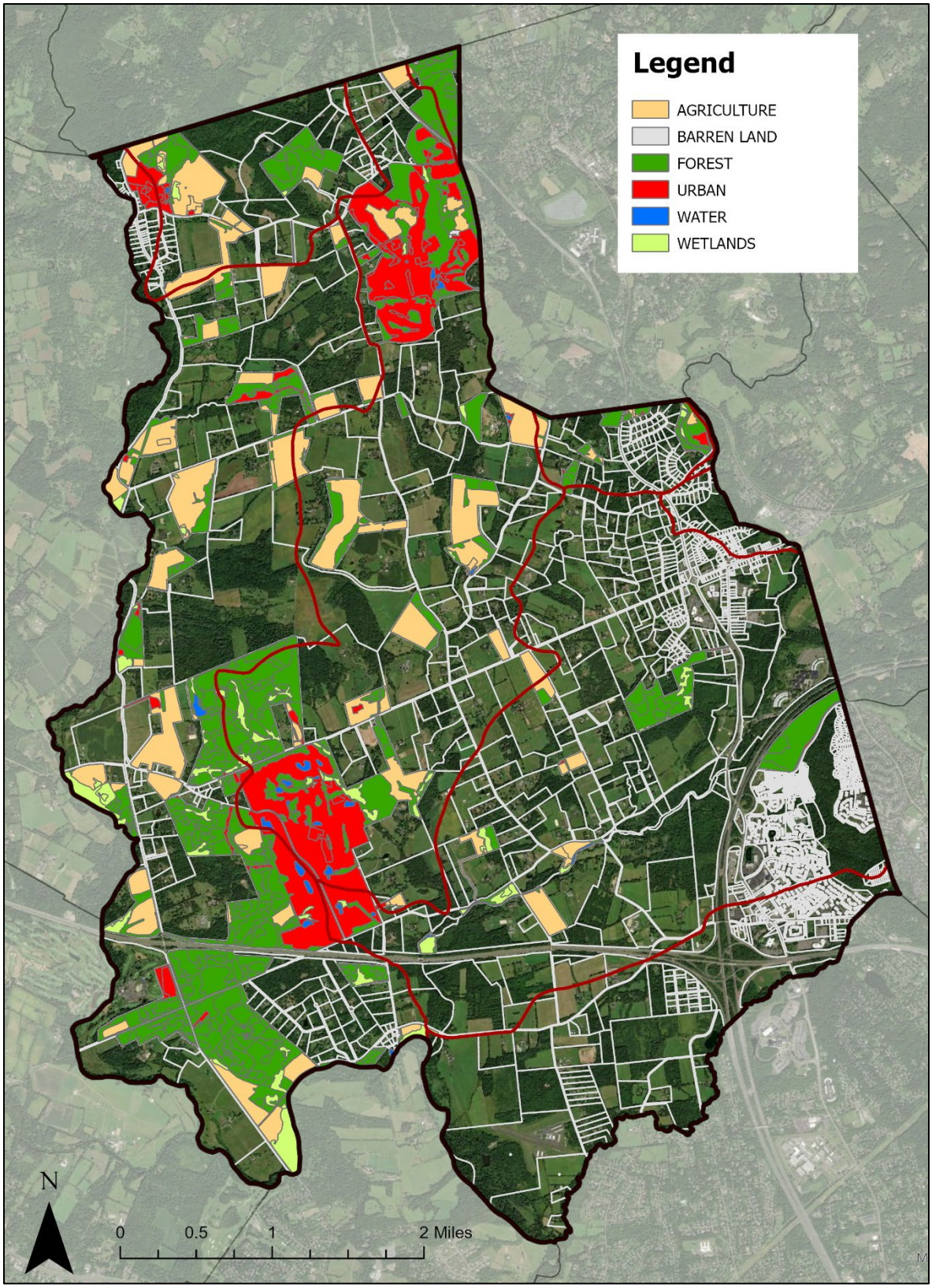


Figure 8: Land Use on Q-Farm Parcels in the Study Area of Bedminster Township

Table 7: Land Use on Q-Farms in the Study Area of Bedminster Township

Land Use	Area (acres)
Agriculture	1,004.3
Barren Land	2.6
Forest	1,812.1
Urban	774.1
Water	53.5
Wetlands	193.7
Total:	**3,840.3**

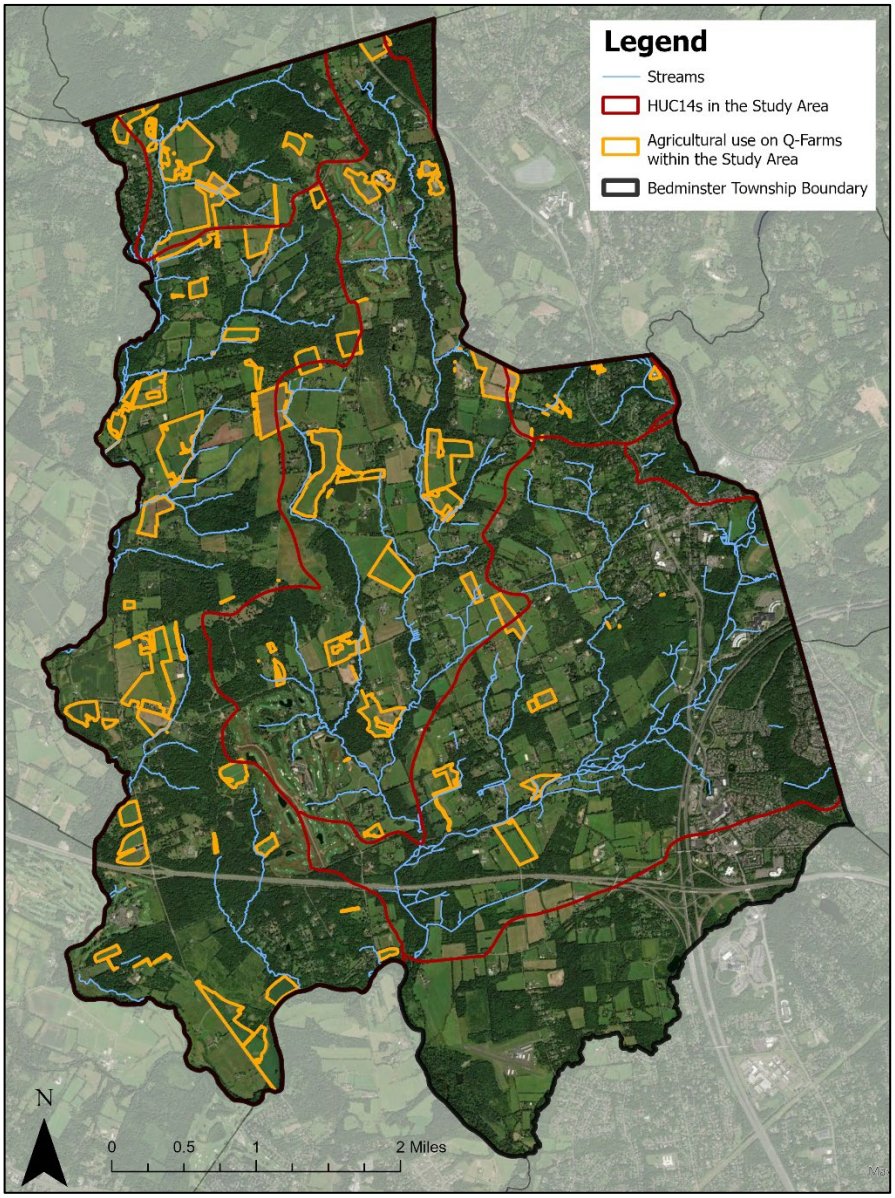


Figure 9: Aerial View of Agricultural Use on Q-Farm Parcels within the Study Area of Bedminster Township

Table 8: Recommendations for Specific Farms in the Study Area of Bedminster Township

North Branch Raritan River Study Area								
Block	**Lot**	**Q-Farm Code**	**Cover Crop**	**Enhanced Stream Buffer**	**Impervious Cover Mgt.**	**Rainwater Harvesting**	**Livestock Exclusion**	**Manure Mgt.**
51	2.1	QFARM						X
52	1.01	QFARM	X					
Lamington River Study Area								
Block	**Lot**	**Q-Farm Code**	**Cover Crop**	**Enhanced Stream Buffer**	**Impervious Cover Mgt.**	**Rainwater Harvesting**	**Livestock Exclusion**	**Manure Mgt.**
8	16	QFARM				X		
8	24.12	QFARM	X					
12	1.14	QFARM	X					
12	1.16	QFARM	X					
12	1.17	QFARM	X					
37	1.01	QFARM	X					
38	4	QFARM	X	X				
46	1	QFARM	X					

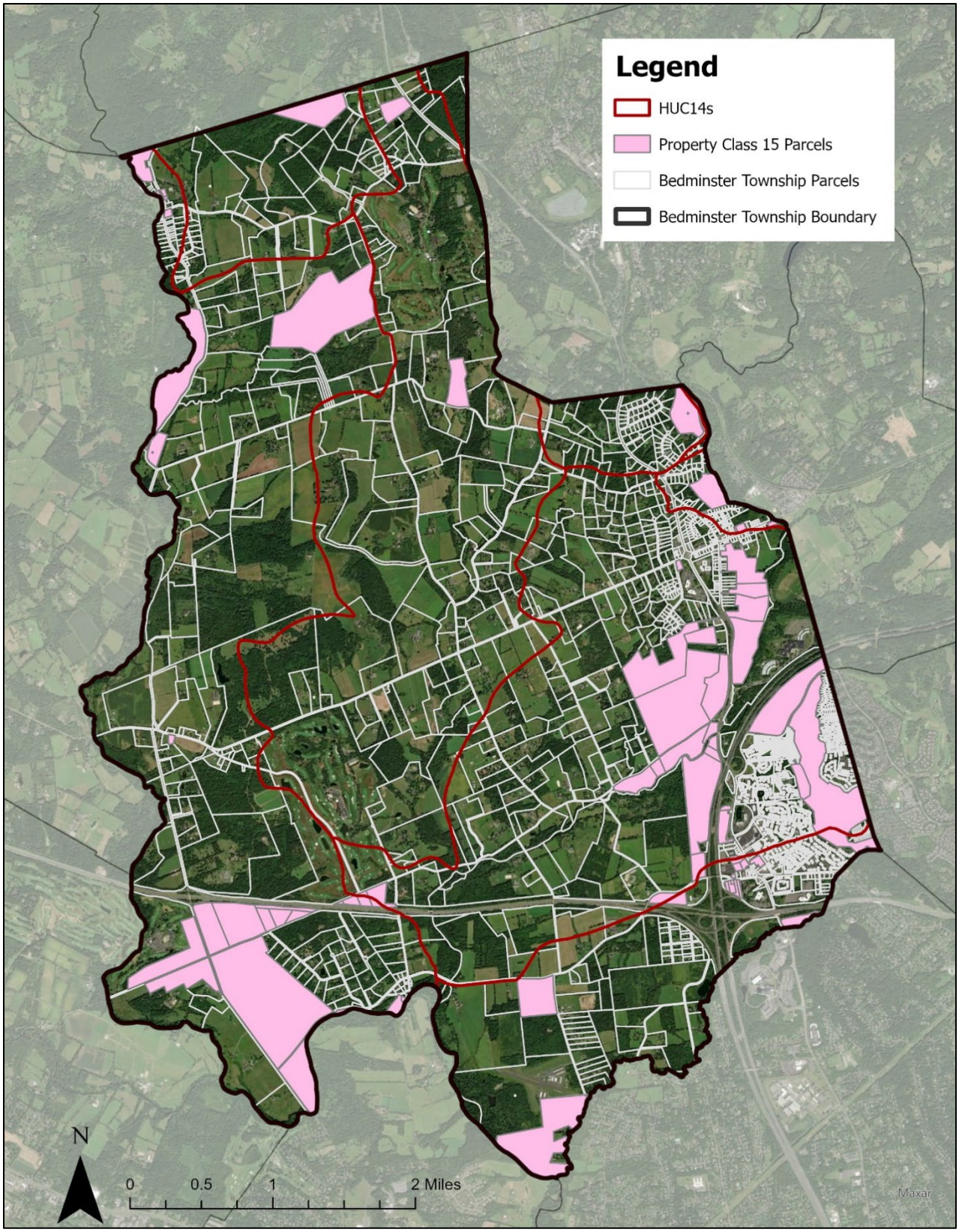


Figure 10: Property Class 15 Parcels in Bedminster Township

Table 9: Property Class 15 Parcels in Bedminster Township

Block	Lot	Prop Class	Location	Facility Type
36	1	15A	Somerville Road	School
2	1	15B	Pottersville Road	Schools
8	20	15B	2121 Larger Cross Road	Educ/Science/Office
38	3	15B	300 Lamington Road	Schools
61	4	15B	1130 Burnt Mills Road	School For Autism
62.01	1	15B	1810 Burnt Mills Road	School For Autism
5	8	15C	1150 Pottersville Road	School
7	22	15C	Black River Road	Vacant Land
8	24.03	15C	Black River Road	Pony Farm
8	24.03	15C	1100 Black River Road	Pony Farm
14	15	15C	Old Dutch Road	Highway R/W
17	7	15C	Route 206	Right of Way
18	21.01	15C	Old Stonehouse Road	Drainage
19	1	15C	West Side Peapack Road	Vacant Land
20	1	15C	East Side Peapack Road	Drainage
23	1	15C	White Oaks Road	Vacant Land
26	8	15C	Deer Haven Road	Park
36	14	15C	Miller Lane	Sewer/Polic/Municpa
36	19	15C	Somerville Road	Municipal Land
37.01	2	15C	Rattlesnake Bridge Road	Farm
38.01	1	15C	Rattlesnake Brdge Road	Farm
38.01	2	15C	Rattlesnake Brdge Road	Farm
38.01	3.01	15C	River Road	Vacant Land
38.01	3.02	15C	River Road	Farm
38.01	3.03	15C	River Road	Farm
41	26	15C	Thosmor Road	Vacant Land
41	30.01	15C	Route 206	Vacant Land
41	34	15C	3055 River Road	Jacobus Vanderveer
41	34.01	15C	3055 River Road	Farm
42	1.01	15C	Route 206	Vacant Land
43.01	1	15C	Schley Mountain Road	Vacant Land
44	1	15C	River Road	Vacant Land
46	4	15C	Milnor Road	Water Shed
53	1	15C	River Road	Park
53	1.02	15C	River Road	Vacant Land
53	2	15C	River Road	Vacant Land
54	5	15C	Burnt Mills Road	Vacant Land
54	10	15C	Burnt Mills Road	Green Acres
59	1	15C	Schley Mountain Road	Vacant Land
59	1.102	15C	Ann Obrien Archeological	Archeological Dig
61	7	15C	81 Airport Road	Farmpreservation
71	3	15C	2000 Burnt Mills Road	Vacant Land
71	4	15C	2020 Burnt Mills Road	Schoolhouse Parcel
71	4.01	15C	Burnt Mills Road	Vacant Land
71	5	15C	2032 Burnt Mills Road	Vacant Land

71	6	15C	2042 Burnt Mills Road	Vacant Land
5	1.04	15D	3545 Route 206	Church
8.01	1	15D	2090 Black River Road	Church
32	4	15D	355 Main Street	Parsonage
32	5	15D	375 Main Street	Church
57	6.01	15D	Burnt Mills Road	Cancer Support Cnj
57	11	15D	285 Route 202/206	Church;Medical Minst
57	12	15D	279 Route 202/206	Church
57	12.01	15D	279 Route 202/206	Schools
1	1	15F	Hacklebarney Road	Park
1	8	15F	Hacklebarney Road	Vacant Land
2	2	15F	28 Hacklebarney Road	Recreation Cntr
2	3	15F	8 Hacklebarney Road	Volunteer Fire Co.
2	7	15F	Bedminster Grove Road	Agricultural Reserva
9	7	15F	Spook Hollow Road	Farm
*19	2	15F	151 Peapack Road	Farm
19	2	15F	151 Peapack Road	Farm
20	2	15F	100 Peapack Road	Farm
20	2	15F	100 Peapack Road	Farm
35	14	15F	500 Main Street	Rescue Squad
38.01	3.04	15F	River Road	Right of Way
41	16.01	15F	2336 Lamington Road	Library
45	1	15F	500 Rattlesnake Bridge Rd	Farm
45	1	15F	Rattlesnake Bridge Road	Farm
45.01	1	15F	405 River Road	Right of Way
45.01	2	15F	River Road	Right of Way
45.01	3	15F	River Road	Right of Way
45.01	4	15F	River Road	Right of Way
46	1	15F	100 Rattlesnake Bridge Rd	Farm
53	2.01	15F	River Road & Route 206	Right of Way
54	1	15F	Route 206	Right of Way
54	2	15F	725 Route 206	House
54.01	1	15F	Route 206	Right of Way
55.01	2	15F	455-457 Route 206	Maintenance Yard
58	7	15F	286 Route 202/206	Senior Cit. Complex
59.06	9627	15F	27 Cambridge Road	Disabled Veteran
59.1	3345	15F	45 Sage Court	Disabled Veteran
59.23	81107	15F	107 Cortland Lane	Disabled Veteran
61	7	15F	81 Airport Road	Farm
72.01	1	15F	25 Route 206	Recreation Center

*Only a portion of the parcel is within the Bedminster Township boundary

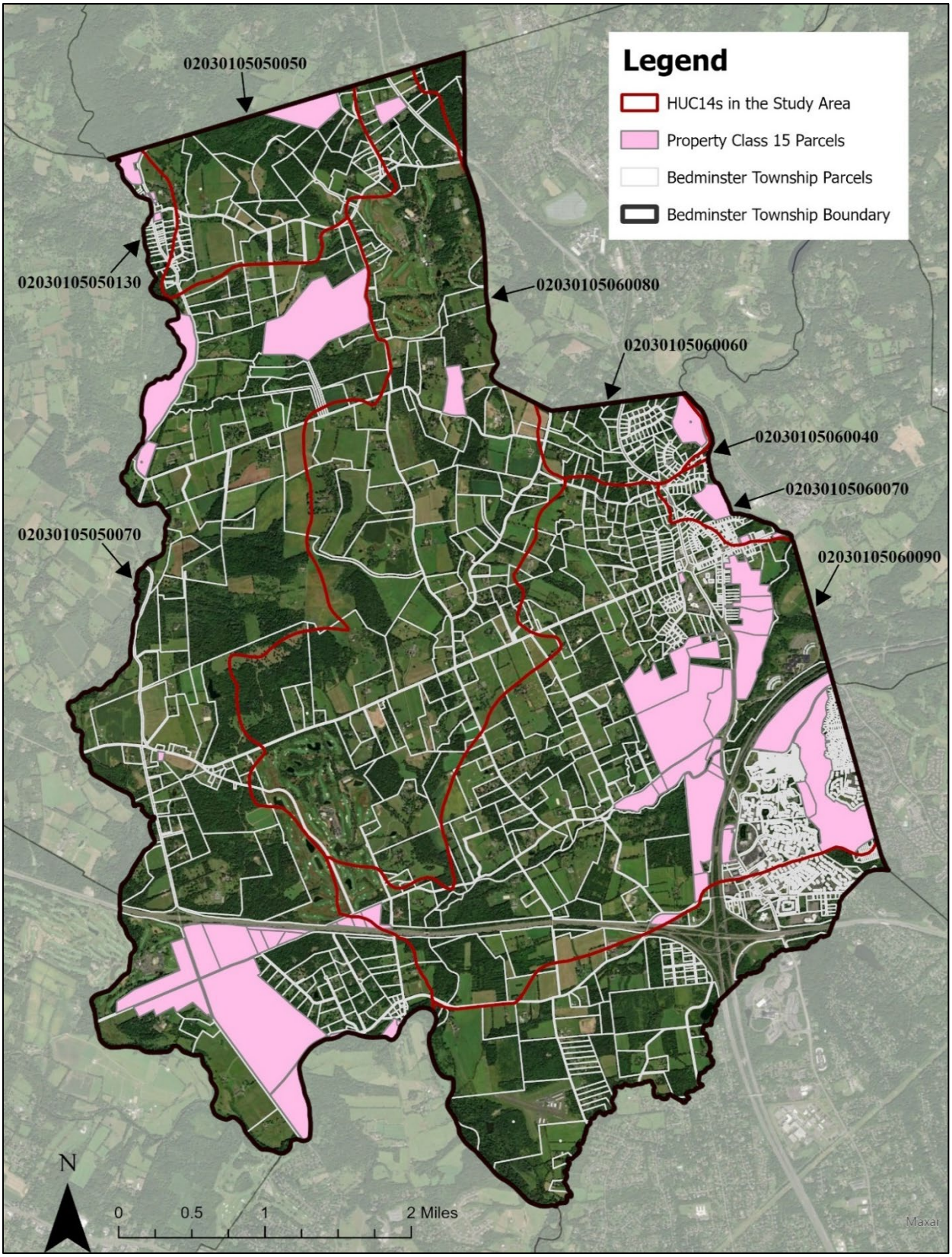


Figure 11: Property Class 15 Parcels in the Study Area of Bedminster Township

Table 10: Property Class 15 Parcels in the Study Area of Bedminster Township

Block	Lot	Prop Class	Location	Facility Type
***36**	**1**	**15A**	**Somerville Road**	**School**
2	1	15B	Pottersville Road	Schools
8	20	15B	2121 Larger Cross Road	Educ/Science/Office
38	3	15B	300 Lamington Road	Schools
61[1]	4	15B	1130 Burnt Mills Road	School For Autism
***62.01[1]**	**1**	**15B**	**1810 Burnt Mills Road**	**School for Autism**
5	8	15C	1150 Pottersville Road	School
7	22	15C	Black River Road	Vacant Land
8	24.03	15C	Black River Road	Pony Farm
8	24.03	15C	1100 Black River Road	Pony Farm
14	15	15C	Old Dutch Road	Highway R/W
17	7	15C	Route 206	Right of Way
18	21.01	15C	Old Stonehouse Road	Drainage
19	1	15C	West Side Peapack Road	Vacant Land
20	1	15C	East Side Peapack Road	Drainage
23	1	15C	White Oaks Road	Vacant Land
26	8	15C	Deer Haven Road	Park
***36**	**14**	**15C**	**Miller Lane**	**Sewer/Police/Municipal**
***36**	**19**	**15C**	**Somerville Road**	**Municipal Land**
37.01	2	15C	Rattlesnake Bridge Road	Farm
38.01	1	15C	Rattlesnake Brdge Road	Farm
38.01	2	15C	Rattlesnake Brdge Road	Farm
38.01	3.01	15C	River Road	Vacant Land
38.01	3.02	15C	River Road	Farm
38.01	3.03	15C	River Road	Farm
41	26	15C	Thosmor Road	Vacant Land
41	30.01	15C	Route 206	Vacant Land
41	34	15C	3055 River Road	Jacobus Vanderveer
41	34.01	15C	3055 River Road	Farm
42	1.01	15C	Route 206	Vacant Land
43.01	1	15C	Schley Mountain Road	Vacant Land
44	1	15C	River Road	Vacant Land
46	4	15C	Milnor Road	Water Shed
53	1	15C	River Road	Park
53	1.02	15C	River Road	Vacant Land
53	2	15C	River Road	Vacant Land
***54[1]**	**5**	**15C**	**Burnt Mills Road**	**Vacant Land**
54	10	15C	Burnt Mills Road	Green Acres
59[1]	1	15C	Schley Mountain Road	Vacant Land
59	1.102	15C	Ann Obrien Archeological	Archeological Dig
***5**	**1.04**	**15D**	**3545 Route 206**	**Church**
8.01	1	15D	2090 Black River Road	Church
32	4	15D	355 Main Street	Parsonage
***32**	**5**	**15D**	**375 Main Street**	**Church**
57[1]	11	15D	285 Route 202/206	Church;Medical Minst
1	1	15F	Hacklebarney Road	Park

1	8	15F	Hacklebarney Road	Vacant Land
2	2	15F	28 Hacklebarney Road	Recreation Cntr
***2**	**3**	**15F**	**8 Hacklebarney Road**	**Volunteer Fire Co.**
2	7	15F	Bedminster Grove Road	Agricultural Reserva
9	7	15F	Spook Hollow Road	Farm
19	2	15F	151 Peapack Road	Farm
19	2	15F	151 Peapack Road	Farm
20	2	15F	100 Peapack Road	Farm
20	2	15F	100 Peapack Road	Farm
35	14	15F	500 Main Street	Rescue Squad
38.01	3.04	15F	River Road	Right of Way
***41**	**16.01**	**15F**	**2336 Lamington Road**	**Library**
45	1	15F	500 Rattlesnake Bridge Rd	Farm
45	1	15F	Rattlesnake Bridge Road	Farm
45.01	1	15F	405 River Road	Right of Way
45.01	2	15F	River Road	Right of Way
45.01	3	15F	River Road	Right of Way
45.01	4	15F	River Road	Right of Way
46	1	15F	100 Rattlesnake Bridge Rd	Farm
53	2.01	15F	River Road & Route 206	Right of Way
54	1	15F	Route 206	Right of Way
54	2	15F	725 Route 206	House
54.01	1	15F	Route 206	Right of Way
55.01	2	15F	455-457 Route 206	Maintenance Yard
59.1	3345	15F	45 Sage Court	Disabled Veteran
59.23	81107	15F	107 Cortland Lane	Disabled Veteran

*** Sites that can be retrofitted with green infrastructure**

[1]Only a portion of the parcel is within the study area

Figure 12: Sites with Green Infrastructure Opportunities in Bedminster Township

POTTERSVILLE VOLUNTEER FIRE COMPANY

RAP ID: 1

Subwatershed: Lamington River

HUC14 ID: 02030105050130

Site Area: 16,327 sq. ft.

Address: 8 Hacklebarney Road
Pottersville, NJ 07979

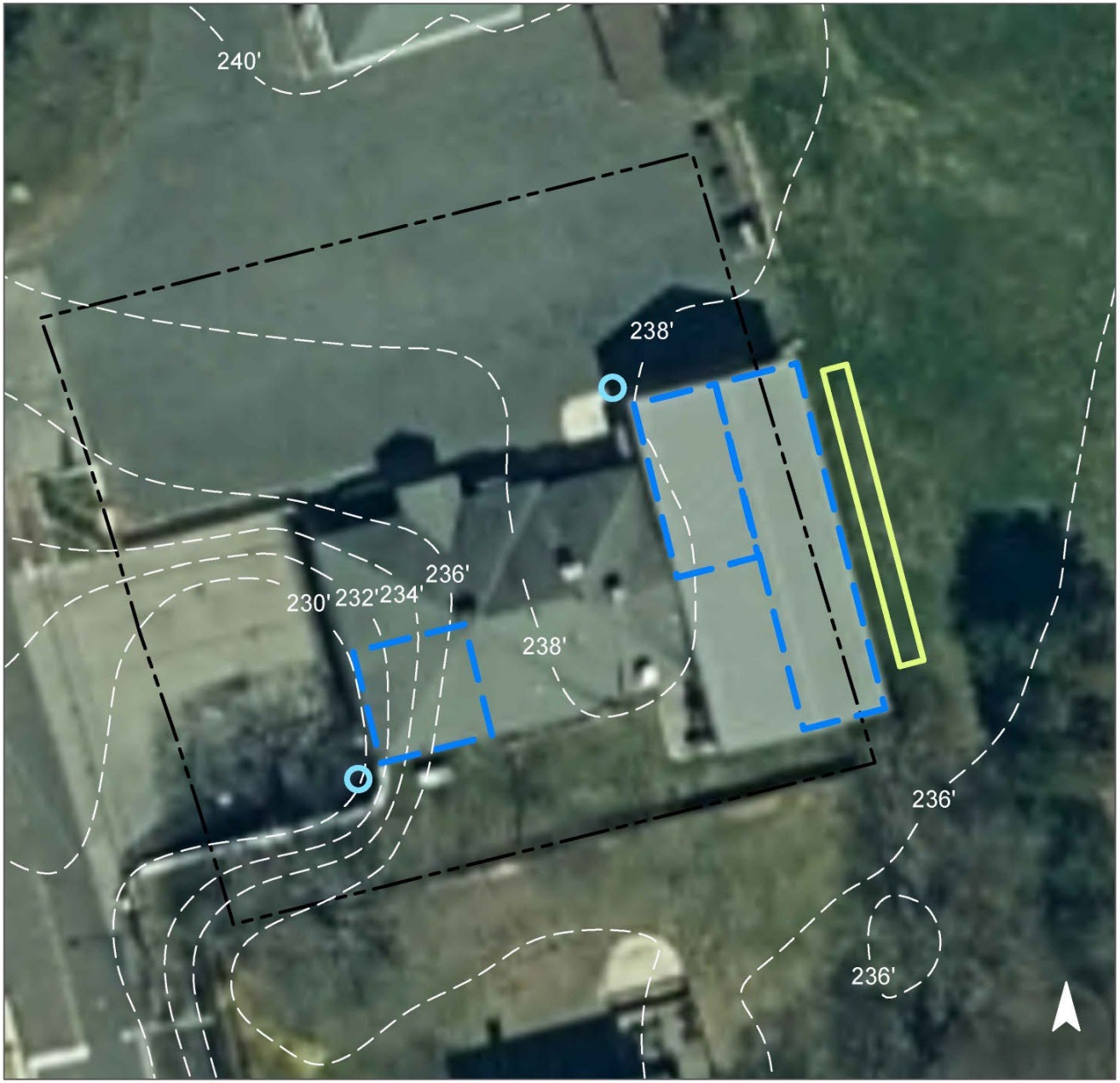
Block and Lot: Block 2, Lot 3

A rain garden can be installed in the grass area to the east of the building to capture, treat, and infiltrate the stormwater runoff from the rooftop. This would require downspout disconnections. Cisterns can be installed to the northeast and southwest of the building to divert and detain the stormwater runoff from the rooftop for later non-potable reuse such as washing vehicles. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure. An underdrain would be required.

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 49"
94	15,311	0.7	7.7	70.3	0.012	0.47

Recommended Green Infrastructure Practices	Drainage Area (sq. ft.)	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	1,155	0.034	6	2,240	0.08	290	$2,900
Rainwater harvesting	1,085	0.031	4	850	N/A	850 (gal)	$2,550

GREEN INFRASTRUCTURE RECOMMENDATIONS



Pottersville Volunteer Fire Company

- bioretention system
- rainwater harvesting
- captured drainage area
- property line
- 2020 Aerial: NJOIT, OGIS

0 15' 30'

RESURGENT CHURCH

RAP ID: 2

Subwatershed: Middle Brook (Raritan River North Branch)

HUC14 ID: 02030105060080

Site Area: 645,494 sq. ft.

Address: 3545 US-206
Far Hills, NJ 07931

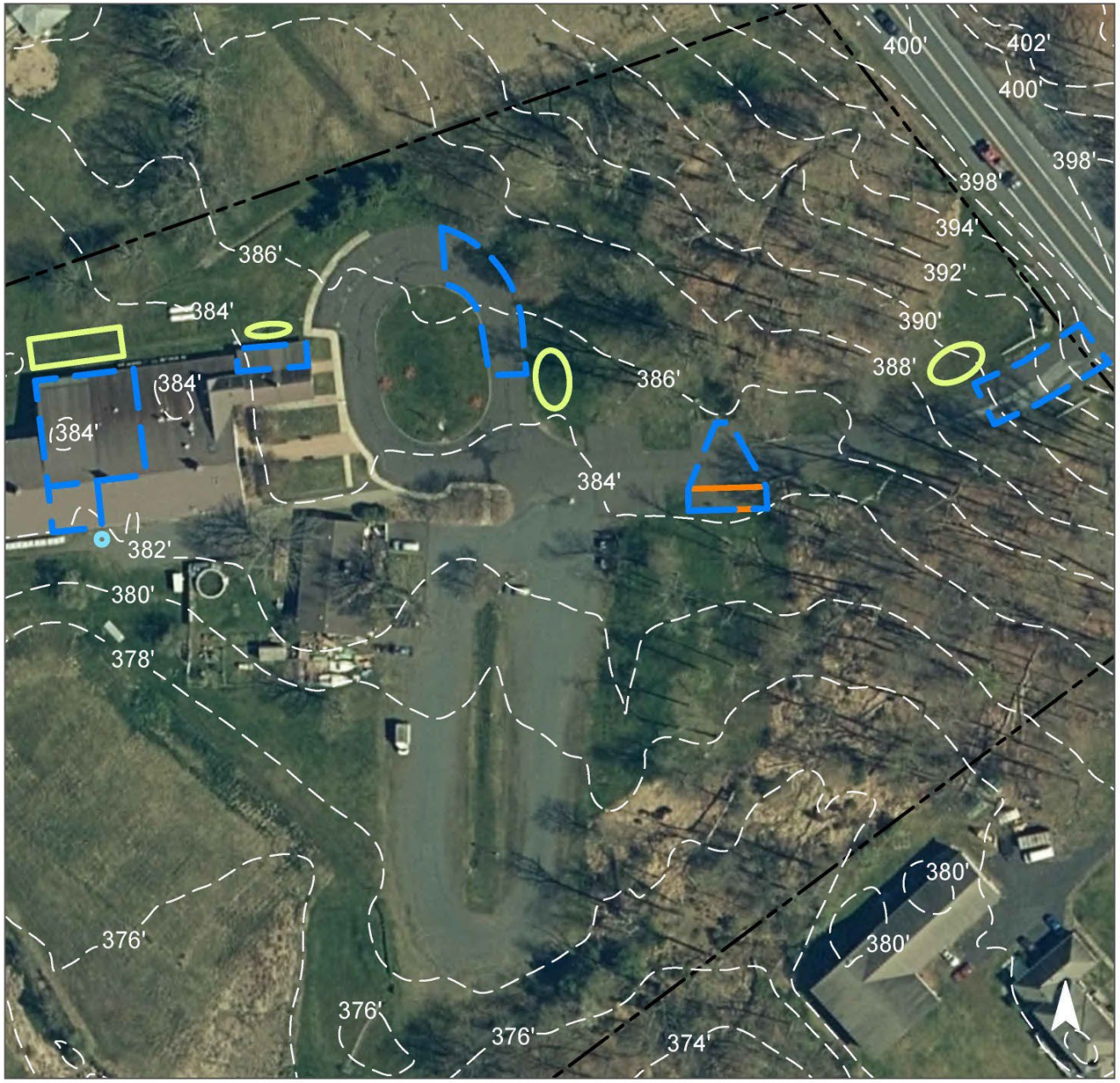
Block and Lot: Block 5, Lot 1.04

Multiple rain gardens can be installed in grass areas around the property to capture, treat, and infiltrate the stormwater runoff from the rooftops and driveway. This may require downspout disconnections, curb cuts, and trench drains. The existing eastern parking spaces can be converted into pervious pavement to capture and infiltrate the stormwater runoff from the driveway. A cistern can be installed to the south of the church building to divert and detain the stormwater runoff from the rooftop for later non-potable reuse such as watering a garden or washing a vehicle. 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 49"
15	94,649	4.6	47.8	434.6	0.074	2.89

Recommended Green Infrastructure Practices	Drainage Area (sq. ft.)	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	10,365	0.301	46	20,080	0.75	2,595	$25,950
Pervious pavement	2,030	0.059	10	3,930	0.15	740	$18,500
Rainwater harvesting	975	0.028	4	800	N/A	800 (gal)	$2,400

GREEN INFRASTRUCTURE RECOMMENDATIONS



Resurgent Church

- bioretention system
- pervious pavement
- rainwater harvesting
- captured drainage area
- property line
- 2020 Aerial: NJOIT, OGIS

0 50' 100'

ANNIE'S DELI

RAP ID: 3

Subwatershed: Raritan River North Branch

Site Area: 14,130 sq. ft.

Address: 2095 Burnt Mills Road
Bedminster, NJ 07921

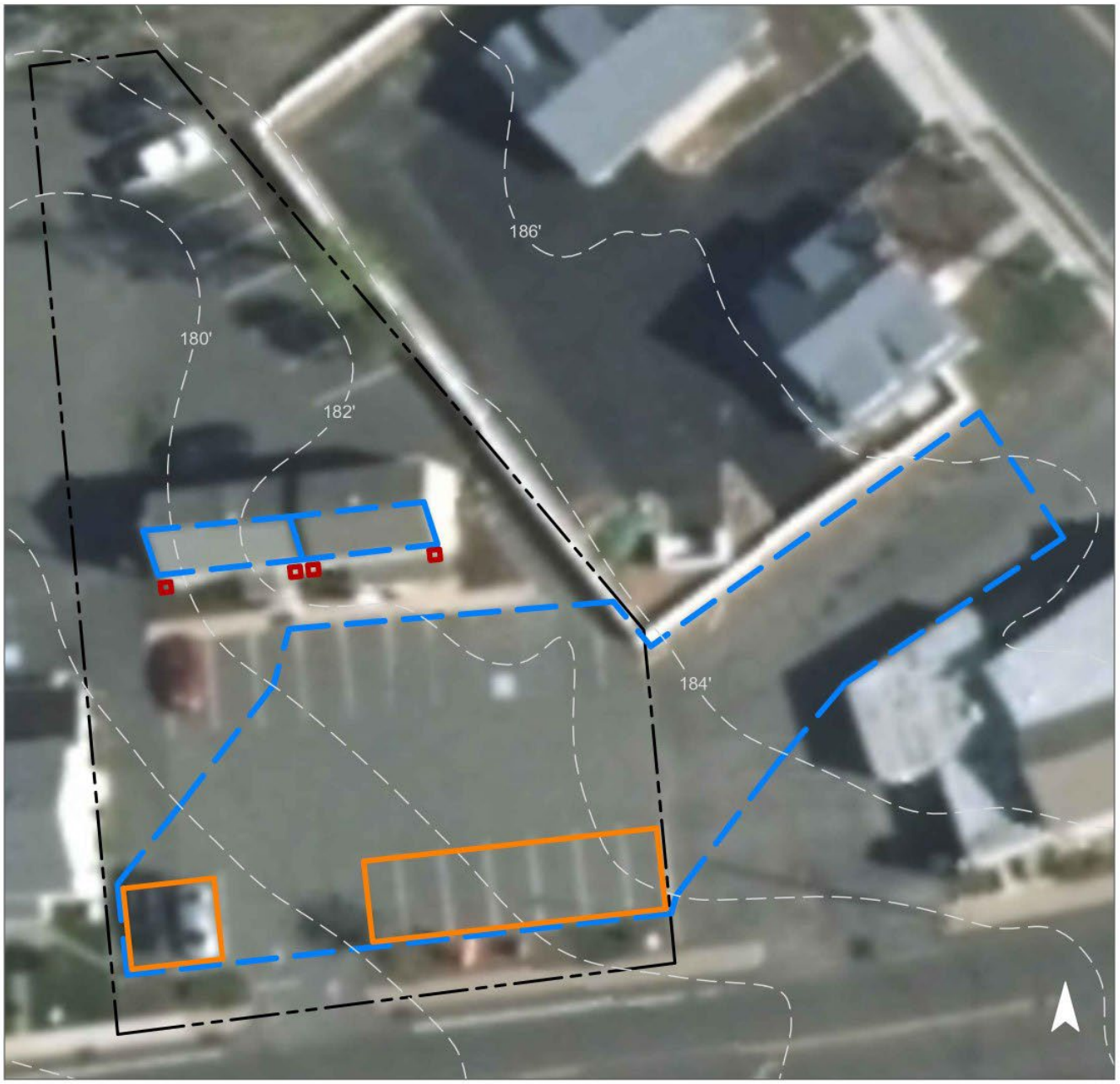
Block and Lot: Block 57, Lot 19

Parking spaces located in the south section of the parking lot can be replaced with pervious pavement to capture and infiltrate stormwater. Downspouts at Annie's Deli can be disconnected and directed into downspout planter boxes to capture and filter 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"
85	12,012	0.6	6.1	55.1	0.009	0.33

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	0.226	38	16,570	0.73	1,440	$36,000
Planter boxes	n/a	2	n/a	n/a	4 (boxes)	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Annie's Deli

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

0 15' 30'

BEDMINSTER PUBLIC SCHOOL

RAP ID: 4

Subwatershed: Raritan River North Branch

Site Area: 1,345,130 sq. ft.

Address: 234 Somerville Road
Bedminster, NJ 07921

Block and Lot: Block 36, Lot 1

Pervious pavement can be installed in the front parking lot of the building to capture storm water runoff from the parking lot. A preliminary soil assessment suggests that the soil is suitable for green infrastructure implementations.

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"
19	251,990	12.1	127.3	1,157.0	0.196	6.91

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	0.636	107	46,690	2.06	4,300	$107,500

GREEN INFRASTRUCTURE RECOMMENDATIONS

Bedminster Public School

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

0 50' 100'

BEDMINSTER TOWNSHIP MUNICIPAL COURT

RAP ID: 5

Subwatershed: Raritan River North Branch

Site Area: 802,900 sq. ft.

Address: 55 Miller Lane
Bedminster, NJ 07921

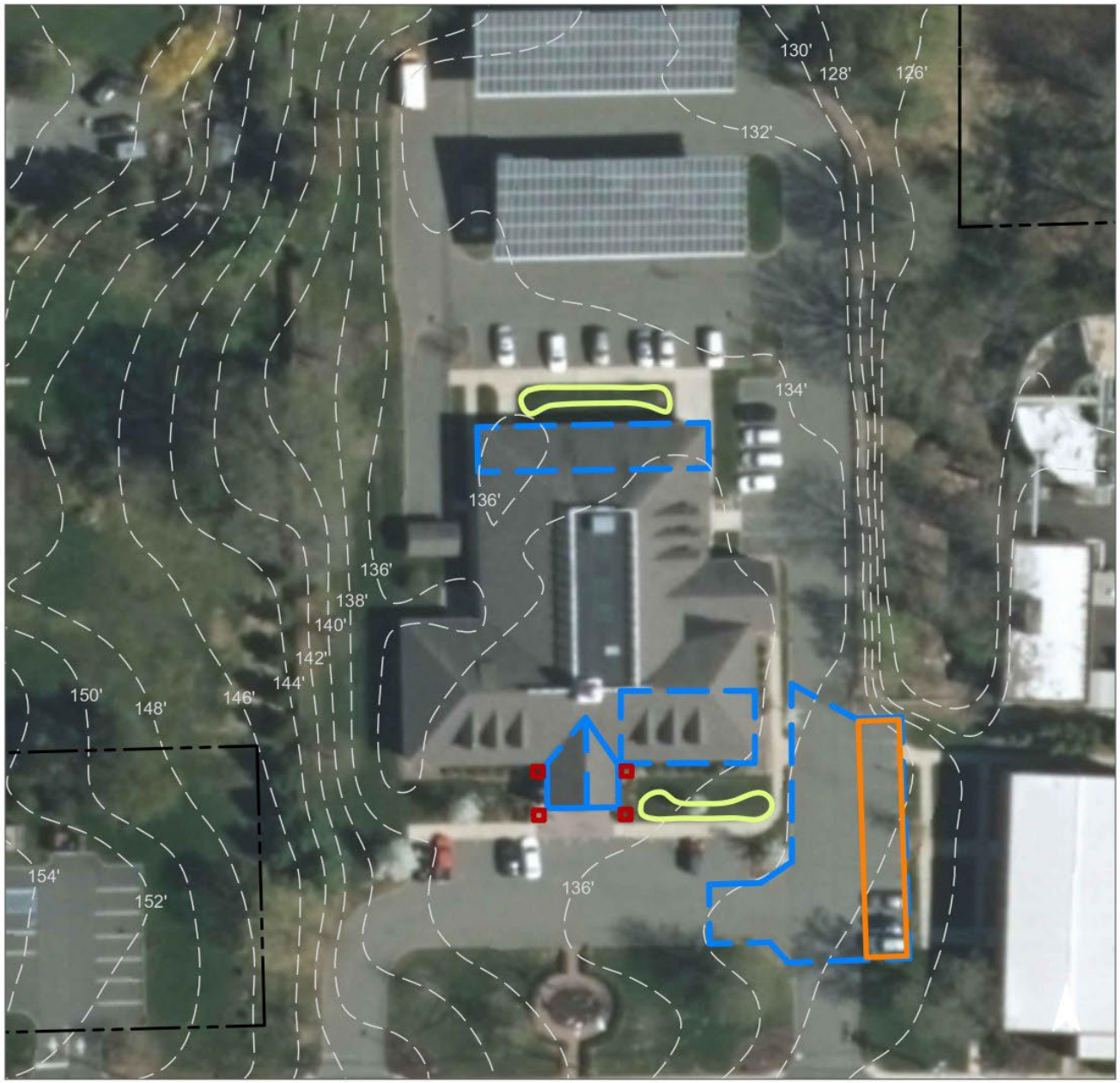
Block and Lot: Block 36, Lots 10,11,12,14

Bioretention systems can be installed to capture, treat, and infiltrate rooftop runoff on the north and south of the building. Pervious pavement can be installed in the southeast corner of the parking lot to capture and infiltrate stormwater. 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"
25	203,380	9.8	102.7	933.8	0.158	5.58

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	0.081	14	5,955	0.26	795	$3,975
Pervious pavement	0.138	23	10,115	0.45	1,710	$42,750
Planter boxes	n/a	3	n/a	n/a	4 (boxes)	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bedminster Municipal Court

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

0 30' 60'

BEDMINSTER USPS

RAP ID: 6

Subwatershed: Raritan River North Branch

Site Area: 29,710 sq. ft.

Address: 251 Somerville Road
Bedminster, NJ 07921

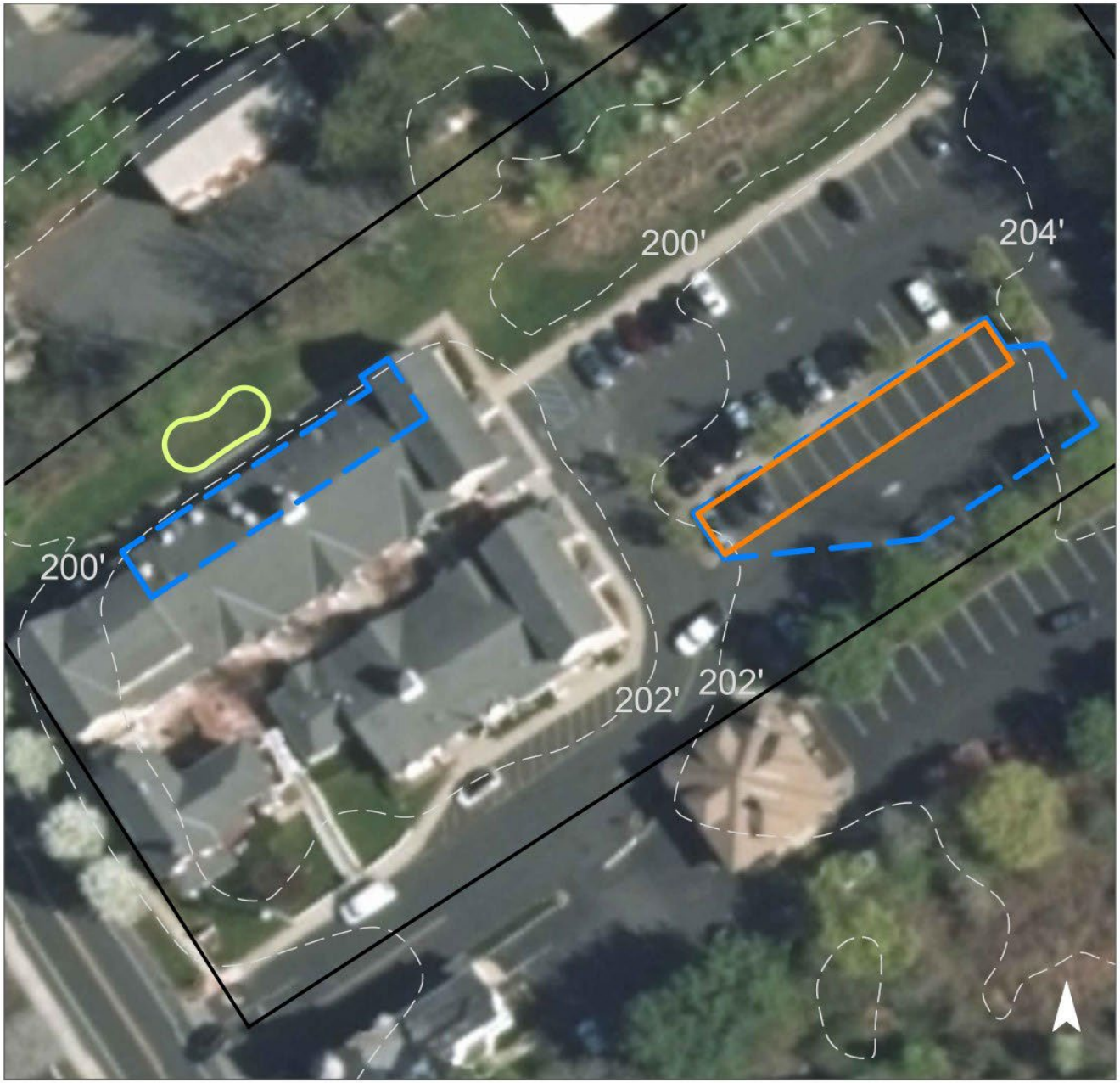
Block and Lot: Block 33, Lot 11

A rain garden can be installed east of the building to capture runoff from the building's roof. Additionally, pervious pavement can be installed in the parking lot to capture stormwater before it reaches the drain. 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"
83	24,750	1.2	12.5	113.6	0.019	0.68

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	0.052	9	3,785	0.17	500	$1,875
Pervious pavement	0.132	22	9,709	0.43	2,070	$51,750

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bedminster USPS

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

0 25' 50'

BURNT MILLS PARK

RAP ID: 7

Subwatershed: Raritan River North Branch

Site Area: 483,140 sq. ft.

Address: 1850 Burnt Mills Road
Bedminster, NJ 07921

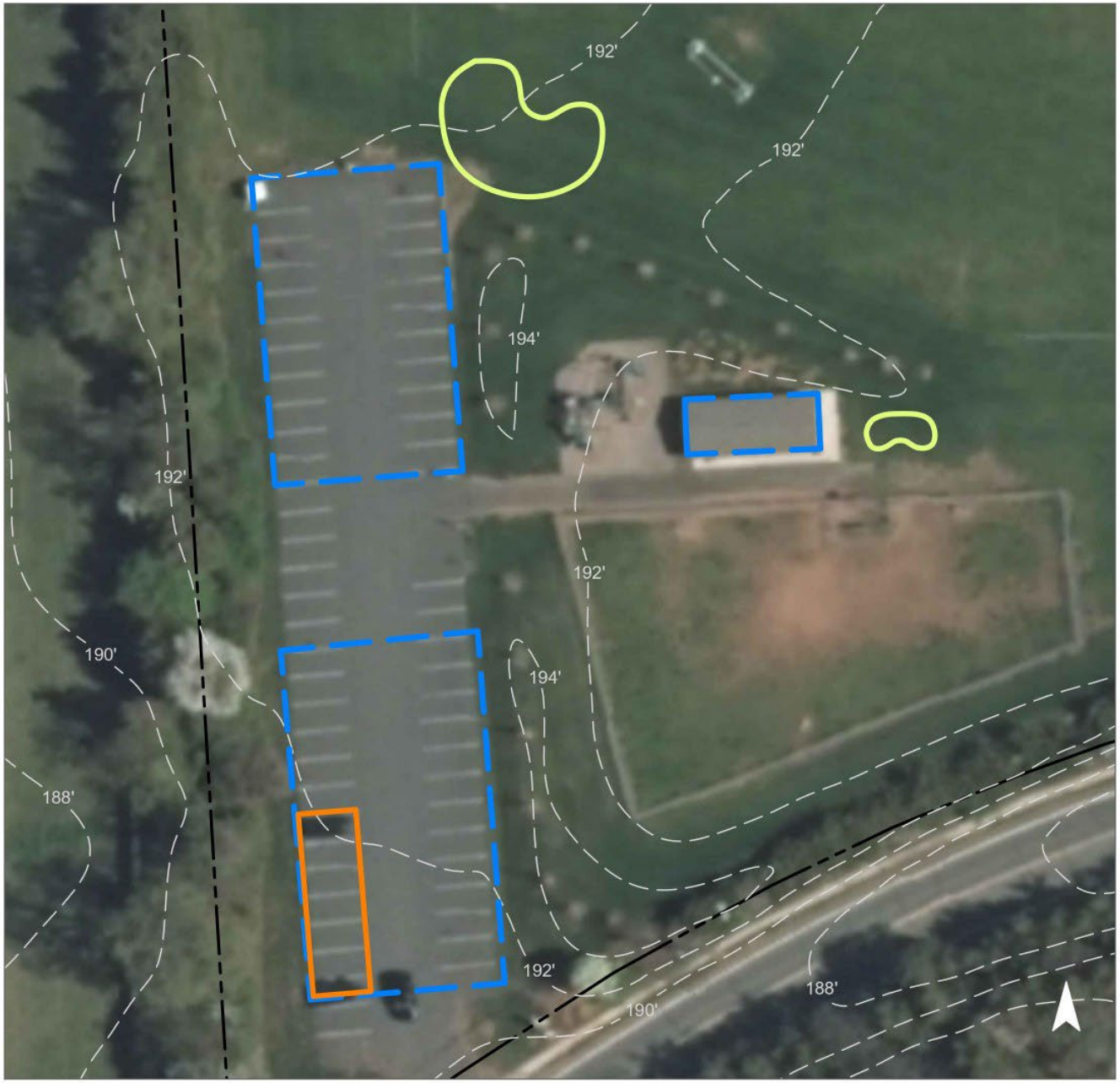
Block and Lot: Block 54, Lot 5

Bioretention systems can be installed to capture, treat, and infiltrate parking lot and rooftop runoff. Potential locations are in the northeast corner of the parking lot and the easternmost side of the structure shown in the above right image. Pervious pavement can be installed in the southwest corner of the parking lot to manage pavement 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"
10	47,790	2.3	24.1	219.4	0.037	1.31

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	0.183	31	13,405	0.59	1,805	$9,025
Pervious pavement	0.193	32	14,175	0.62	1,300	$32,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



Burnt Mills Park

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

0 25' 50'

CLARENCE DILLON PUBLIC LIBRARY

RAP ID: 8

Subwatershed: Raritan River North Branch

Site Area: 70,850 sq. ft.

Address: 2336 Lamington Road
Bedminster, NJ 07921

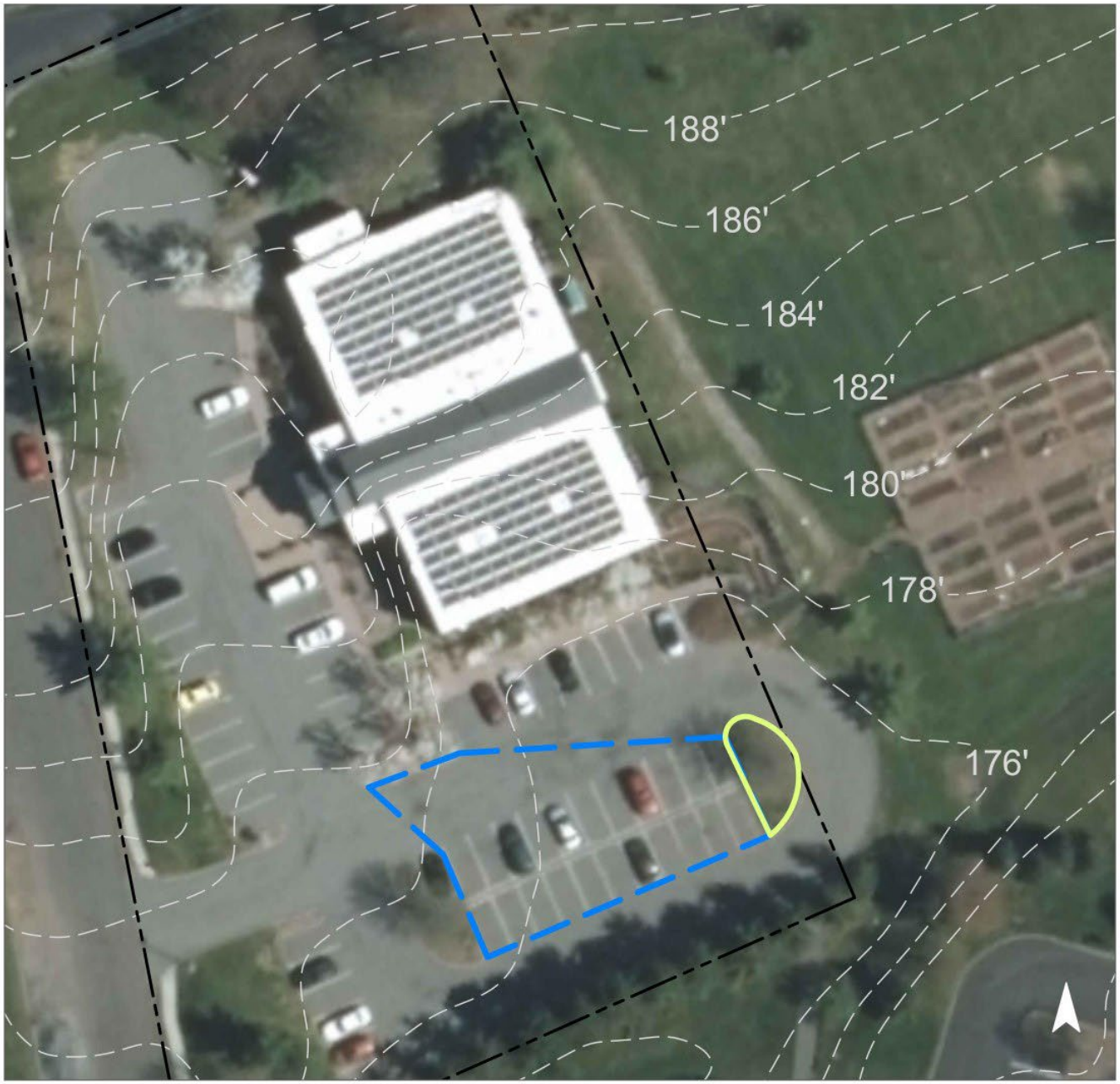
Block and Lot: Block 41, Lot 16.01

A rain garden can be installed on the eastern island in the parking lot to capture stormwater runoff from the impervious surface. 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"
72	51,040	2.5	25.8	234.4	0.040	1.40

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	0.143	24	10,520	0.46	560	$2,810

GREEN INFRASTRUCTURE RECOMMENDATIONS



Clarence Dillon Public Library

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

0 25' 50'

FAR HILLS-BEDMINSTER FIRE DEPARTMENT

RAP ID: 9

Subwatershed: Raritan River North Branch

Site Area: 1,088,910 sq. ft.

Address: 1 Miller Lane
Bedminster, NJ 07921

Block and Lot: Block 36, Lot 19

A cistern can be installed in the southwest corner of the building to allow roof runoff to be reused. A bioretention system can be installed at the northeast corner of the building to capture, treat, and infiltrate rooftop runoff. Pervious pavement can be installed in the parking spaces behind and south of the building to filter and infiltrate pavement 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"
4	48,960	2.4	24.7	224.8	0.038	1.34

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	0.250	42	18,300	0.81	2,300	$11,500
Pervious pavement	0.127	21	15,580	0.69	1,500	$37,500
Rainwater harvesting	0.091	15	3,000	0.29	3,000 (gal)	$6,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

Far Hills-Bedminster Fire Department

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

0 30' 60'

FRESH MARKET

RAP ID: 10

Subwatershed: Raritan River North Branch

Site Area: 139,930 sq. ft.

Address: 75 Washington Valley Road
Bedminster, NJ 07921

Block and Lot: Block 58, Lot 13, 14

Pervious pavement can be installed within the parking lot to capture stormwater runoff from the impervious surfaces that surround the area. 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"
95	132,810	6.4	67.1	609.8	0.103	3.64

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	1.039	174	76,235	3.36	8,170	$204,250

GREEN INFRASTRUCTURE RECOMMENDATIONS

Fresh Market

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

0 50' 100'

GRACE CHAPEL

RAP ID: 11

Subwatershed: Raritan River North Branch

HUC14 ID: 02030105060070

Site Area: 95,467 sq. ft.

Address: 375 Main Street
Bedminster, NJ 07921

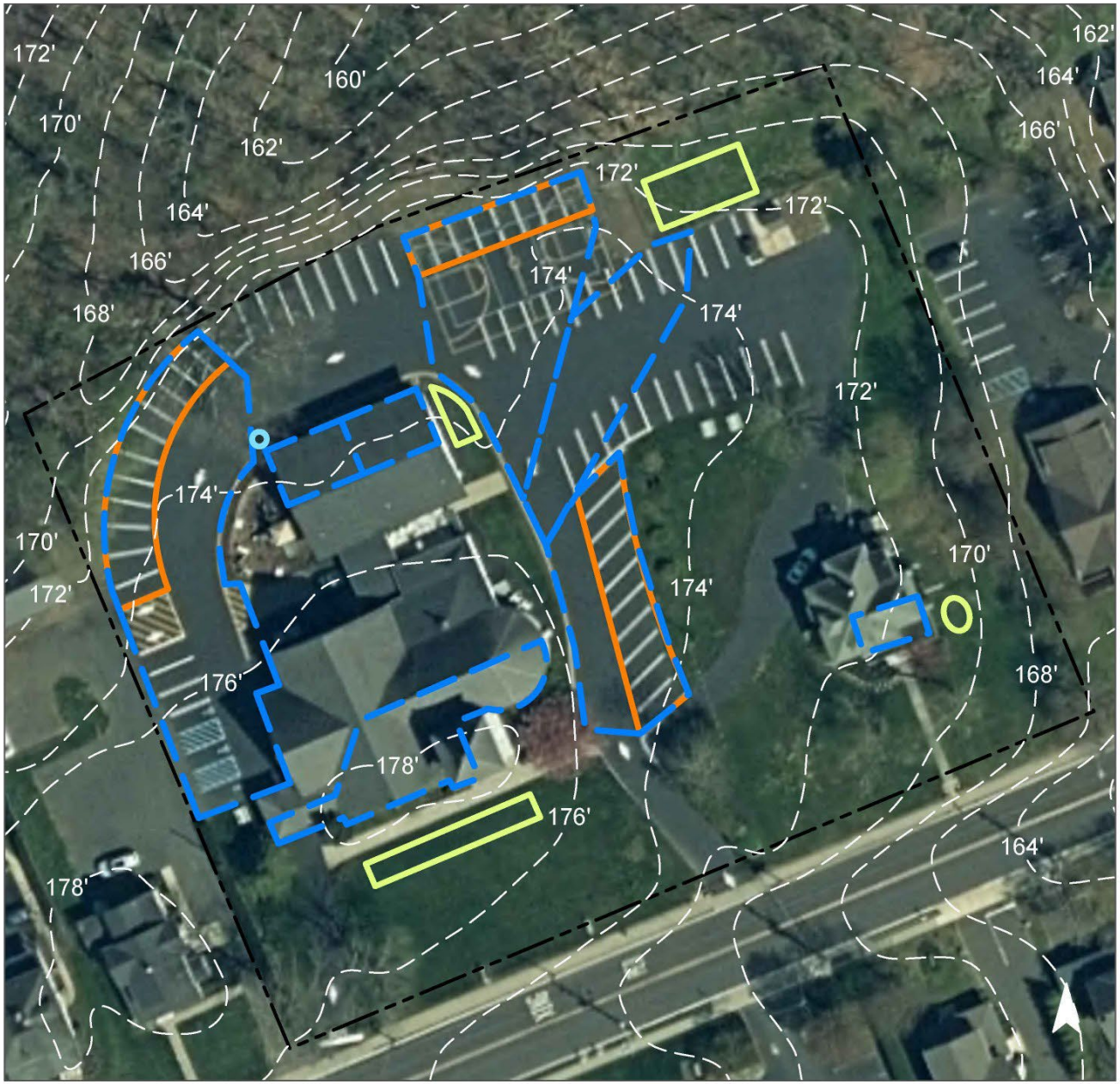
Block and Lot: Block 32, Lot 5

Multiple rain gardens can be installed in grass areas around the property to capture, treat, and infiltrate the stormwater runoff from the rooftops and driveway. This will require downspout disconnections. The existing northern, eastern, and western parking spaces can be converted into pervious pavement to capture and infiltrate the stormwater runoff from the driveway and parking lot. A cistern can be installed to the north of the church building to divert and detain the stormwater runoff from the rooftop for later non-potable reuse such as watering a garden. 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 49"
65	61,662	3.0	31.1	283.1	0.048	1.88

Recommended Green Infrastructure Practices	Drainage Area (sq. ft.)	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	7,085	0.206	30	13,720	0.52	1,770	$17,700
Pervious pavement	16,675	0.484	72	32,290	1.21	5,140	$128,500
Rainwater harvesting	735	0.021	4	600	N/A	600 (gal)	$1,800

GREEN INFRASTRUCTURE RECOMMENDATIONS



Grace Chapel

- bioretention system
- pervious pavement
- rainwater harvesting
- captured drainage area
- property line
- 2020 Aerial: NJOIT, OGIS

0 30' 60'

MILLER LANE PARK

RAP ID: 12

Subwatershed: Raritan River North Branch

Site Area: 617,490 sq. ft.

Address: 75 Miller Lane
Bedminster, NJ 07921

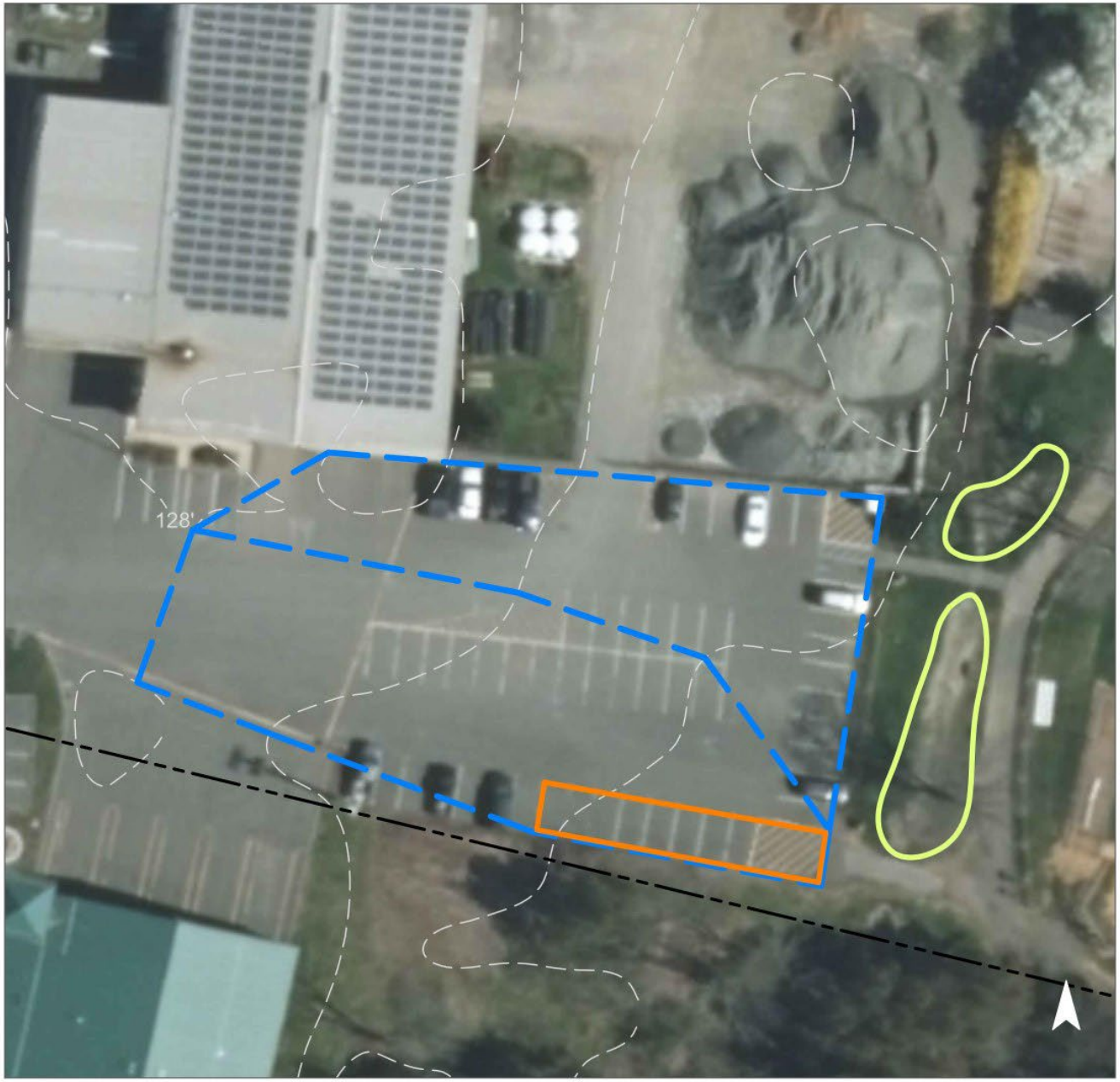
Block and Lot: Block 36, Lot 14

Connected bioretention systems can be installed on the eastern edge of the parking lot to capture, treat, and infiltrate runoff. The systems can be linked by pipes (already installed) shown in the above image. Pervious pavement can be installed in the parking spaces on the southern edge of the parking lot to filter and infiltrate pavement 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"
22	133,840	6.5	67.6	614.5	0.104	3.67

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	0.273	46	19,995	0.88	2,640	$13,200
Pervious pavement	0.361	60	26,472	1.17	1,740	$43,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



Miller Lane Park

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

0 25' 50'

OASIS DAY SPA

RAP ID: 13

Subwatershed: Raritan River North Branch

Site Area: 10,890 sq. ft.

Address: 274 US Highway 202/206 North
Pluckemin, NJ 07978

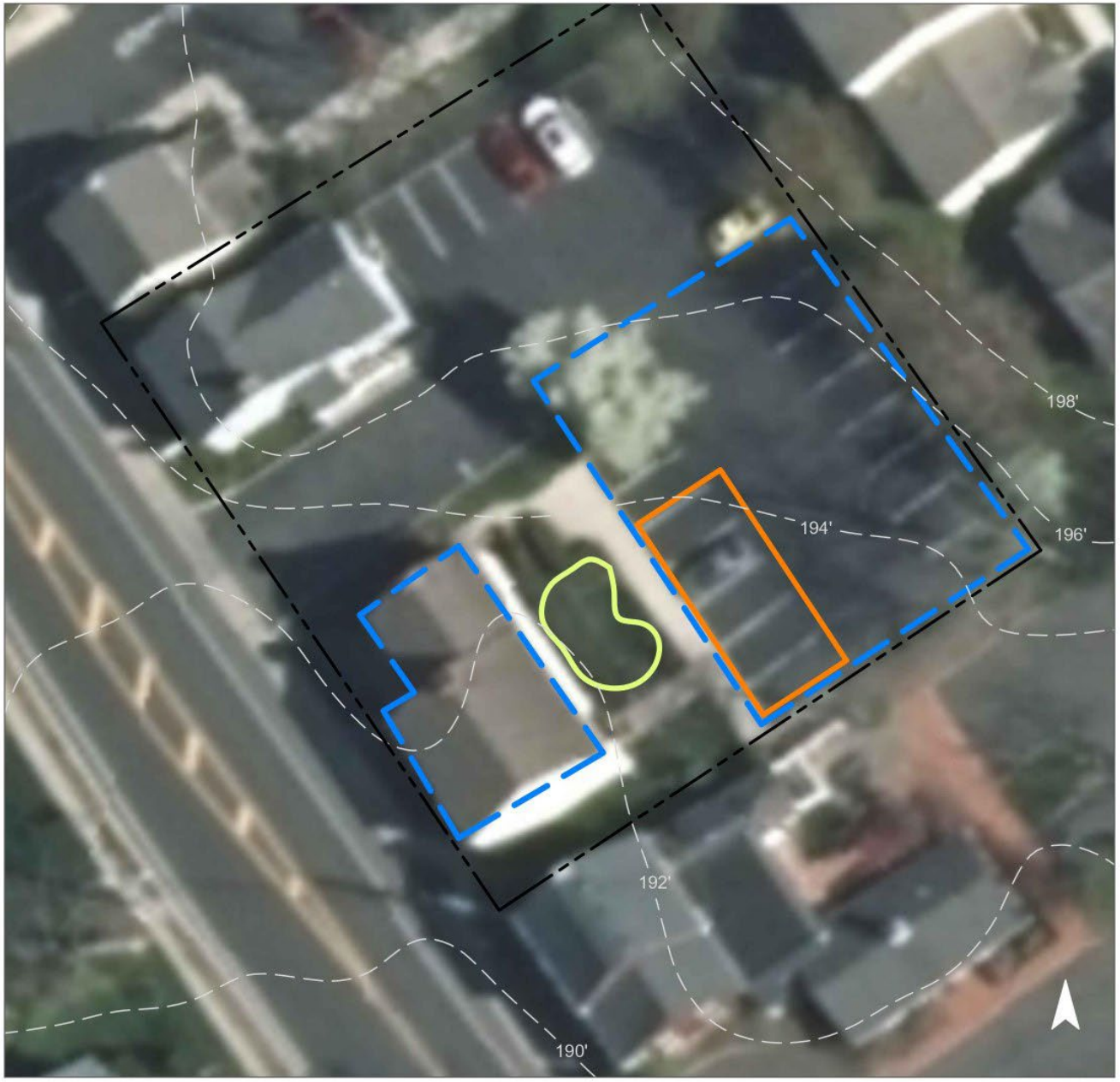
Block and Lot: Block 58, Lots 9 and 10

A bioretention system can be installed northeast of the building, adjacent to the parking lot, to capture, treat, and infiltrate rooftop runoff. The potential site location is shown in the above left image. Pervious pavement can be installed on the southwest side of the parking lot, adjacent to the sidewalk, to capture, filter, and infiltrate pavement 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"
85	9,250	0.4	4.7	42.5	0.007	0.25

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	0.036	6	2,655	0.12	360	$1,800
Pervious pavement	0.130	22	9,462	0.42	880	$22,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Oasis Day Spa

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

0 15' 30'

PLUCKEMIN USPS

RAP ID: 14

Subwatershed: Raritan River North Branch

Site Area: 81,890 sq. ft.

Address: 318 US Highway 206
Pluckemin, NJ 07921

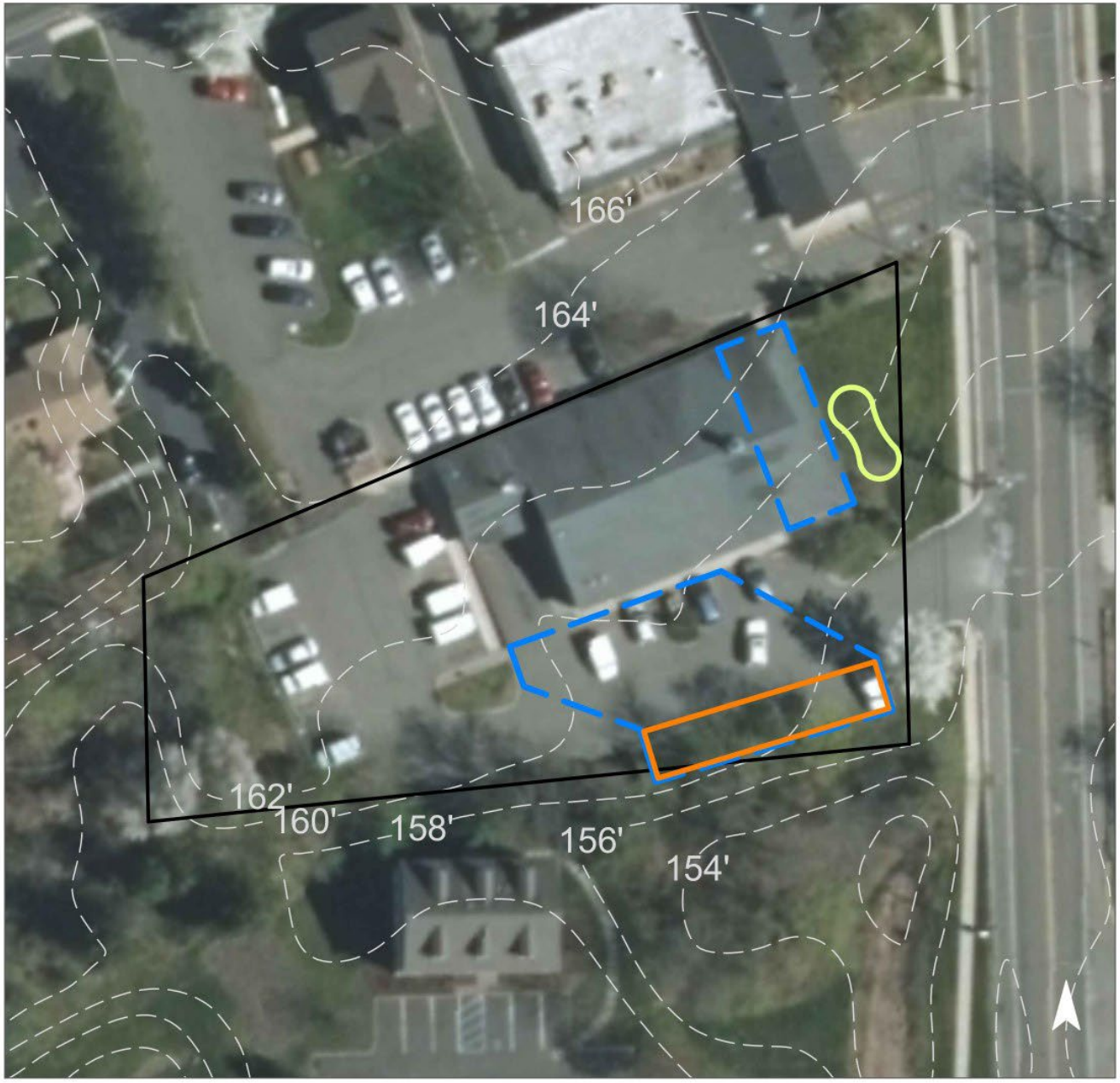
Block and Lot: Block 58, Lot 2

A rain garden can be installed north of the building to capture, treat, and infiltrate stormwater runoff from the rooftop of the building. Additionally, pervious pavement can be installed in the northeast parking lot to capture stormwater from the parking lot. 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"
100	81,890	3.9	41.4	376.0	0.064	2.25

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	0.038	6	2,798	0.12	360	$1,800
Pervious pavement	0.126	21	9,260	0.41	1,460	$36,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



Pluckemin USPS

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

0 25' 50'

SOMERSET AIRPORT

RAP ID: 15

Subwatershed: Raritan River North Branch

Site Area: 8,831,920 sq. ft.

Address: 150 Airport Road
Bedminster, NJ 07921

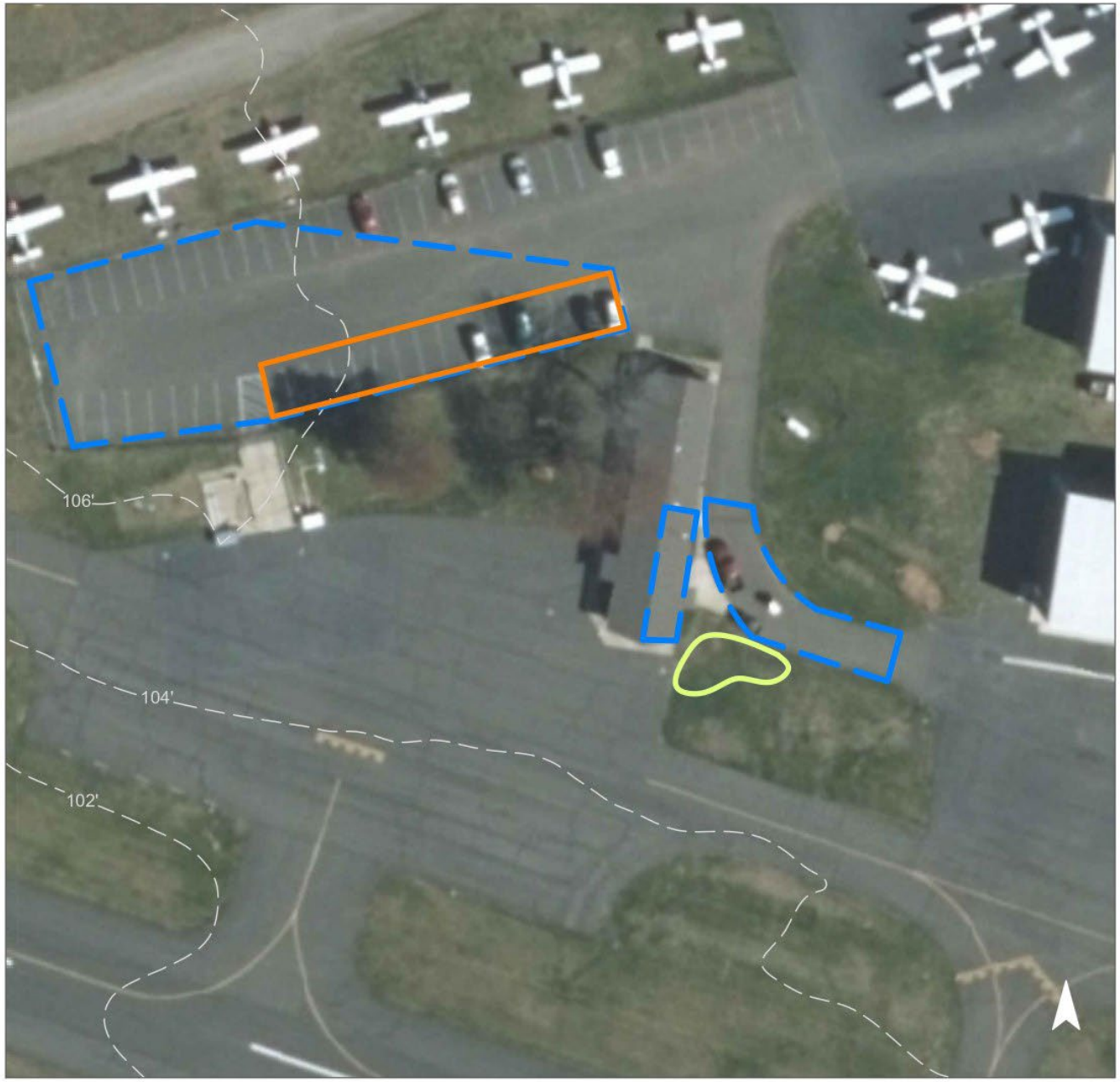
Block and Lot: Block 61, Lot 6

A bioretention system can be installed in the turfgrass located at the southeast corner of the building (shown in the above left image) to capture, treat, and infiltrate rooftop and pavement runoff. Parking spaces can be replaced with pervious pavement to filter and infiltrate stormwater runoff from the parking lot located north of the building shown. 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"
11	953,870	46.0	481.8	4,379.6	0.743	26.16

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	0.070	12	5,161	0.23	675	$1,800
Pervious pavement	0.130	22	9,462	0.42	880	$22,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Somerset Airport

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

0 30' 60'

SOMERSET HILLS LEARNING INSTITUTE

RAP ID: 16

Subwatershed: Raritan River North Branch

Site Area: 538,250 sq. ft.

Address: 1810 Burnt Mills Road
Bedminster, NJ 07921

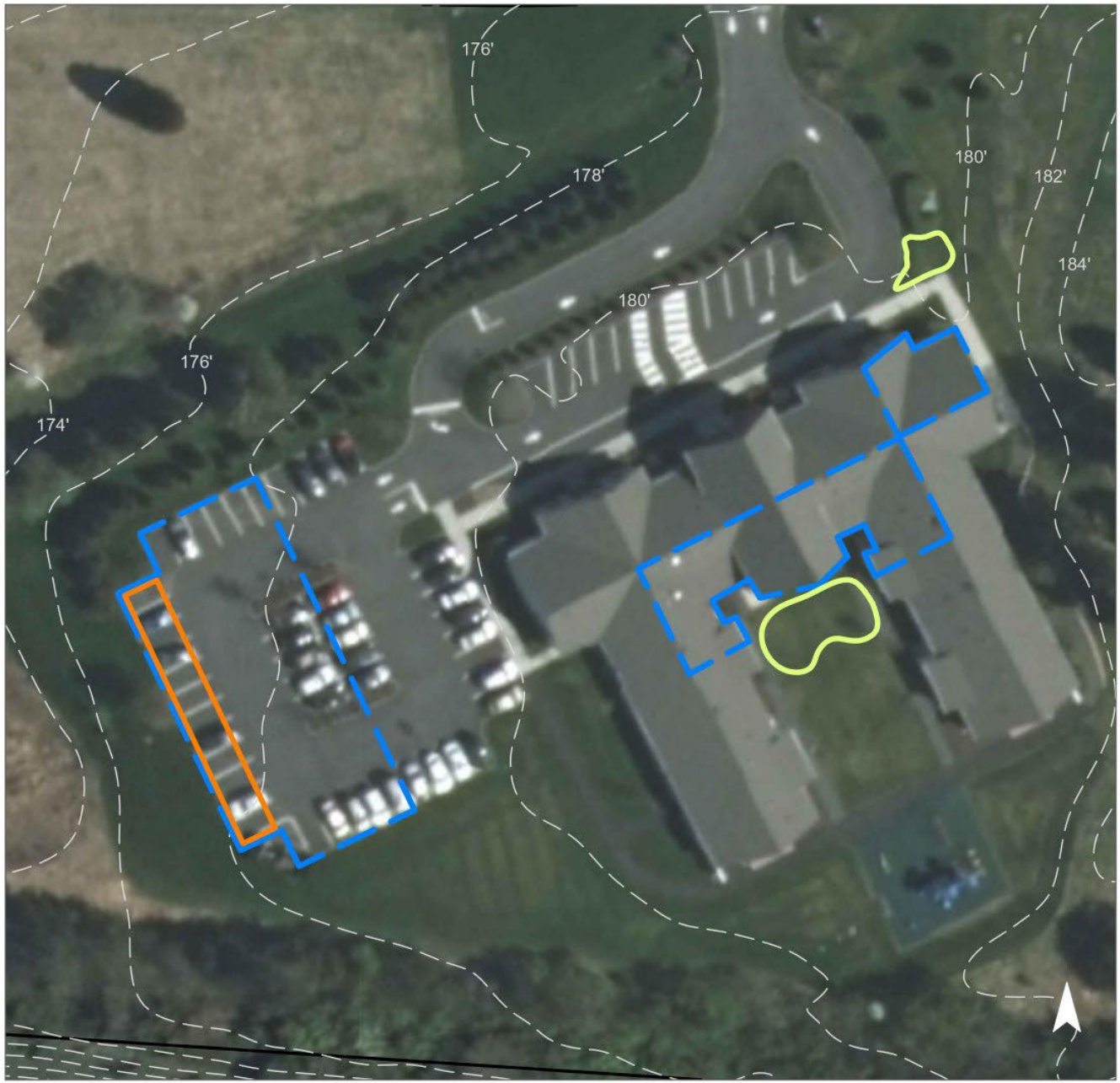
Block and Lot: Block 62.01, Lot 1

Bioretention systems can be installed at the northeast corner of the school (just beyond the corner of the sidewalk seen) and in the center of the courtyard to capture, treat, and infiltrate rooftop runoff. Pervious pavement can be installed at the western edge of the parking lot to manage pavement 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"
11	60,808	2.9	30.7	279.2	0.047	1.67

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	0.143	24	10,517	0.46	1,300	$6,500
Pervious pavement	0.243	41	177,840	0.79	2,015	$50,375

GREEN INFRASTRUCTURE RECOMMENDATIONS



Somerset Hills Learning Institute

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

0 30' 60'

SORDONI CONSTRUCTION COMPANY

RAP ID: 17

Subwatershed: Raritan River North Branch

Site Area: 107,690 sq. ft.

Address: 1 Pluckemin Way
Bedminster, NJ 07921

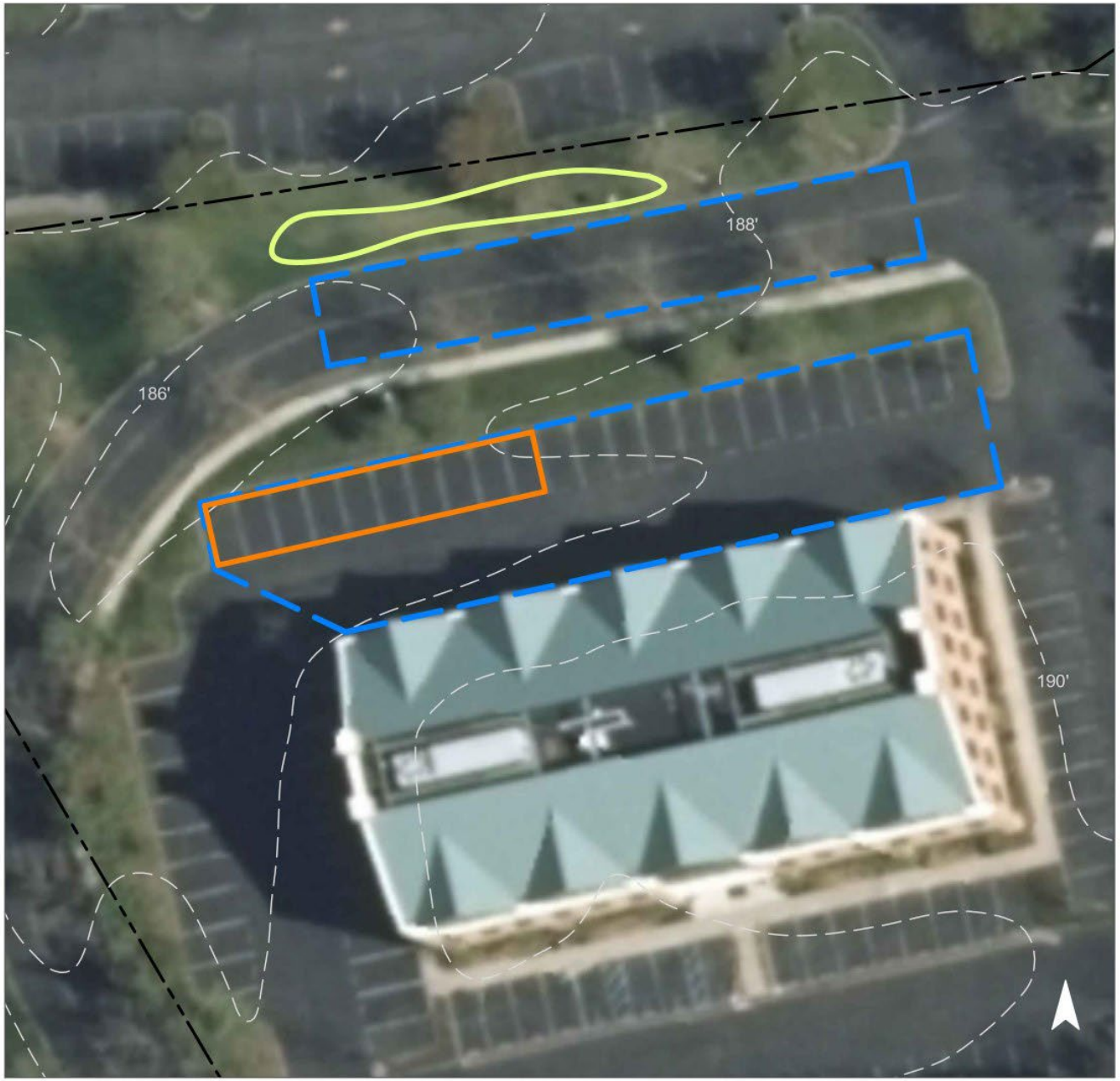
Block and Lot: Block 57, Lot 7

A bioretention system can be installed north of the road in front of the building to manage pavement runoff. Parking spaces north of the building can be replaced with pervious pavement to capture and infiltrate stormwater runoff from the parking lot. 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"
77	83,420	4.0	42.1	383.0	0.065	2.29

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	0.100	17	7,323	0.32	960	$4,800
Pervious pavement	0.214	36	15,738	0.69	1,620	$40,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



Sordoni Construction Co

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

0 20' 40'

THE CENTER FOR CONTEMPORARY ART

RAP ID: 18

Subwatershed: Raritan River North Branch

Site Area: 17,700 sq. ft.

Address: 2020 Burnt Mills Road
Bedminster, NJ 07921

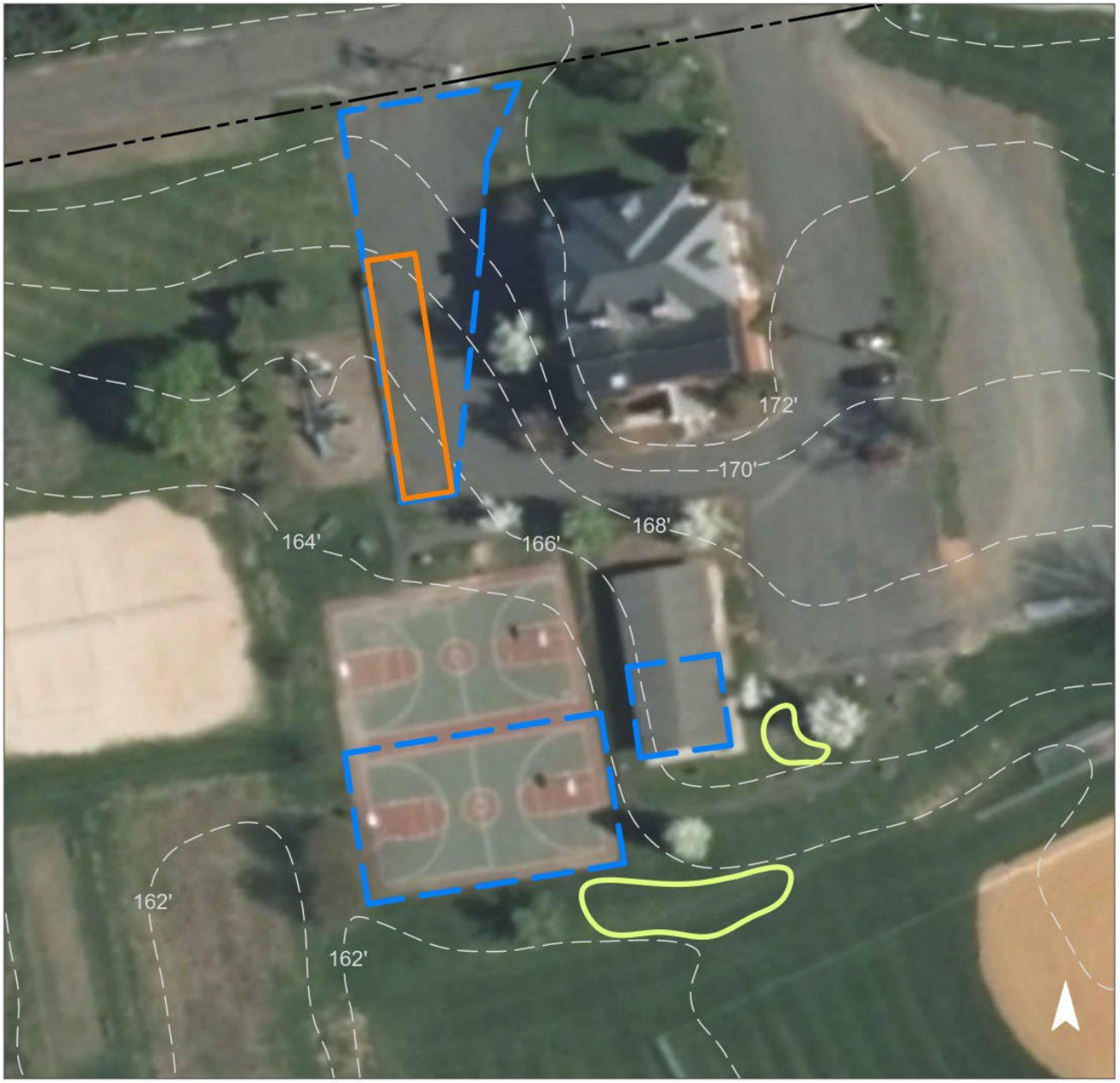
Block and Lot: Block 71, Lot 4

Bioretention systems can be installed southeast of the southernmost building and southeast of the tennis court to capture, treat, and infiltrate rooftop, tennis court, and parking lot runoff. Parking spaces located to the west of the northernmost building can be replaced with pervious pavement to capture and infiltrate stormwater. 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"
59	10,480	0.5	5.3	48.0	0.008	0.29

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	0.134	22	9,844	0.43	1,290	$6,450
Pervious pavement	0.120	20	8,811	0.39	1,460	$36,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



The Center for Contemporary Art

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

0 25' 50'

THE HILLS VILLAGE CENTER

RAP ID: 19

Subwatershed: Raritan River North Branch

Site Area: 535,740 sq. ft.

Address: 402 Route 206 North
Bedminster, NJ 07921

Block and Lot: Block 59.27, Lot 11.1

A bioretention system can be installed on the northwestern side of Pancheros Mexican Grill to capture, treat, and infiltrate rooftop runoff from Pancheros Mexican Grill located in the Hills Village Center. Pervious pavement can be installed in various locations on the northern side of the parking lot to filter and infiltrate pavement 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"
84	448,910	21.6	226.7	2,061.1	0.35	12.31

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	0.079	13	5,782	0.25	735	$3,675
Pervious pavement	0.703	118	51,560	2.27	4,925	$123,125

GREEN INFRASTRUCTURE RECOMMENDATIONS

The Hills Village Center

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

0 50' 100'

THE PLUCKEMIN INN

RAP ID: 20

Subwatershed: Raritan River North Branch

Site Area: 66,940 sq. ft.

Address: 359 US Highway 206
Bedminster, NJ 07921

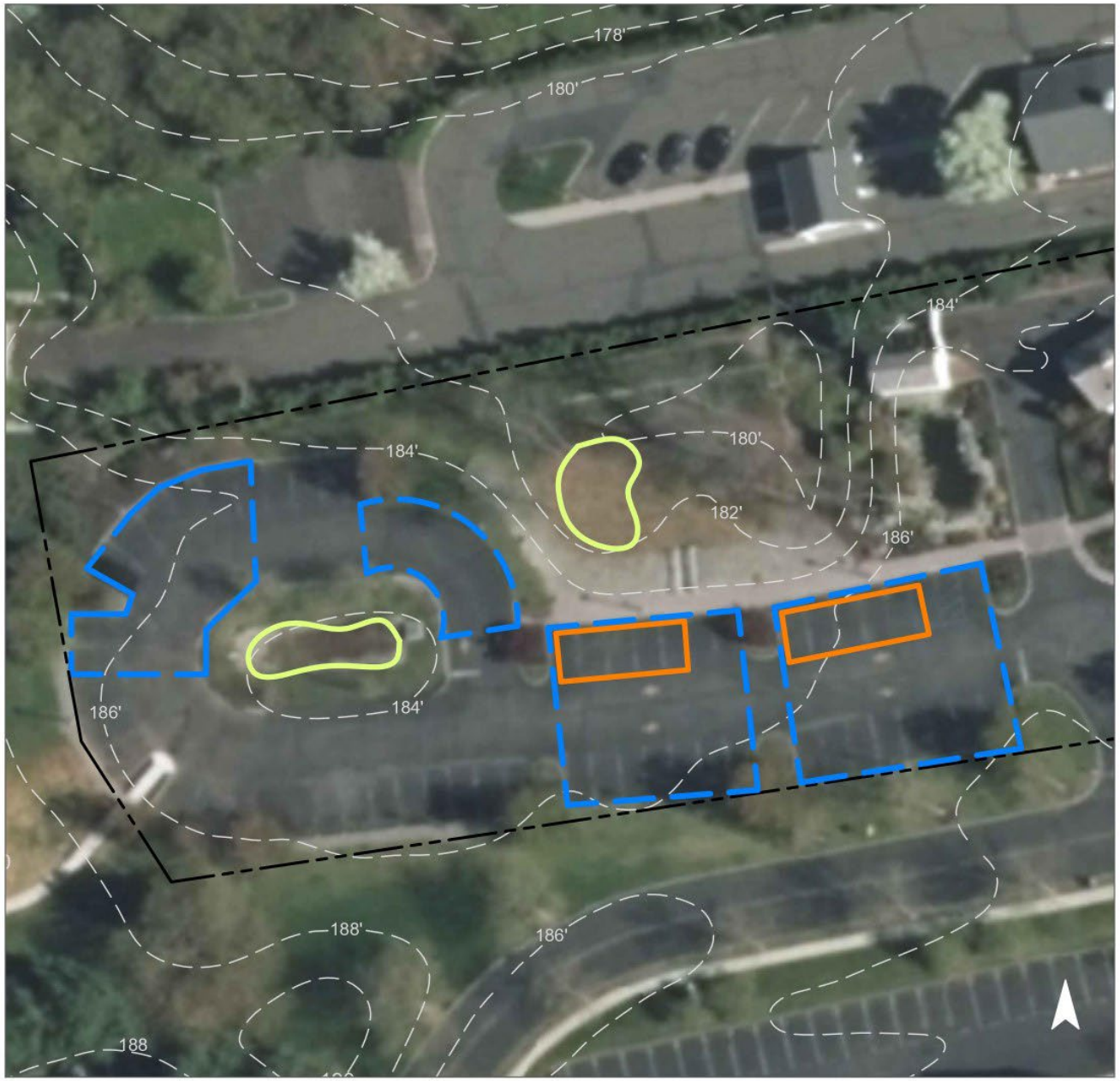
Block and Lot: Block 57, Lot 3

The detention basin in the center of the parking lot can be retrofitted to act as a bioretention system to capture, treat, and infiltrate parking lot runoff. An additional bioretention system can be installed north of the parking lot to capture, treat, and infiltrate additional parking lot runoff. Pervious pavement can be installed in the parking spaces in the northeastern side of the parking lot to infiltrate pavement 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"
70	46,870	2.3	23.7	215.2	0.037	1.29

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	0.109	18	8,011	0.35	1,430	$7,150
Pervious pavement	0.208	35	15,244	0.67	1,435	$35,875

GREEN INFRASTRUCTURE RECOMMENDATIONS



The Pluckemin Inn

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

0 25' 50'

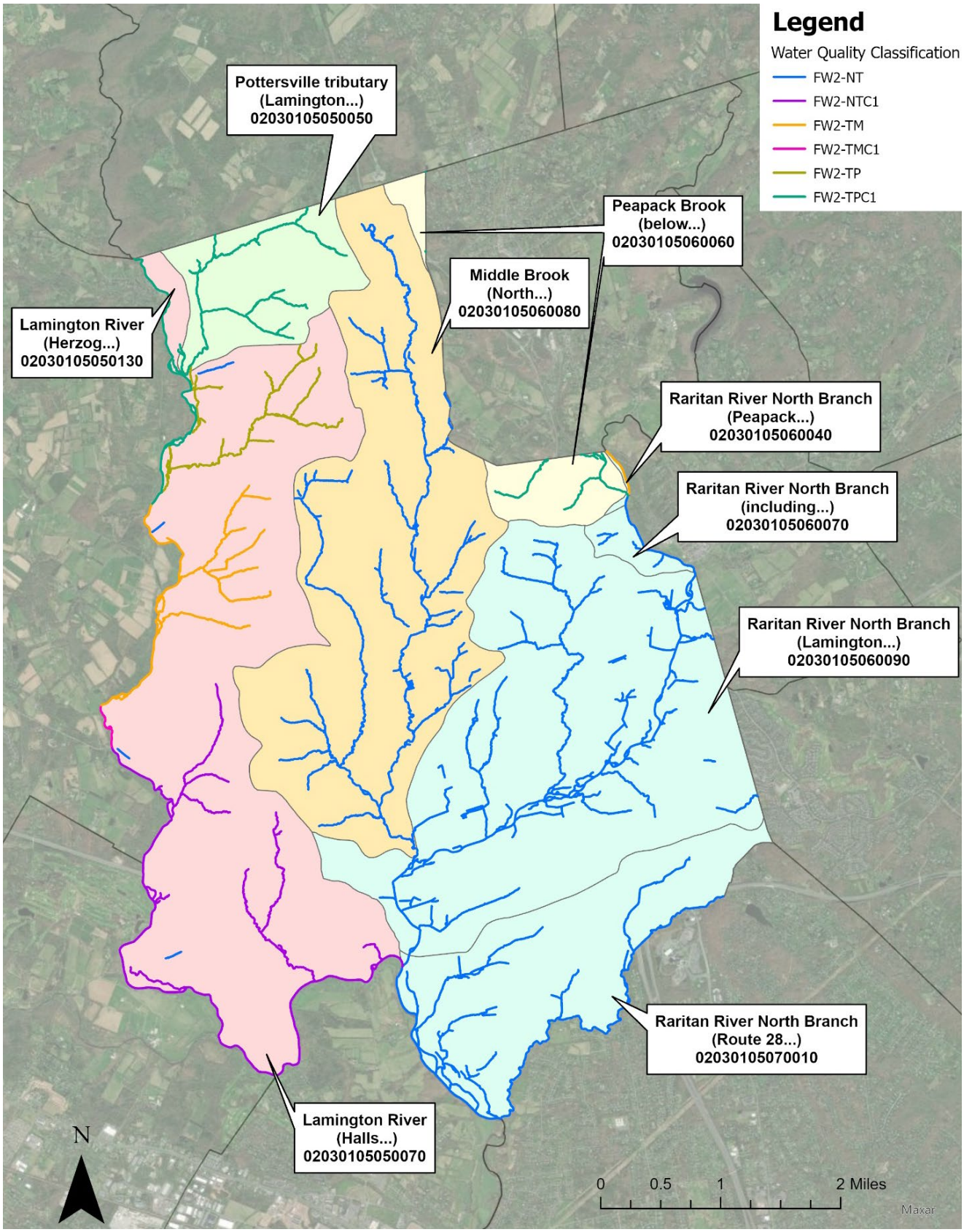


Figure 13. Water Quality Classification of Surface Waters in Bedminster Township

Table 11. Water Quality Classification of Surface Waters in Bedminster Township

Surface Water Quality Classification	Surface Water Quality Code	Miles	Percent of Municipal Streams
Freshwater 2, non-trout	FW2-NT	67.6	63.6 %
Freshwater 2, non-trout, Category One	FW2-NTC1	13.0	12.2%
Freshwater 2, trout production, Category One	FW2-TPC1	11.0	10.4%
Freshwater 2, trout maintenance	FW2-TM	7.9	7.5%
Freshwater 2, trout production	FW2-TP	6.4	6.0%
Freshwater 2, trout maintenance, Category One	FW2-TMC1	0.4	0.4%