Branchburg Township

Introduction

Located in Somerset County in New Jersey, Branchburg Township covers about 20.3 square miles. With a population of 14,940 (2020 United States Census), Branchburg Township consists of 53.0% of urban land uses by area. Of that urban land use, approximately 44.0% 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 29.7% of Branchburg Township.

Branchburg Township contains portions of eight subwatersheds (Table 1). There are approximately 72.9 miles of rivers and streams within the municipality; these include Chambers Brook and its tributaries, Holland Brook and its tributaries, Lamington River and its tributaries, North Branch Raritan River and its tributaries, Pleasant Run and its tributaries, South Branch Raritan River and its tributaries, and an uncoded tributary. Branchburg 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 Branchburg Township

Subwatershed	HUC14
Raritan River South Branch (Pleasant Run-Three Bridges)	02030105040010
Pleasant Run	02030105040020
Holland Brook	02030105040030
Raritan River South Branch (North Branch to Pleasant Run)	02030105040040
Lamington River (Halls Bridge Road-Herzog Brook)	02030105050070
Raritan River North Branch (Route 28 to Lamington River)	02030105070010
Chambers Brook	02030105070020
Raritan River North Branch (below Route 28)	02030105070030

The purpose of this report is to provide a comprehensive understanding of key, defining features within the subwatersheds throughout Branchburg 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 Branchburg Township's existing stormwater infrastructure were provided by the municipality and were manipulated, if necessary, for the specific purposes of this report.

Analysis by Municipality

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

The Q-Farms in Branchburg 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 Branchburg 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 2,218.7 acres of agricultural land use in Branchburg Township, of which, 160.7 acres lie within the study area for this Watershed Restoration and Protection Plan. There

are five Q-Farms in the study area portion of Branchburg Township, totaling 227.9 acres. Within the five Q-Farms, there are approximately 94.8 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. One HUC14 is included in the study area (02030105050070). Within this HUC14, there are 16.2 acres of buildings and 26.9 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 Branchburg Township, approximately 1.0 acres of rooftop runoff would be managed with 0.20 acres of rain gardens. The plan also calls for the management of 10% of the roadways with bioswales. For the study area within Branchburg Township, approximately 2.7 acres of roadway would be managed, or 0.7 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 Branchburg 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. No sites that can be retrofitted with green infrastructure were identified within the study area. 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 two classifications that apply to the streams in Branchburg Township. Figure 13 depicts the water quality classifications of surface waters throughout Branchburg Township and Table 11 summarizes the total miles and percentage of each surface water quality classification in the municipality.

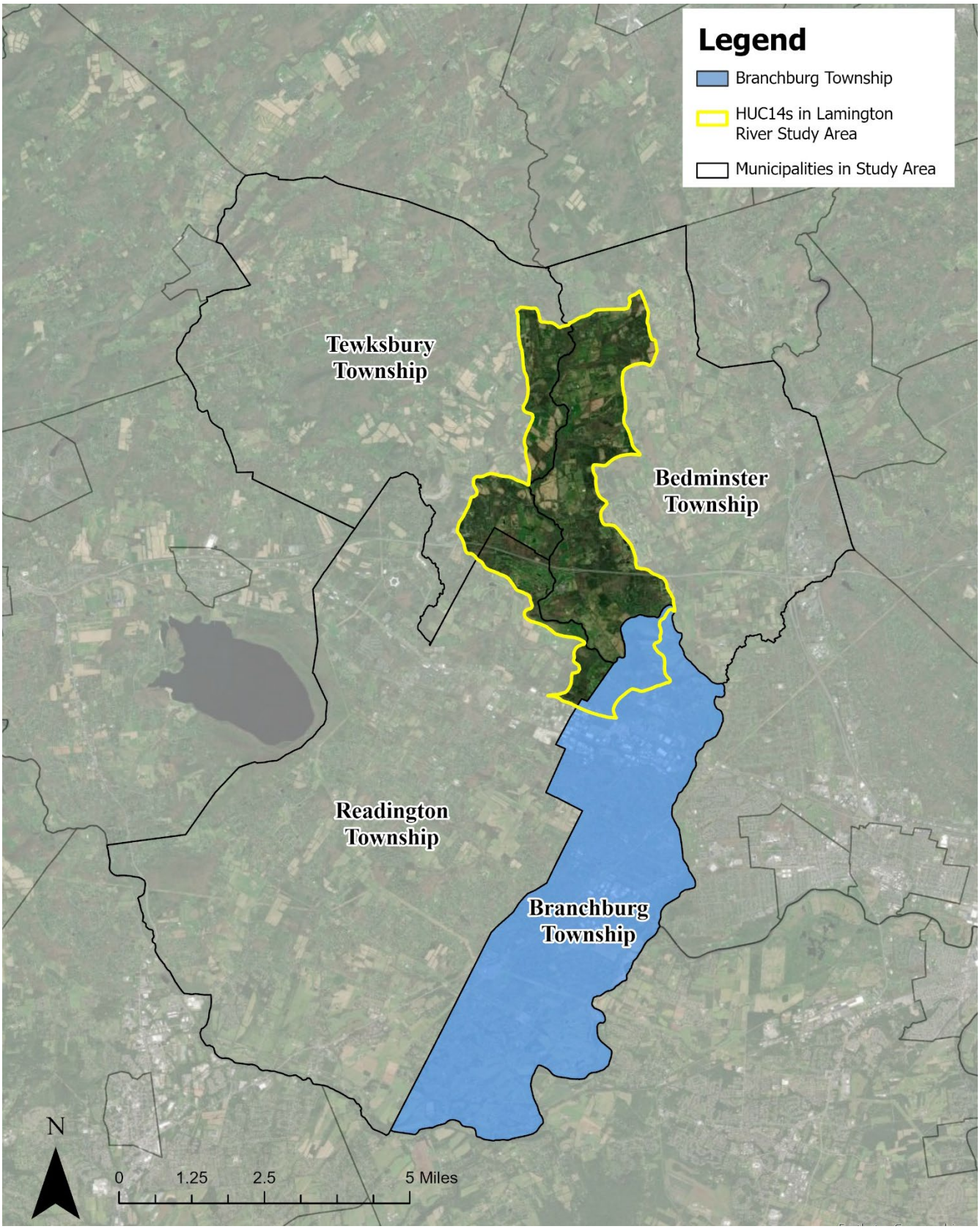

Figure 1: Municipalities in the Study Area

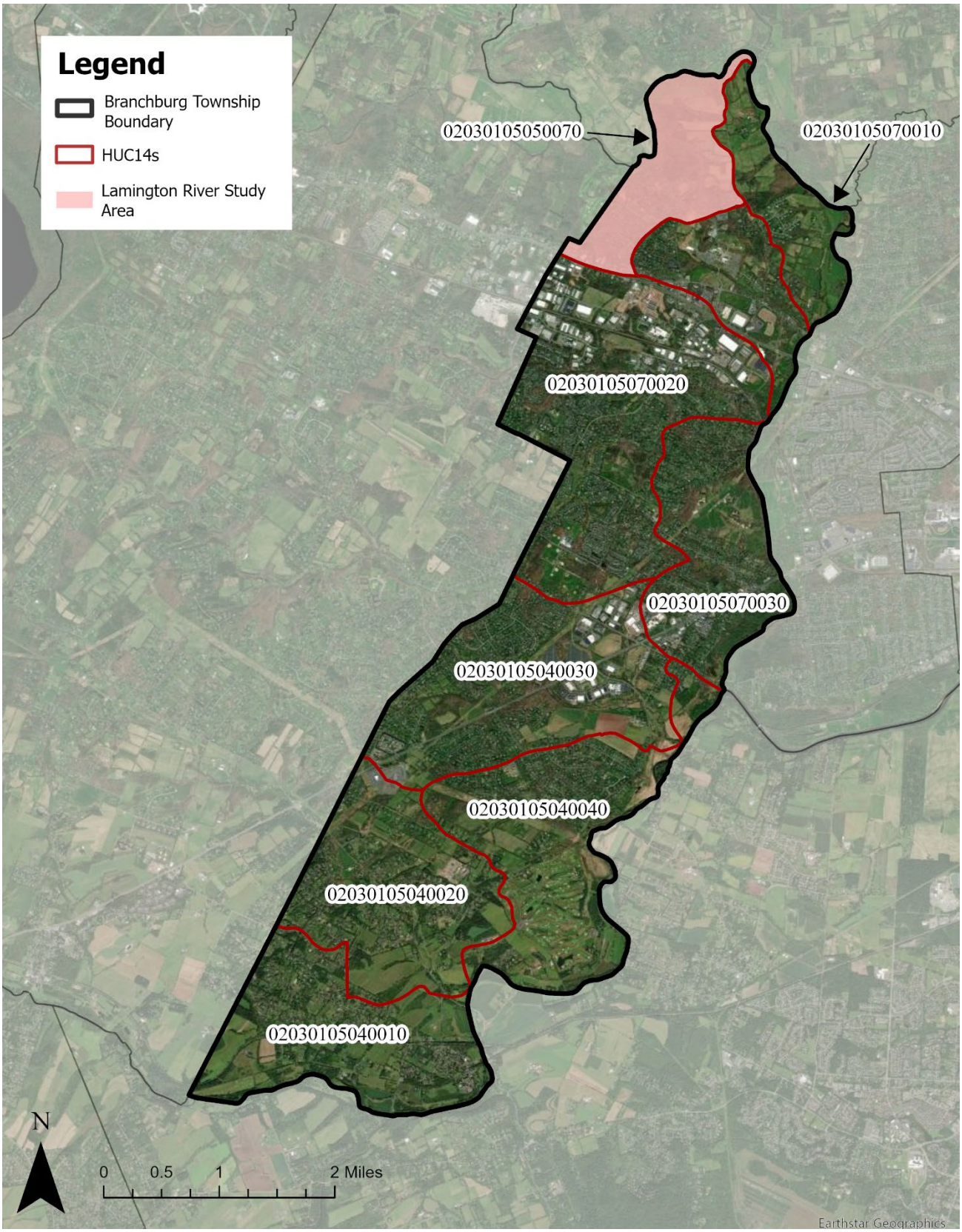

Figure 2: Portions of eight HUC14s are in Branchburg Township

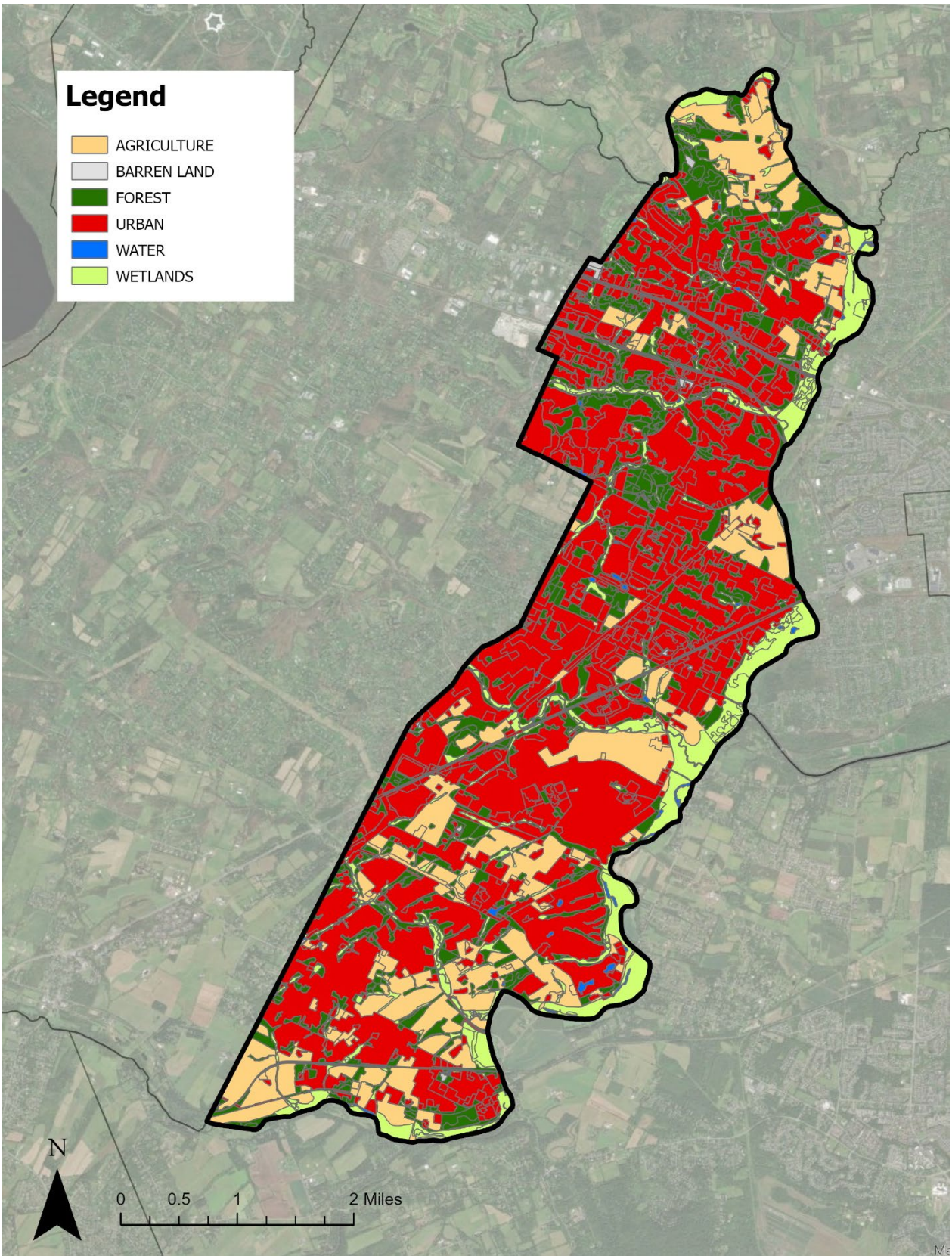

Figure 3: Land Use in Branchburg Township

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

Land Use	Area (acres)	TP Load (lbs/yr)	TN Load (lbs/yr)	TSS Load (lbs/yr)
02030105040010				
Agriculture	454.6	591.0	4,546.1	136,382.5
Barren Land	1.6	0.8	8.2	98.6
Forest	250.5	25.1	751.6	10,021.3
Urban	650.1	910.1	9,751.5	91,014.1
Water	35.6	3.6	106.7	1,422.7
Wetlands	167.3	16.7	501.8	6,690.1
TOTAL =	**1,559.7**	**1,547.3**	**15,665.9**	**245,629.3**
02030105040020				
Agriculture	421.3	547.6	4,212.7	126,379.8
Barren Land	0.9	0.4	4.5	53.8
Forest	274.5	27.4	823.5	10,979.7
Urban	776.0	1,086.4	11,639.5	108,635.2
Water	15.6	1.6	46.8	623.5
Wetlands	101.4	10.1	304.1	4,054.4
TOTAL =	**1,589.6**	**1,673.6**	**17,031.0**	**250,726.5**
02030105040030				
Agriculture	322.0	418.6	3,220.3	96,608.5
Barren Land	2.2	1.1	11.0	131.9
Forest	238.4	23.8	715.1	9,535.0
Urban	1,222.4	1,711.4	18,336.0	171,136.3
Water	16.6	1.7	49.8	664.3
Wetlands	141.1	14.1	423.4	5,644.9
TOTAL =	**1,942.7**	**2,170.7**	**22,755.6**	**283,720.9**
02030105040040				
Agriculture	318.5	414.1	3,185.0	95,550.0
Barren Land	1.0	0.5	5.2	62.9
Forest	215.5	21.6	646.6	8,621.4
Urban	921.6	1,290.2	13,823.5	129,018.9
Water	66.8	6.7	200.5	2,673.7
Wetlands	309.3	30.9	927.8	12,370.4
TOTAL =	**1,832.7**	**1,763.9**	**18,788.6**	**248,297.3**
02030105050070				
Agriculture	160.7	208.9	1,607.1	48,214.5
Barren Land	12.7	6.4	63.7	764.9
Forest	262.1	26.2	786.4	10,484.9
Urban	284.7	398.6	4,270.4	39,857.4
Water	13.6	1.4	40.8	544.6
Wetlands	68.2	6.8	204.5	2,726.9
TOTAL =	**802.1**	**648.3**	**6,973.1**	**102,593.2**

02030105070010				
Agriculture	276.1	359.0	2,761.3	82,838.8
Barren Land	1.2	0.6	5.8	69.1
Forest	120.4	12.0	361.1	4,814.5
Urban	110.5	154.7	1,657.5	15,469.6
Water	32.5	3.3	97.6	1,301.7
Wetlands	126.1	12.6	378.3	5,044.5
TOTAL =	**666.8**	**542.1**	**5,261.6**	**109,538.3**
02030105070020				
Agriculture	73.8	95.9	737.8	22,133.8
Barren Land	3.5	1.8	17.6	211.6
Forest	632.8	63.3	1,898.5	25,313.4
Urban	1,704.2	2,385.9	25,563.6	238,593.9
Water	20.3	2.0	60.8	810.9
Wetlands	130.4	13.0	391.1	5,214.3
TOTAL =	**2,565.0**	**2,562.0**	**28,669.5**	**292,277.9**
02030105070030				
Agriculture	191.7	249.2	1,916.7	57,501.1
Barren Land	0.8	0.4	4.1	49.2
Forest	349.7	35.0	1,049.1	13,988.0
Urban	1,205.5	1,687.7	18,082.6	168,770.7
Water	34.3	3.4	103.0	1,373.7
Wetlands	229.2	22.9	687.6	9,167.7
TOTAL =	**2,011.2**	**1,998.6**	**21,843.1**	**250,850.6**
All HUCs				
Agriculture	2,218.7	2,884.3	22,187.0	665,609.1
Barren Land	24.0	12.0	120.2	1,441.9
Forest	2,344.0	234.4	7,031.9	93,758.3
Urban	6,875.0	9,625.0	103,124.6	962,496.4
Water	235.4	23.5	706.1	9,415.1
Wetlands	1,272.8	127.3	3,818.5	50,913.3
TOTAL =	**12,969.9**	**12,906.5**	**136,988.2**	**1,783,634.0**

Impervious Cover Analysis

NJDEP's Open Data impervious surface GIS data layer depicts surfaces throughout Branchburg 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 Branchburg Township. Based upon the NJDEP impervious surface data, Branchburg Township has impervious cover totaling 16.8%. Table 3 shows impervious cover for each HUC14. The extent of the impervious cover in Branchburg 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, Branchburg Township's impervious cover percentage would suggest that its waterways are primarily impacted and most likely contributing to not meeting the state's surface water quality standards.

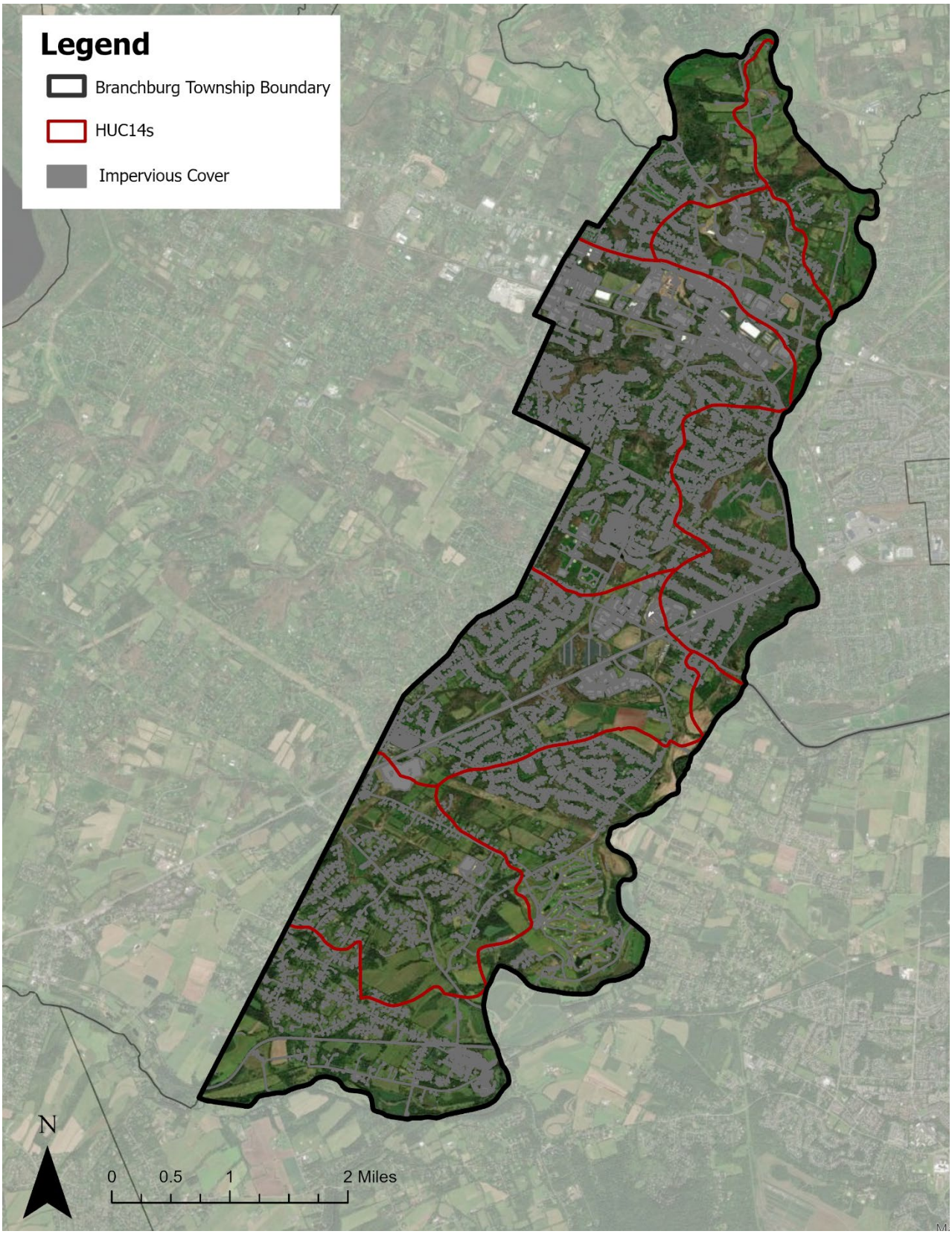

Figure 4: Impervious Cover in Branchburg Township

Table 3: Impervious Cover Analysis by HUC14 for Branchburg Township

Class	Area (acres)	HUC Impervious Cover (%)
02030105040010		
Building	26.86	
Other	80.27	
Road	48.49	
TOTAL =	**155.6**	**10.0%**
02030105040020		
Building	24.54	
Other	94.81	
Road	57.90	
TOTAL =	**177.3**	**11.2%**
02030105040030		
Building	85.64	
Other	196.21	
Road	132.51	
TOTAL =	**414.4**	**21.3%**
02030105040040		
Building	35.25	
Other	90.49	
Road	57.18	
TOTAL =	**182.9**	**10.0%**
02030105050070		
Building	16.22	
Other	43.32	
Road	26.90	
TOTAL =	**86.5**	**10.8%**
02030105070010		
Building	4.52	
Other	7.98	
Road	9.49	
TOTAL =	**22.0**	**3.3%**
02030105070020		
Building	189.87	
Other	351.34	
Road	165.86	
TOTAL =	**707.1**	**27.6%**
02030105070030		
Building	89.09	
Other	214.67	
Road	129.73	
TOTAL =	**433.5**	**21.6%**
All HUCs		

Building	472.02	
Other	1079.10	
Road	628.06	
TOTAL =	**2,179.2**	**16.8%**

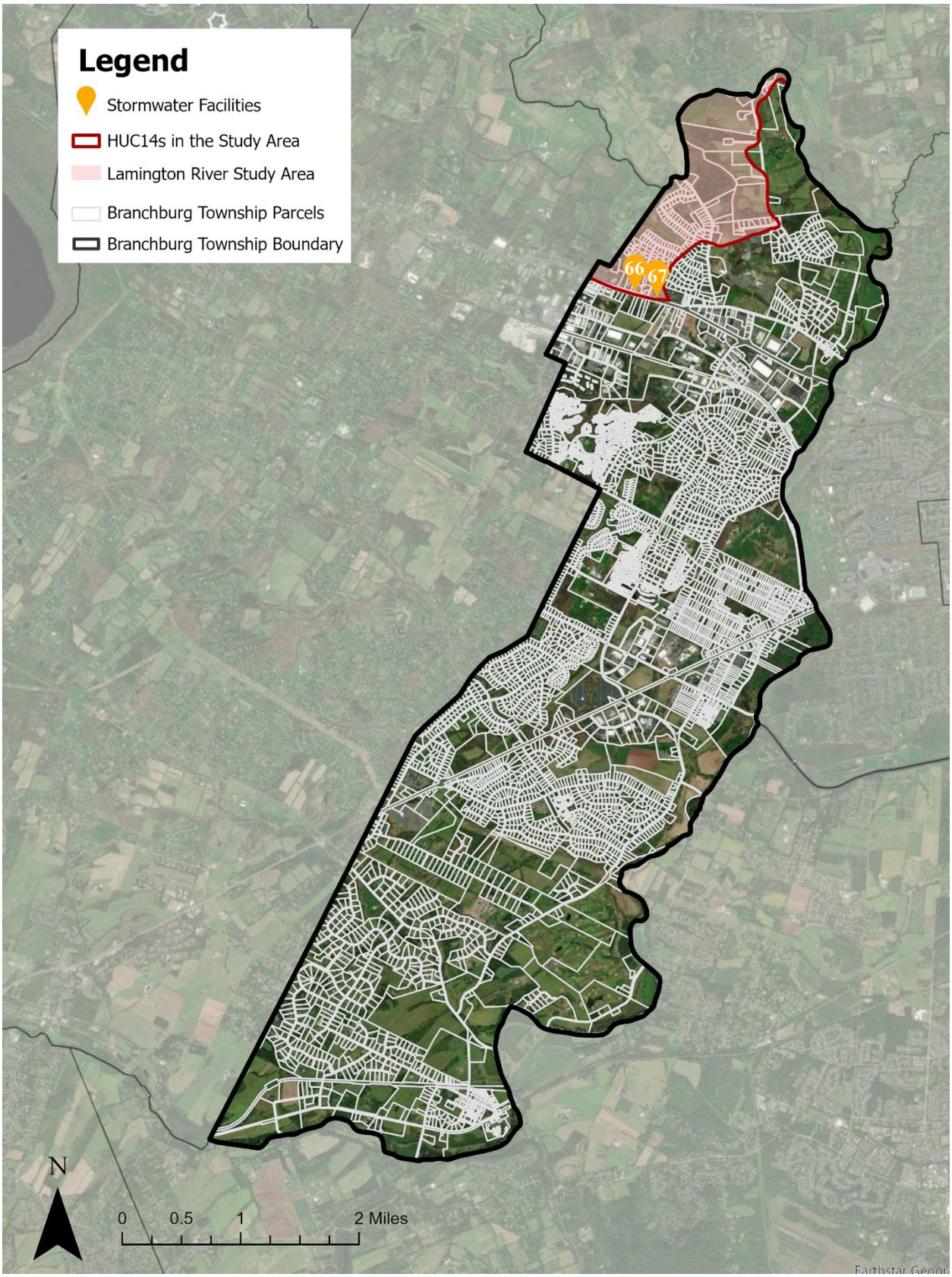

Figure 5: Stormwater Facilities in the Study Area of Branchburg Township

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

Lamington River Study Area		
ID	**Address**	**Type**
66	3380 Rt 22	N
67	3322 US-22	D

"D" = Detention, "N" = Naturalized

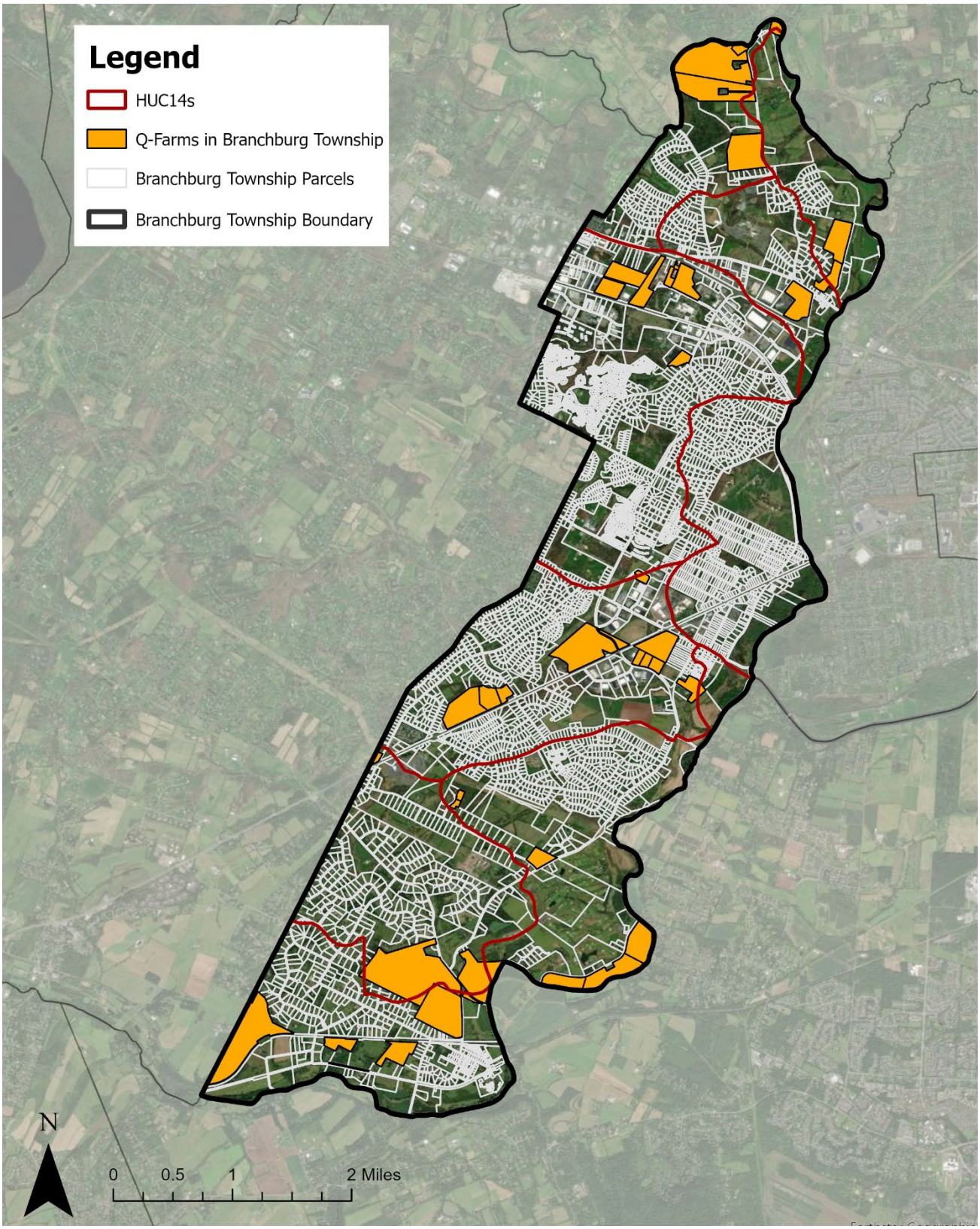

Figure 6: Q-Farm Parcels in Branchburg Township

Table 5: Q-Farm Parcels in Branchburg Township

Block	Lot	Q-Code	Prop Class	Location
1	2	QFARM	3B	490 Burnt Mill Rd-Off
3	3	QFARM	3B	391 Burnt Mill Rd
3	4	QFARM	3B	371 Burnt Mill Rd
3	6	QFARM	3B	363 Burnt Mill Rd
3	9	QFARM	3B	301 Burnt Mill Rd
4	2	QFARM	3B	Vanderveer Ave
4	13	QFARM		Vanderveer Ave
7	4	QFARM	3B	3020 Rt 22
9	15	QFARM	3B	Meister Ave
9	16	QFARM		Us Hwy 22
9	21	QFARM		Us Hwy 22
9	24	QFARM		Us Hwy 22
9.01	2	QFARM		Meister Ave
13.01	3	QFARM		Woodfern Rd
17	5	QFARM		Readington Road
58.01	4	QFARM	3B	255 Evans Way
61	14	QFARM	3B	1200 Route 202
61.04	2	QFARM	3B	1150 Route 202
67	2	QFARM	3B	2049 South Branch Rd
68.05	1	QFARM		Old York Rd
68.05	3	QFARM		Chubb Way
68.05	4	QFARM		Chubb Way
68.05	5	QFARM		Chubb Way
70	18	QFARM	3B	1324-1344 Rt 202
70	24	QFARM	3B	1300-1312 Rt 202/Holl Brk
70	24.01	QFARM	3B	1314-1322 Rt 202
73.01	2	QFARM	3B	1390 Rt 202
76	30.05	QFARM		Acorn Lane
76	30.06	QFARM		Acorn Lane
76	36	QFARM	3B	600-608 Case Rd
77	36.04	QFARM	3B	2365 South Branch Rd
77.02	36.05	QFARM	3B	458 Pleasant Run Rd
78	1	QFARM	3B	1000-1030 Opie Rd
78	2.01	QFARM	3B	1044-1056 Opie Rd
78	3	QFARM	3B	1058-1090 Opie Rd
81	7	QFARM	3B	Pleasant Run Rd
81	22	QFARM	3B	267-469 Pleasant Run Rd
82.01	23	QFARM	3B	Rear Of W0odfern Rd
88	4	QFARM		Woodfern Rd
88	7	QFARM	3B	Woodfern Rd

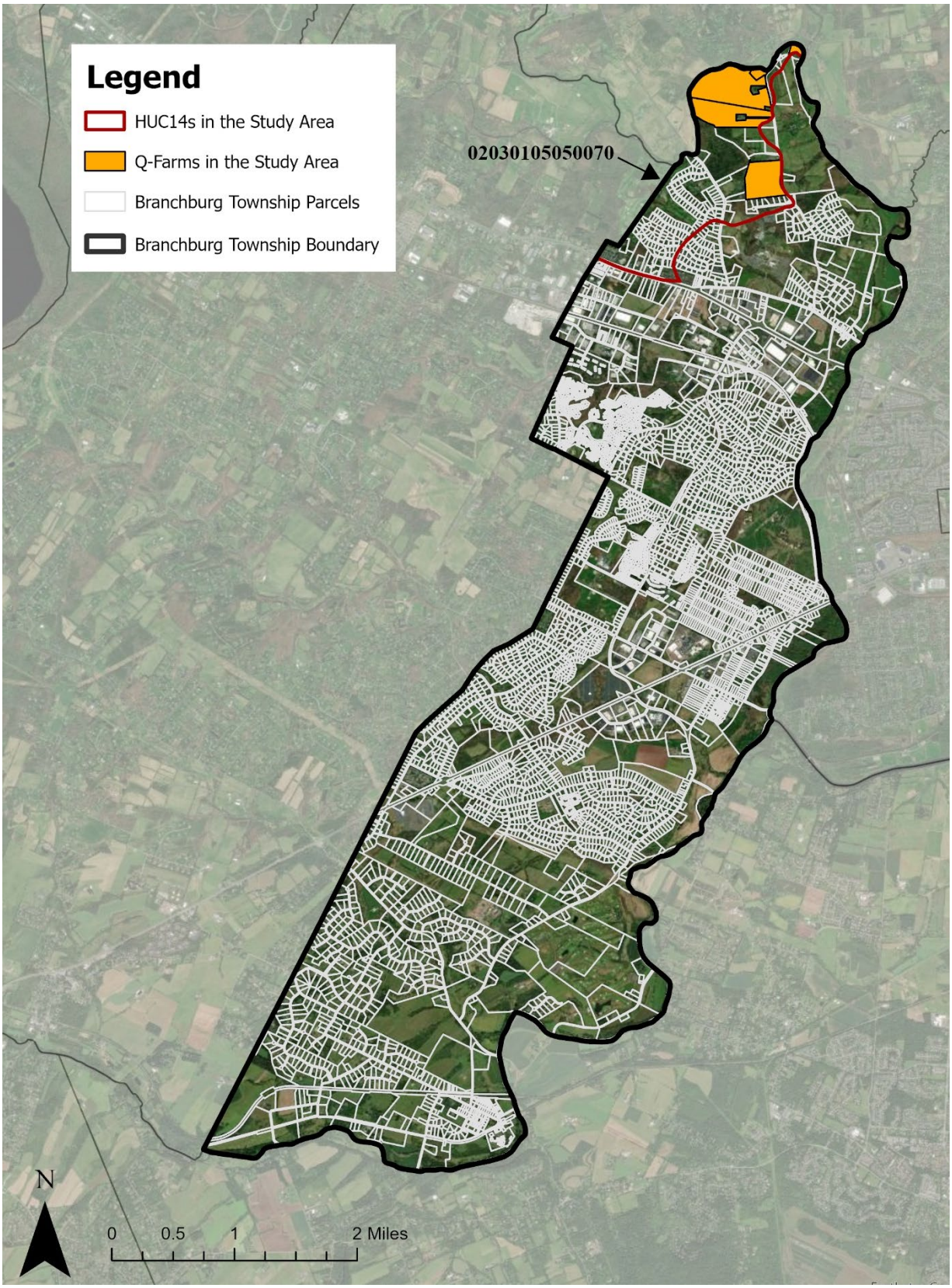

Figure 7: Q-Farm Parcels in the Study Area of Branchburg Township

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

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3	6	QFARM	3B	363 Burnt Mill Rd
3	9	QFARM	3B	301 Burnt Mill Rd

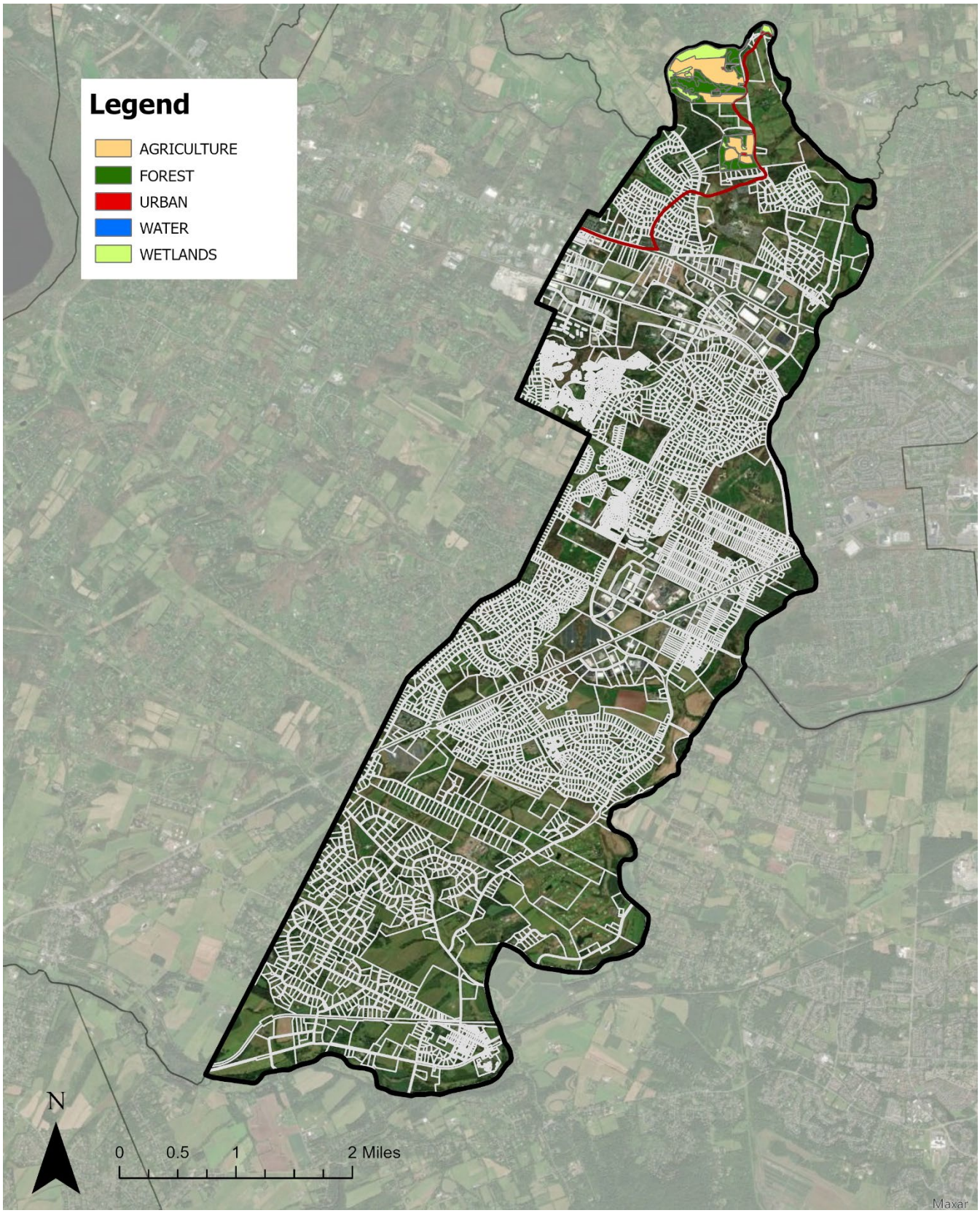


Figure 8: Land Use on Q-Farm Parcels in the Study Area of Branchburg Township

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

Land Use	Area (acres)
Agriculture	94.8
Barren Land	0.0
Forest	86.6
Urban	2.5
Water	1.4
Wetlands	42.5
Total:	**227.9**

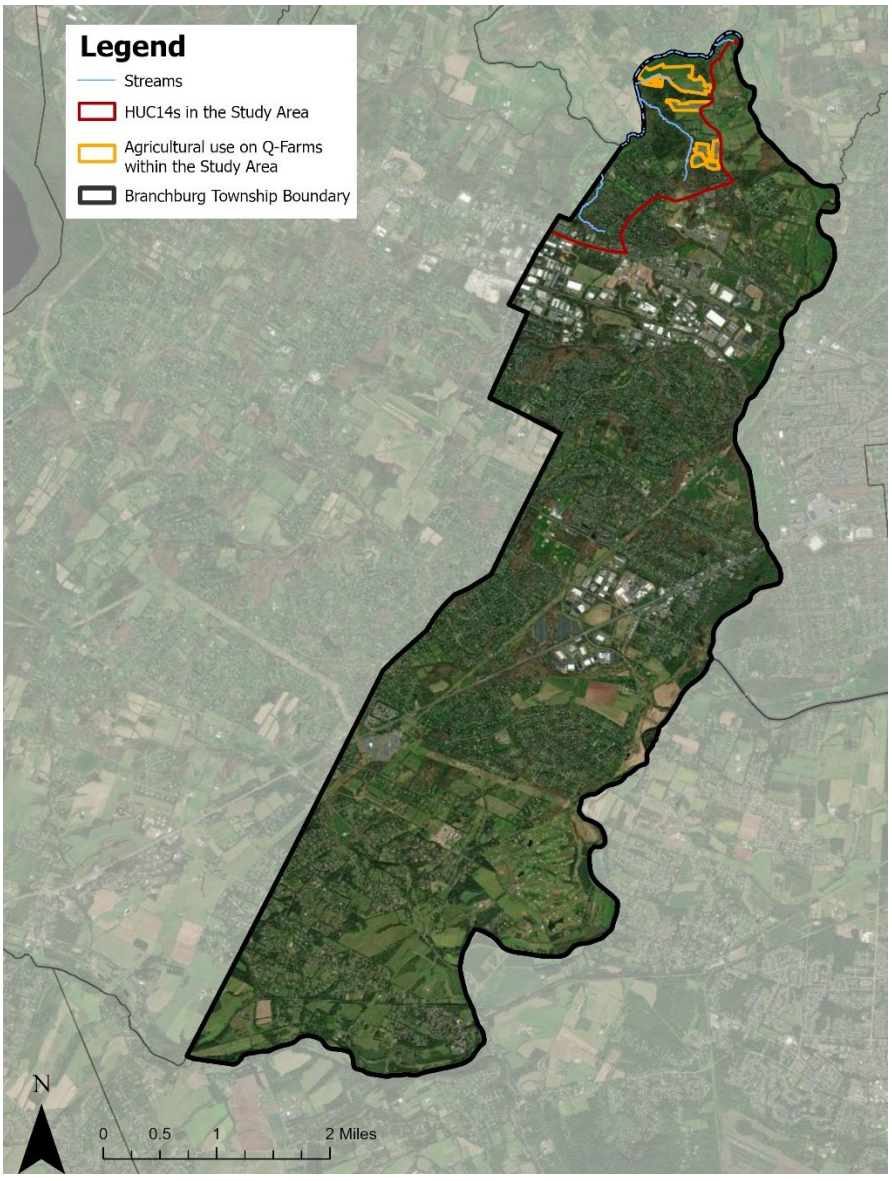


Figure 9: Aerial View of Agricultural Use on Q-Farm Parcels within the Study Area of Branchburg Township

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

Lamington River Study Area								
Block	**Lot**	**Q-Farm Code**	**Cover Crop**	**Enhanced Stream Buffer**	**Impervious Cover Mgt.**	**Rainwater Harvesting**	**Livestock Exclusion**	**Manure Mgt.**
3	4	QFARM	X	X				

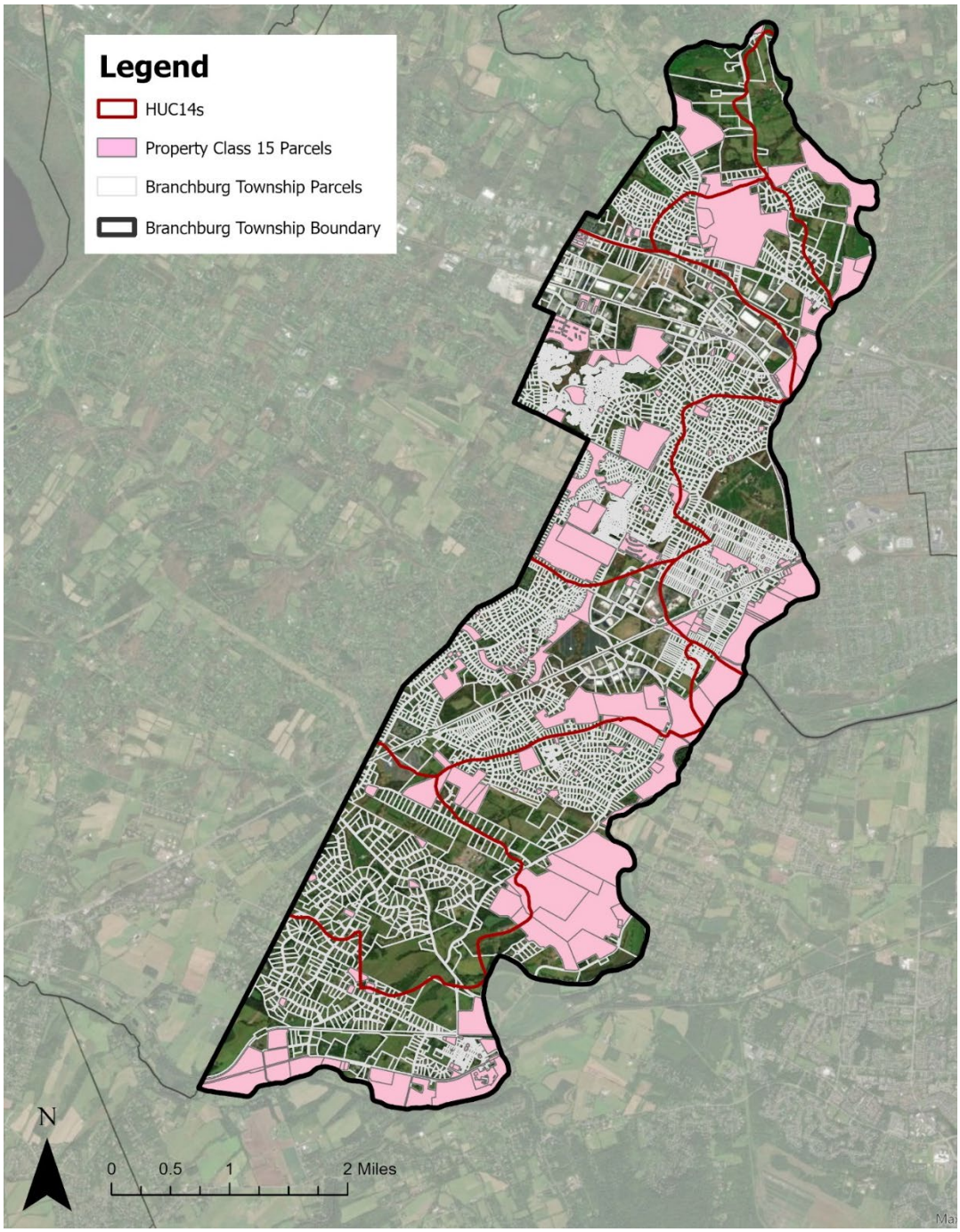


Figure 10: Property Class 15 Parcels in Branchburg Township

Table 9: Property Class 15 Parcels in Branchburg Township

Block	Lot	Prop Class	Location	Facility Type
3	13	15A	102 Lamington Rd	Admin Off/Conf/Resid
3	18	15A	74 Lamington Rd	Admin Off/Conf/Resid
3	18.01	15A	118 Lamington Rd	College
20.07	22	15A	Harlan School Rd	Vacant Land
30	4	15A	Harlan School Rd	Vacant Land
36	1	15A	136 Cedar Grove Rd	Schools
47	34	15A	220-240 Baird Rd	Schools
57	32	15A	580 Old York Rd	Schools
76.1	10.01	15A	470 Whiton Rd	School
17	4	15B	94 Readington Rd	Schools
2	10	15C	Vanderveer Ave - off of	Park
2	12.01	15C	230 Vanderveer Ave	Vacant Land
2	900	15C	400 Vanderveer Ave	Vacant Land
3	16	15C	210 Lamington Rd	Vacant Land
3	19	15C	18 Lamington Rd	Residence/Vacant
3	49.01	15C	Village Way - Rear	Roads
5.11	10	15C	51 France Dr	Vacant Land
8	13	15C	1020 Rt 28	Vacant Land
11	1	15C	Station Rd	Vacant Land
11	2	15C	Station Rd	Park
11	2.01	15C	Station Rd & River Rd	Park
11	3	15C	River Rd	Park
11	4	15C	River Rd	Vacant Land
12	1	15C	440 River Rd	Park
13	2.01	15C	Readington Rd & Railroad	Vacant Land
13	2.02	15C	Readington Rd & Railroad	Vacant Land
13.01	1	15C	Woodfern Rd	Vacant Land
13.01	2	15C	Woodfern Rd.	Vacant Land
13.01	4	15C	Woodfern Rd	Vacant Land
13.01	5	15C	Main St	Vacant Land
17	13	15C	101 Leslie Ln	Farm
17.11	905	15C	905 Narraganset Dr.	Park
17.13	12.01	15C	240 Harlan School	Pool
18	5	15C	Station Rd	Vacant Land
20.06	22	15C	474 West County Dr	Vacant Land
20.08	2	15C	34 Stony Brook Rd	Residence
20.14	11	15C	Shadyside Ct	Vacant Land
20.19	9	15C	24 Shale Hill Rd	Vacant Land
41.01	3	15C	River Rd	Vacant Land
41.01	4	15C	River Rd	Vacant Land
41.01	5	15C	River Rd	Pumping Station
41.01	7	15C	River Rd	Vacant Land
41.01	8.01	15C	River Rd	Park
41.01	8.02	15C	River Rd	Park
44	900	15C	Timbers/Woodgate 1&2	Vacant Land
44	901	15C	Timbers/Woodgate I	Vacant Land

44.01	900	15C	Timbers/Woodgate I	Vacant Land
47	21	15C	37 Mary Lynn Ln	Detention Basin
47	900	15C	Staats Farm Sect I & II	Vacant Land
47	904	15C	Champions Run/Sect I	Vacant Land
47.07	900	15C	Staats Farm Sect I & II	Vacant Land
47.08	900	15C	Champions Run/Sect I	Vacant Land
57	17	15C	34 Kenbury Rd	Office Bldg
57	18	15C	34 Kenbury Rd	Garage
57	31	15C	1077 Rt 202&590 Old York	Polic Sta & Mun Bld
59	24	15C	235 Baird Rd	Park
59	25.01	15C	Stony Brook Rd	Vacant Land
60	900	15C	Old York & Dreahook	Vacant Land
60.02	21	15C	Holland Brook Rd	Vacant Land
61	11	15C	Rt 202	Vacant Land
61	36	15C	Rt 202 & Evergreen Dr	Vacant Land
61	900	15C	Christian Ln	Vacant Land
61	901	15C	Woodside Ln & Colonial Ct	Vacant Land
61	902	15C	West County Dr	Vacant Land
61.02	4	15C	Holland Brook Rd	Vacant Land
61.02	35	15C	Evergreen Dr	Vacant Land
61.04	1.03	15C	671 Old York Rd	Historic Site
70	19	15C	Old York Rd	Vacant Land
76	29.01	15C	650 Case Rd	Farm
76	31	15C	Whiton Rd	Vacant Land
76	32	15C	Case Rd	Vacant Land
76	34.02	15C	Case Rd	Vacant Land
76.01	22	15C	South Branch Rd	Vacant Land
76.04	31	15C	412 Whiton Rd	Drainage Basin
76.07	16	15C	1104 Van Arsdale Dr	Vacant Lot
77	23	15C	2277 South Branch Rd	Office Building
77	24	15C	2283-2289 South Branch Rd	Park
77	25	15C	1005 Opie Rd	Park
77	27	15C	1001 Opie Rd	Residence
77	27.02	15C	1013-1025 Opie Rd	Park
77	28	15C	2301-2303 South Branch Rd	Club House&Lerng Cnt
77	29.01	15C	2325 South Branch Rd	Vacant Land
77	37.01	15C	Opie Rd	Farm
77	37.14	15C	2331 South Branch Rd	Vacant Land
77	38.01	15C	1035-1055 Opie Rd	Vacant Land
77.02	39	15C	410-480 Pleasant Run Rd	Farm
81	26	15C	108 Sturbridge Rd	Vacant Land
85	3.01	15C	Woodfern Rd.	Vacant Land
85	3.02	15C	Woodfern Rd	Vacant Land
86	1	15C	271-279 Woodfern Rd	Vacant Land
87	2	15C	254-266 Woodfern Rd	Vacant Land
89	1	15C	268-278 Woodfern Rd	Vacant Land
89	2	15C	210-240 Woodfern Rd	Vacant Land
89	3	15C	198-208 Woodfern Rd	Green Acres
89	4	15C	196 Woodfern Rd	Green Acres
89	5	15C	192 Woodfern Rd	Green Acres

89	7.01	15C	162-178 Woodfern Rd	Vacant
89	7.03	15C	162-178 Woodfern Rd	Vacant
90	7	15C	Woodfern Rd	Park
90	7.01	15C	Woodfern Rd	Sewerage Disposal
90	9	15C	415 Blackpoint Rd	Park
90.01	2	15C	110 Woodfern Rd Unit B	Comm/Indus Purpose
90.01	3	15C	110 Woodfern Rd Unit C	Comm/Indus Purpose
90.01	5.011	15C	110 Woodfern Rd Unit E1a	Comm/Indus Purpose
90.01	5.012	15C	110 Woodfern Rd Unit E1b	Comm/Indus Purpose
90.01	5.013	15C	110 Woodfern Rd Unit E1c	Comm/Indus Purpose
90.01	5.014	15C	110 Woodfern Rd Unit E1d	Comm/Indus Purpose
90.01	5.015	15C	110 Woodfern Rd Unit E1e	Comm/Indus Purpose
90.01	5.016	15C	110 Woodfern Rd Unit E1f	Comm/Indus Purpose
90.01	5.021	15C	110 Woodfern Rd Unit E2a	Comm/Indus Purpose
90.01	5.022	15C	110 Woodfern Rd Unit E2b	Comm/Indus Purpose
90.01	5.023	15C	110 Woodfern Rd Unit E2c	Comm/Indus Purpose
90.01	5.024	15C	110 Woodfern Rd Unit E2d	Comm/Indus Purpose
90.01	6.01	15C	110 Woodfern Rd Unit F1	Comm/Indus Purpose
90.01	6.02	15C	110 Woodfern Rd Unit F2	Comm/Indus Purpose
90.01	7.01	15C	110 Woodfern Rd Unit G1	Comm/Indus Purpose
90.01	7.02	15C	110 Woodfern Rd Unit G2	Comm/Indus Purpose
90.01	11.011	15C	110 Woodfern Rd-K1a,2a-H	Comm/Indus Purpose
90.01	11.012	15C	110 Woodfern Rd Unit K1b	Comm/Indus Purpose
90.01	11.013	15C	110 Woodfern Rd Unit K1c	Comm/Indus Purpose
90.01	11.014	15C	110 Woodfern Rd Unit K1d	Comm/Indus Purpose
90.01	11.015	15C	110 Woodfern Rd Unit K1e	Comm/Indus Purpose
90.01	11.016	15C	110 Woodfern Rd Unit K1f	Comm/Indus Purpose
90.01	12	15C	110 Woodfern Rd Unit L	Comm/Indus Purpose
90.01	13	15C	110 Woodfern Rd Unit M	Comm/Indus Purpose
90.01	15	15C	110 Woodfern Rd Unit O	Comm/Indus Purpose
90.01	17	15C	110 Woodfern Rd Unit Q	Comm/Indus Purpose
91	21	15C	Leslie Ave	Vacant Land
92	3	15C	330 Chester Ave	Barn
93	1.01	15C	614 Marshall St	Park
93	8	15C	Marshall St	Vacant Land
97	5	15C	412 Olive St	Community Center
98	1	15C	423-431 Olive St	Vacant Land
5	28	15D	29 Lamington Rd	Church
9	31	15D	3201 Rt 22	Humane Society
43	3	15D	19 Cedar Grove Rd	Residence
44	28	15D	113 River Rd	Parking Area
48	11	15D	122 Robbins Rd	Residence
59	16	15D	423 Readington Rd	Residence
60.02	11	15D	94 Windy Willow Way	Residence
70	24.02	15D	1941 Holland Brk/Rt 202	Worship Complex
71.02	2	15D	890 Old York Rd	Residence
71.02	15	15D	815 Parsonage Hill Dr	Restaurant
79	2.03	15D	679 Case Rd	Residence
81.01	1.03	15D	363 Pleasant Run Rd	Residence
96	2	15D	339 Maple Ave	Pond
97	12	15D	301 Maple Ave	Church
97	19	15D	315 Maple Ave	Parsonage
100	1	15D	107 Elm St	Vacant Land

1	1	15F	480 Burnt Mill Rd	Vacant Land
3	1	15F	River - Along The	Vacant Land
3	21	15F	1171 Rt 28	Club House
5.07	24	15F	129 Howell Dr	Disabled Veteran
5.11	6	15F	Rt 22	Common Element
9	1.01	15F	3461 Rt 22	Common Element
9	2	15F	County Line Rd	Common Element
17.01	20	15F	191 Industrial Pky	Common Element
17.01	22.03	15F	161 Industrial Pky	Common Element
17.08	9	15F	54 Choctaw Ridge Rd	Widow Of Serviceman
17.08	10	15F	56 Choctaw Ridge Rd	Disabled Vet
17.09	2	15F	35 Choctaw Ridge Rd	Disabled Vet
17.11	12.11	15F	240 Readington Rd	Disabled Vet
17.13	228	15F	21 Apache Way	Widow Of Serviceman
17.15	900	15F	Magnolia Ln	Common Elements
18	2.01	15F	48 Station Rd	Disabled Vet
19	33	15F	4 Darcy Dr	Disabled Vet
20.01	1	15F	159 Readington Rd	Disabled Vet
20.12	2	15F	215 Bald Eagle Dr	Residence
20.16	10	15F	300 Swan Ct	Disabled Vet
38	12.01	15F	33 Preston Dr	Disabled Veteran
38	32	15F	84 Cedar Grove Rd	Disabled Vet
40	38	15F	12 Nassau Ct	Disabled Veteran
41	3.01	15F	River Rd - Off Of	Reservoir
41	8.01	15F	Mill Ln - Rear Near River	Reservoir
41.01	9.01	15F	River Rd - Off Of	Reservoir
42	6	15F	River Rd	Reservoir
42	8.01	15F	Rt 202	Reservoir
42	10	15F	902 Rt 202	Reservoir
44	29	15F	113 River Rd	Squad Building
46.04	901	15F	2000 Breckenridge Dr	Common Elements
47.07	1	15F	260 Baird Rd	Disabled Veteran
47.07	28	15F	4 Champions Cir	Disabled Vet
55	1	15F	921 Rt 202	Reservoir
55	2.01	15F	Rt 202	Reservoir
55	2.02	15F	Rt 202	Reservoir
55	6.01	15F	Rt 202	Reservoir
55	9.01	15F	North Branch River Rd	Reservoir
55	11.03	15F	North Branch River Rd	Reservoir
55	13	15F	North Branch River Rd	Reservoir
55	13.01	15F	78 North Branch River Rd	Reservoir
55	14	15F	64 North Branch River Rd	Reservoir
55	15	15F	60 North Branch River Rd	Reservoir
55	16	15F	North Branch River Rd	Reservoir
58	18	15F	63 Robbins Rd	Disabled Vet
58	28.03	15F	610 Old York Rd	Firehouse
58.01	3	15F	221 Evans Way	Common Elements
61.02	23	15F	448 Brookview Ct	Disabled Veteran
67	2.03	15F	South Branch Rd	Reservoir
67	3	15F	529 Old York Rd	Reservior
76.03	7	15F	108 Hill Top Ln	Disabled Vet
76.06	17.01	15F	454 Whiton Rd	Disabled Veteran
76.18	7	15F	1121 Van Arsdale Dr	Disabled Vet

77	1	15F	South Branch Rd	Reservoir
77	2	15F	2205 South Branch Rd	Reservoir
77	11.02	15F	South Branch Rd	Reservoir
77	16	15F	South Branch Rd	Reservoir
79	49	15F	621 Sunrise Way	Disabled Vet
80	9.01	15F	138 Otto Rd	Disabled Veteran
80	53	15F	527 Horizon Way	Disabled Vet
81	10.04	15F	101 Sturbridge Rd	Disabled Veteran
81	32	15F	205 Post Rd	Disabled Vet
82.01	27	15F	98 Briar Way	Disabled Vet
90.01	900	15F	110 Woodfern Rd	Common Element
96	3	15F	333 Maple Ave	Fire House

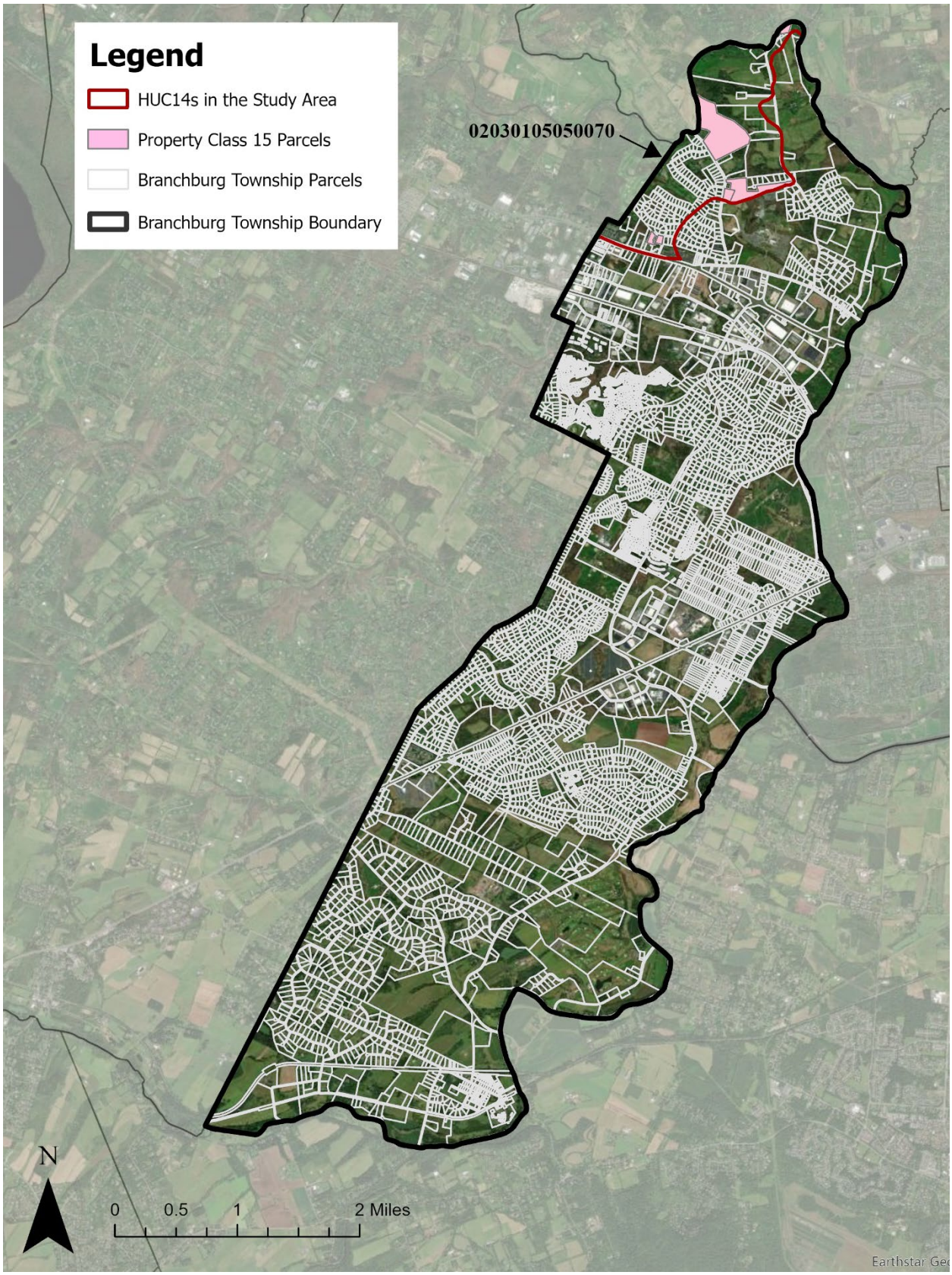


Figure 11: Property Class 15 Parcels in the Study Area of Branchburg Township

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

Block	Lot	Prop Class	Location	Facility Type
3[1]	13	15A	102 Lamington Rd	Admin Off/Conf/Resid
3[1]	18.01	15A	118 Lamington Rd	College
3	16	15C	210 Lamington Rd	Vacant Land
5.11	10	15C	51 France Dr	Vacant Land
1	1	15F	480 Burnt Mill Rd	Vacant Land
3	1	15F	River - Along The	Vacant Land
5.07[1]	24	15F	129 Howell Dr	Disabled Veteran
5.11	6	15F	Rt 22	Common Element

*** No sites that can be retrofitted with green infrastructure were identified within the study area**

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

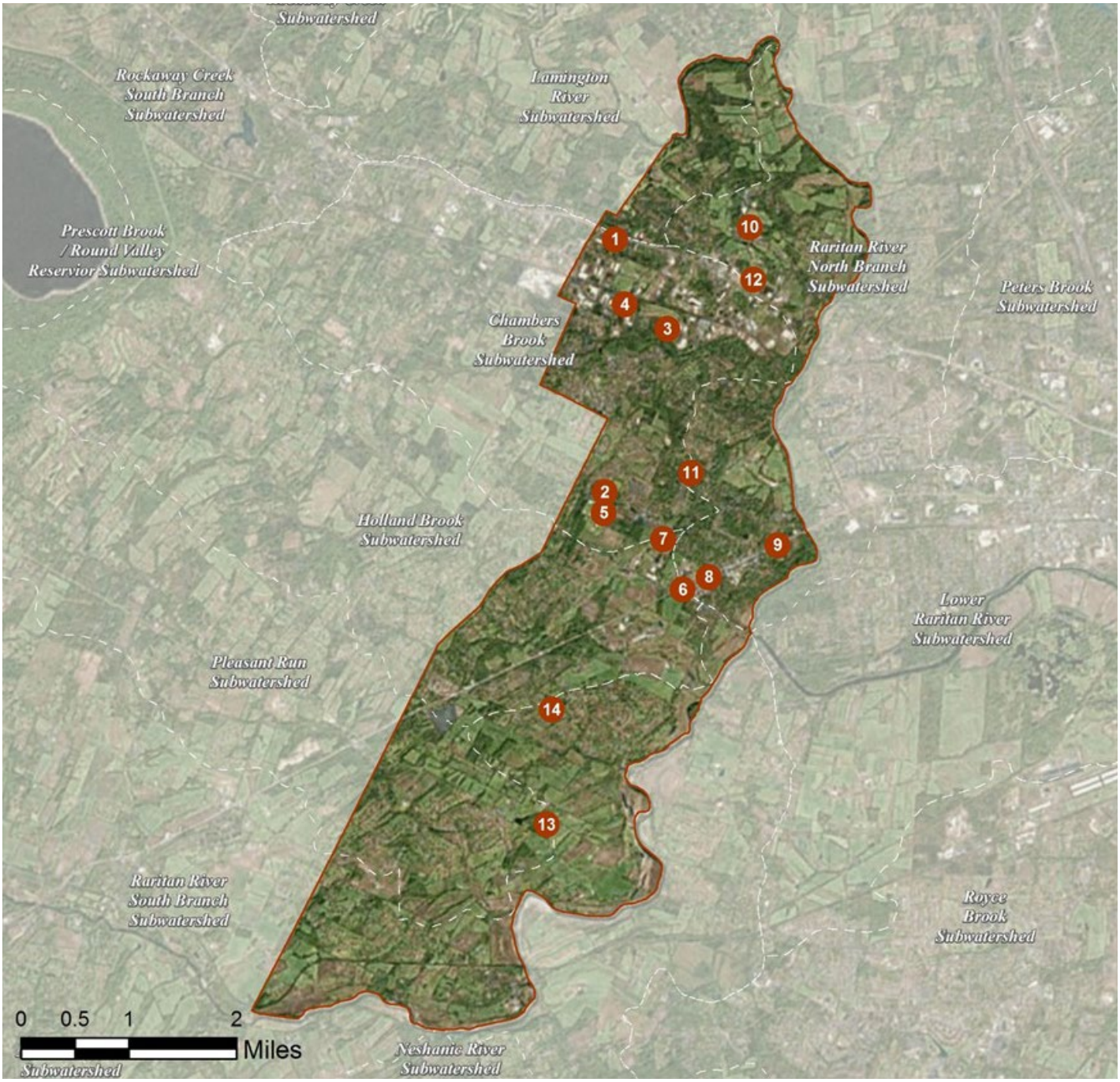


Figure 12: Sites with Green Infrastructure Opportunities in Branchburg Township

BRANCH POINT CHURCH

RAP ID: 1

Subwatershed: Chambers Brook

Site Area: 952,715 sq. ft.

Address: 3421 US 22
Branchburg, NJ 08876

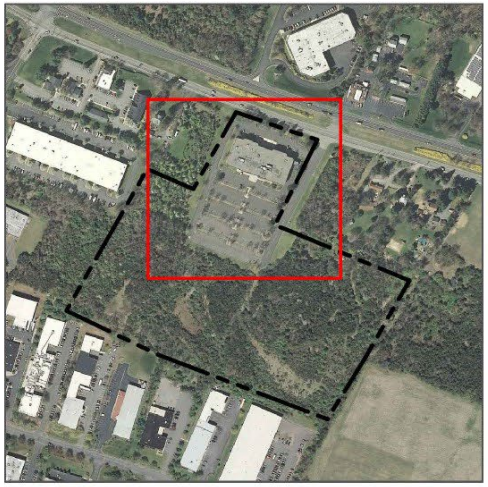
Block and Lot: Block 9, Lot 3.02, 4.01

Parking spots on the south side of the building can be replaced with porous asphalt 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"
22	212,992	10.3	107.6	977.9	0.166	5.84

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 pavements	2.110	353	154,858	5.82	22,000	$550,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Branch Point Church

- pervious pavements
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 50' 100'

BRANCHBURG CENTRAL MIDDLE SCHOOL

RAP ID: 2

Subwatershed: Chambers Brook

Site Area: 1,397,215 sq. ft.

Address: 220 Baird Road
Branchburg, NJ 08876

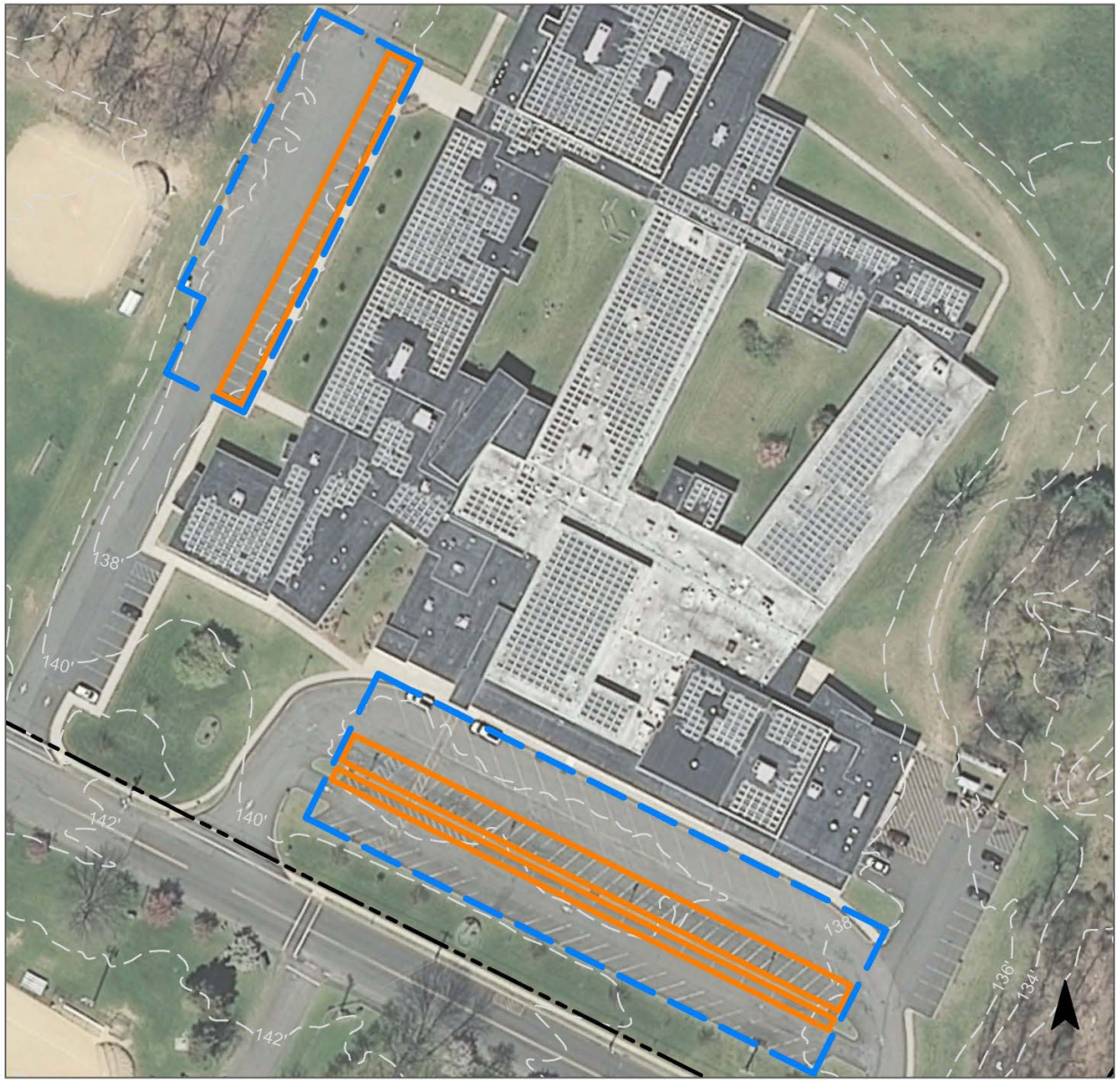
Block and Lot: Block 47, Lot 34

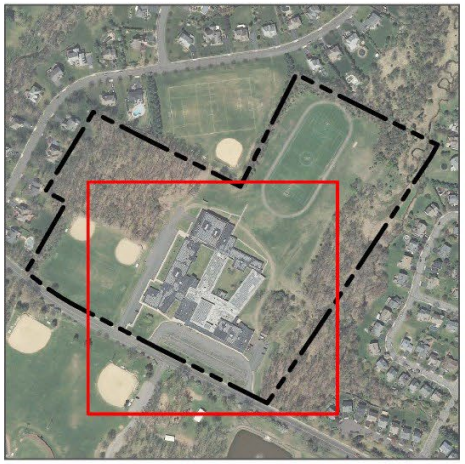
Parking spots on the south and west sides of the building can be replaced with porous asphalt to capture and infiltrate stormwater runoff from the parking lot. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

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"
21	292,484	14.1	147.7	1,342.9	0.228	8.02

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 pavements	1.498	251	109,934	4.13	14,000	$350,000

GREEN INFRASTRUCTURE RECOMMENDATIONS





Branchburg Central Middle School

- pervious pavements
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 50' 100'

THE MIDLAND SCHOOL

RAP ID: 3

Subwatershed: Chambers Brook

Site Area: 2,344,674 sq. ft.

Address: 94 Readington Road
Branchburg, NJ 08876

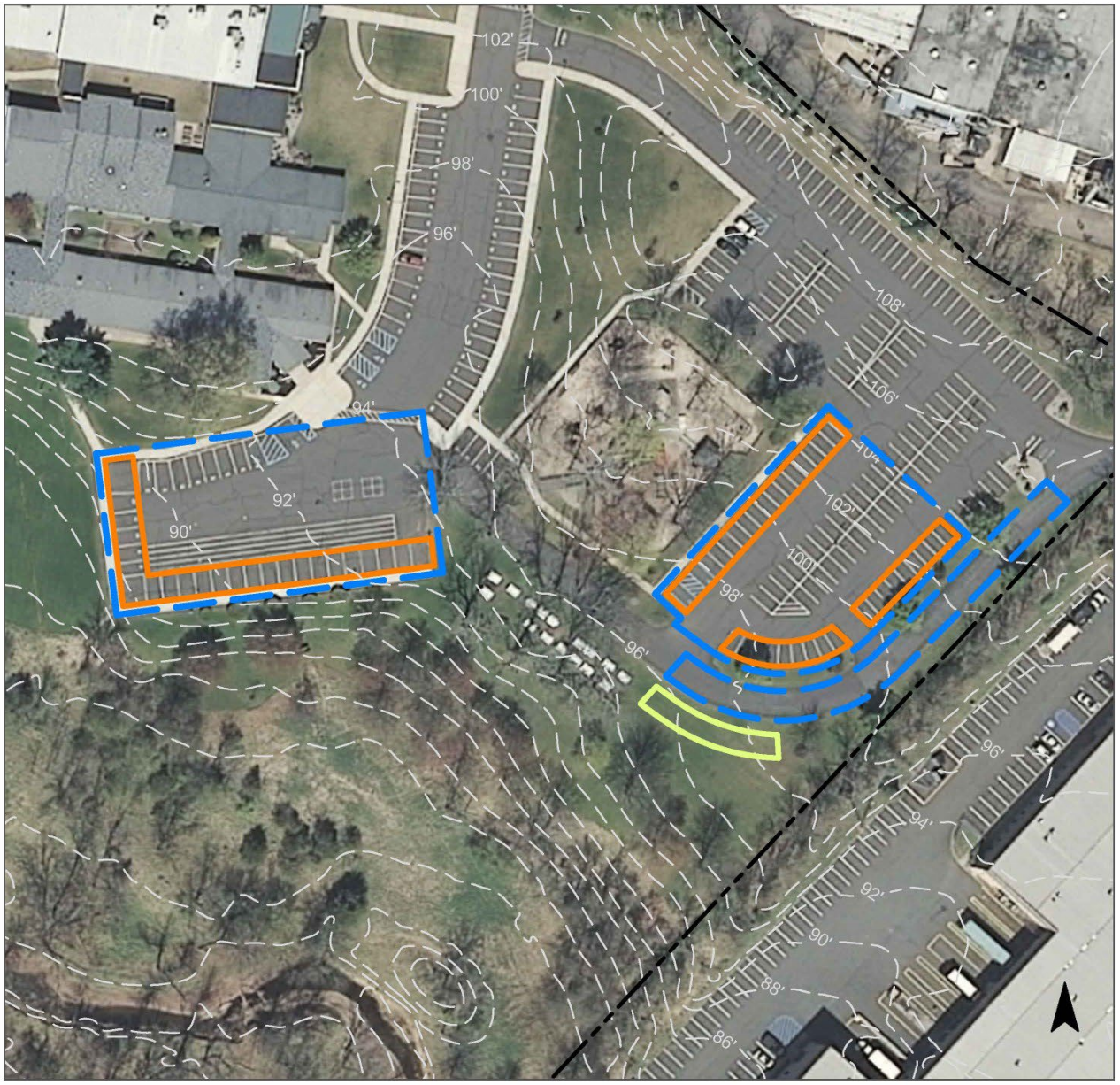
Block and Lot: Block 17, Lot 4

Parking spaces can be replaced with pervious pavement to infiltrate parking lot runoff. A rain garden can be installed to capture, treat, and infiltrate driveway 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"
13	295,178	14.2	149.1	1,355.3	0.230	8.10

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	0.156	26	11,474	0.43	1,400	$7,000
Pervious pavements	1.107	185	81,255	3.05	10,500	$262,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



The Midland School

- pervious pavements
- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 50' 100'

VERIZON WIRELESS

RAP ID: 4

Subwatershed: Chambers Brook

Site Area: 587,278 sq. ft.

Address: 141 Industrial Parkway
Branchburg, NJ 08876

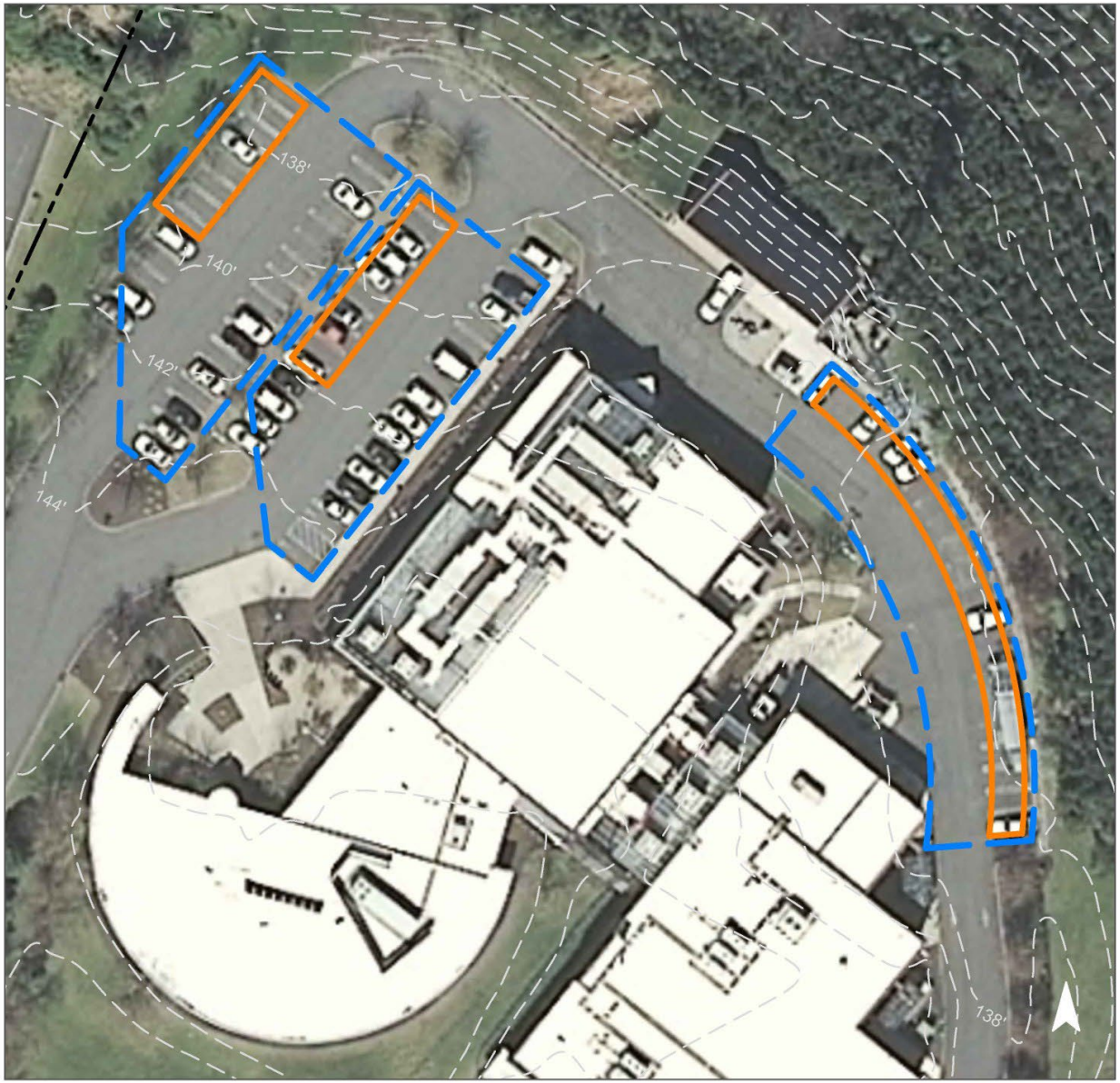
Block and Lot: Block 17.01, Lot 22.05

Parking spots on the east and west sides of the building can be replaced with porous asphalt to capture and infiltrate parking lot 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"
24	138,244	6.7	69.8	634.7	0.108	3.79

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 pavements	0.690	116	50,662	1.90	5,500	$137,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



Verizon Wireless

- pervious pavements
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 30' 60'

WHITE OAK PARK

RAP ID: 5

Subwatershed: Chambers Brook

Site Area: 2,260,595 sq. ft.

Address: 200 Baird Road
Branchburg, NJ 08876

Block and Lot: Block 59, Lot 24, 25.01

Rain gardens can be built to capture, treat, and infiltrate roof 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"
5	113,002	5.4	57.1	518.8	0.088	3.10

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	0.070	12	5,161	0.19	800	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

White Oak Park

- disconnected downspouts
- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 30' 60'

BRANCHBURG POLICE HEADQUARTERS

RAP ID: 6

Subwatershed: Holland Brook

Site Area: 126,889 sq. ft.

Address: 1077 US 202
Branchburg, NJ 08876

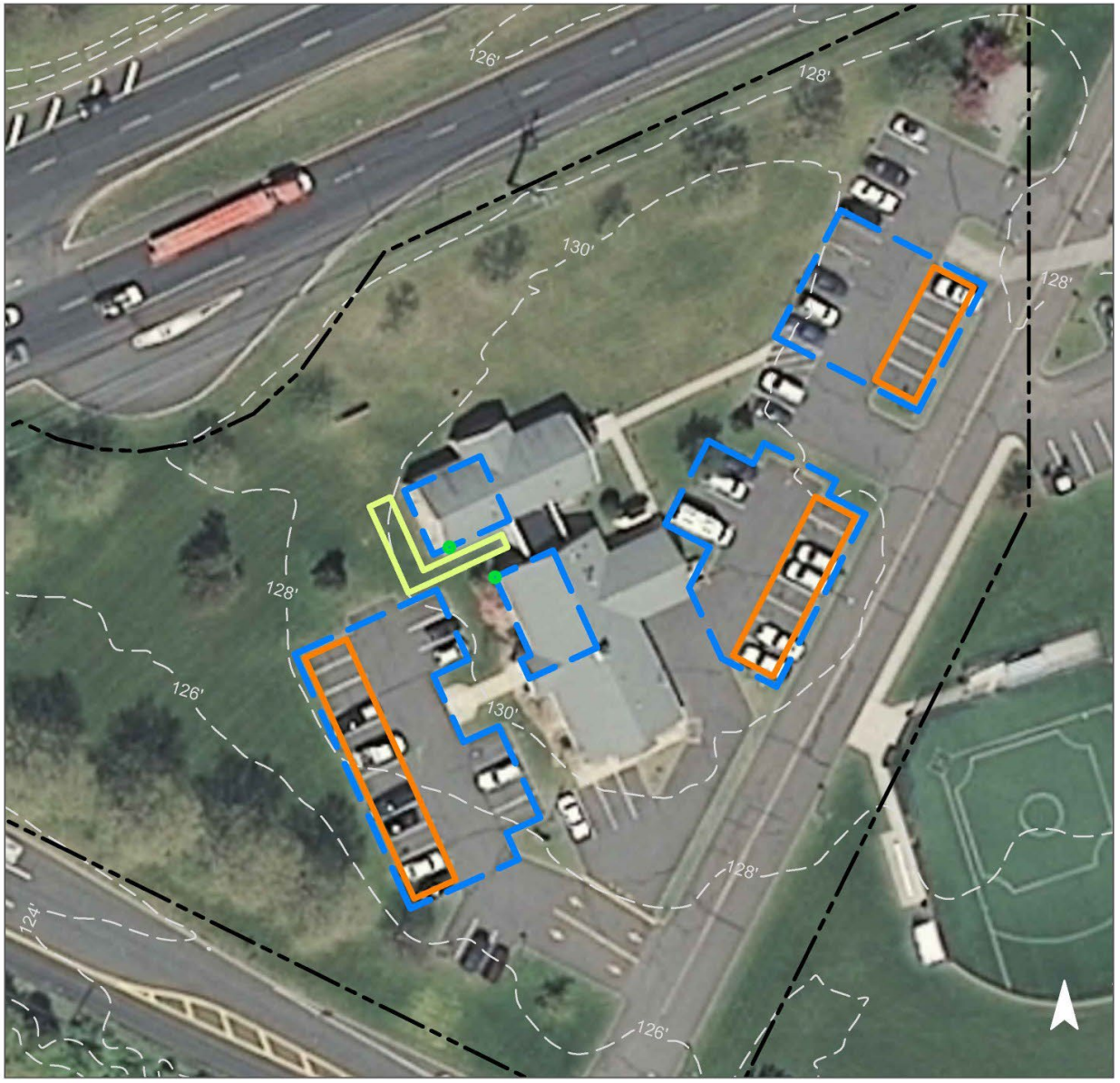
Block and Lot: Block 57, Lot 31

Parking spaces can be replaced with pervious pavement to infiltrate runoff. A rain garden can be installed to capture, treat, and infiltrate roof 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"
42	52,684	2.5	26.6	241.9	0.041	1.44

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	0.052	9	3,822	0.14	500	$2,500
Pervious pavements	0.365	61	26,763	1.01	4,000	$100,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Branchburg Police Headquarters

- disconnected downspouts
- pervious pavements
- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 30' 60'

MID-ATLANTIC CNC INC.

RAP ID: 7

Subwatershed: Holland Brook

Site Area: 376,725 sq. ft.

Address: 260 Evans Way
Branchburg, NJ 08876

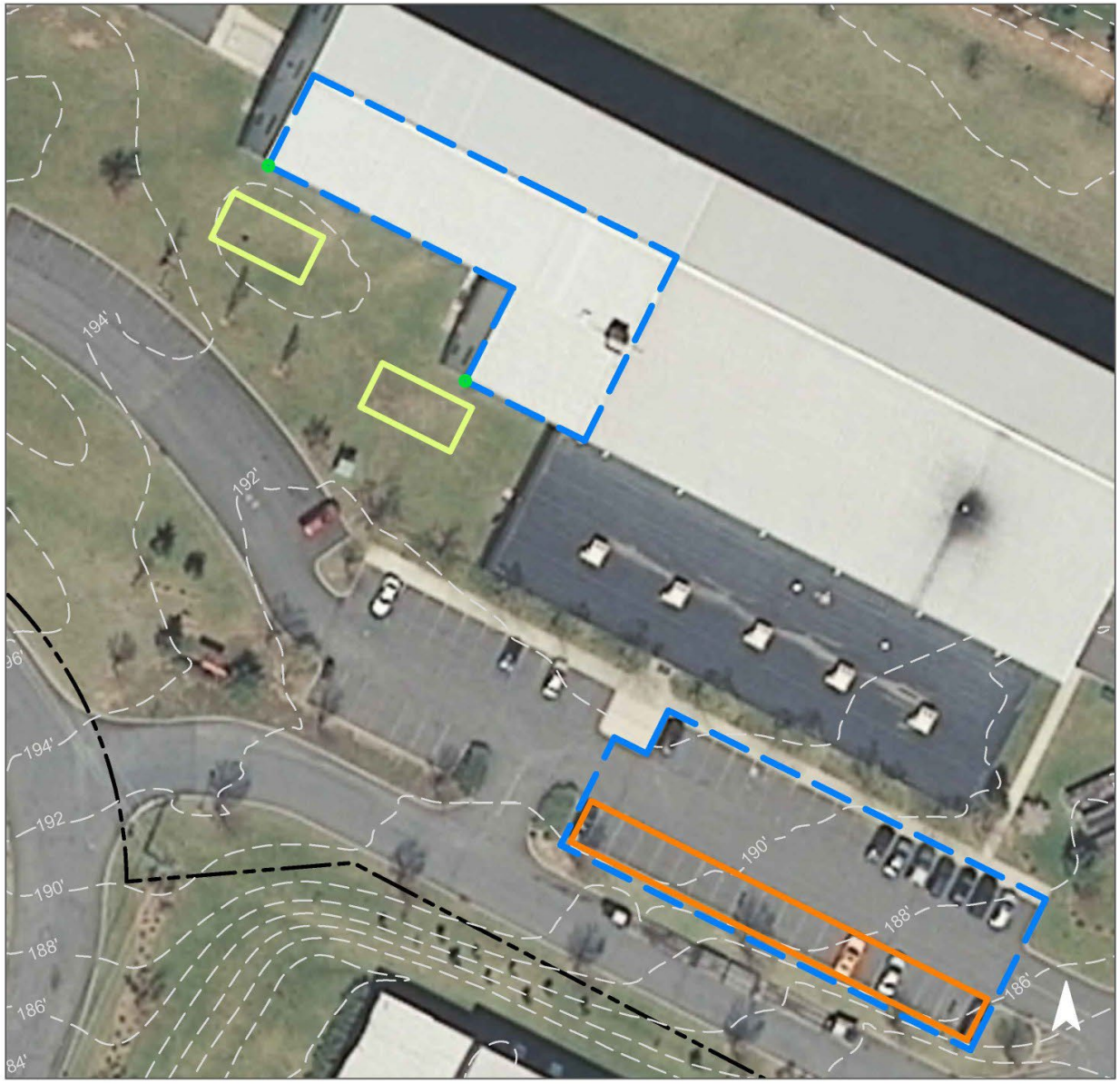
Block and Lot: Block 58, Lot 35

Bioretention systems can be installed to capture, treat, and infiltrate rooftop runoff. Parking spaces can be replaced with pervious pavement to infiltrate parking lot 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"
50	188,895	9.1	95.4	867.3	0.147	5.18

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	0.221	37	16,254	0.61	1,500	$7,500
Pervious pavements	0.305	51	22,365	0.84	3,000	$75,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Mid-Atlantic CNC Inc.

- disconnected downspouts
- pervious pavements
- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 30' 60'

BRANCHBURG MUNICIPAL BUILDING

RAP ID: 8

Subwatershed: Raritan River North Branch

Site Area: 343,525 sq. ft.

Address: 1077 US 202
Branchburg, NJ 08876

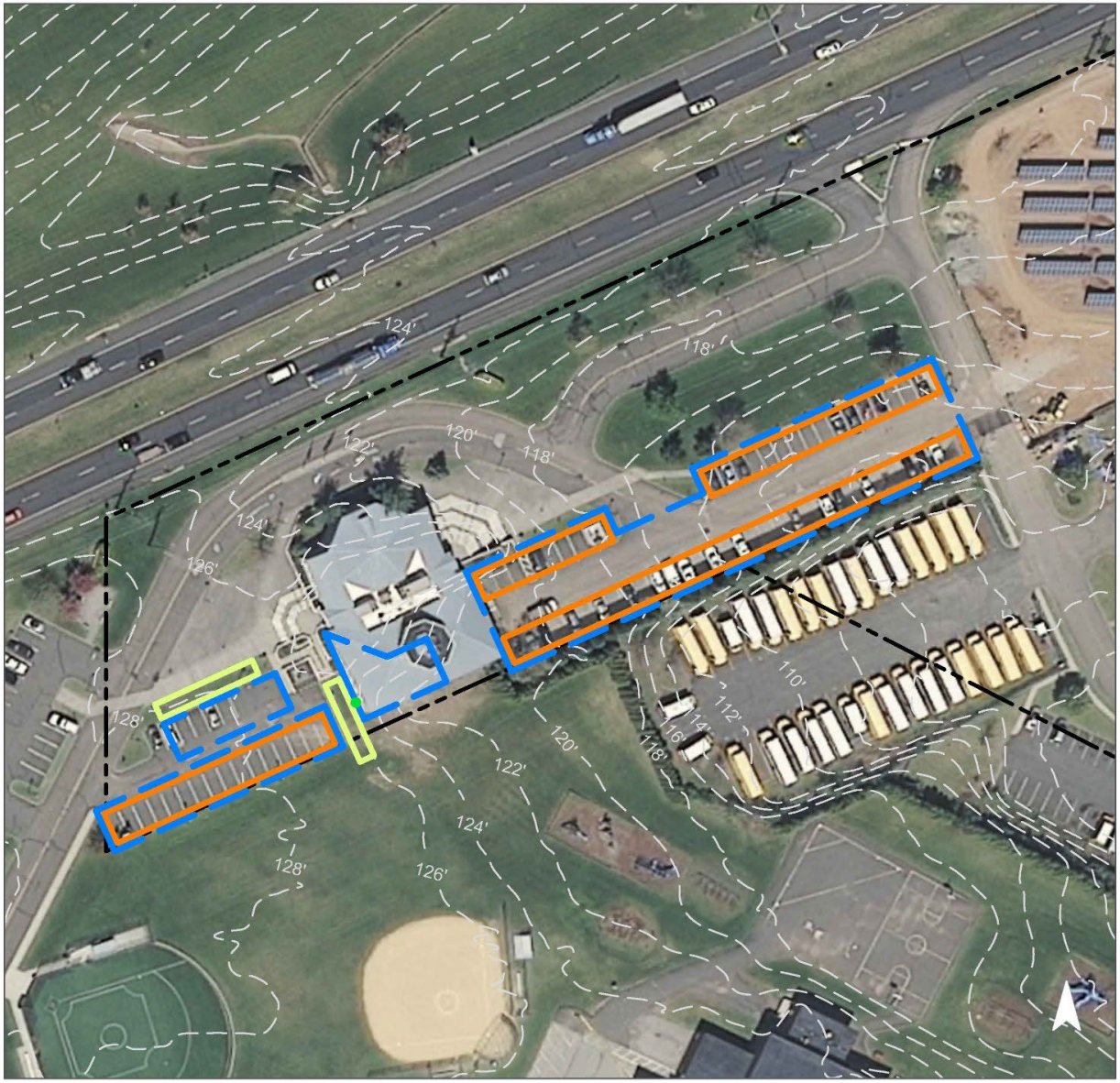
Block and Lot: Block 57, Lot 31

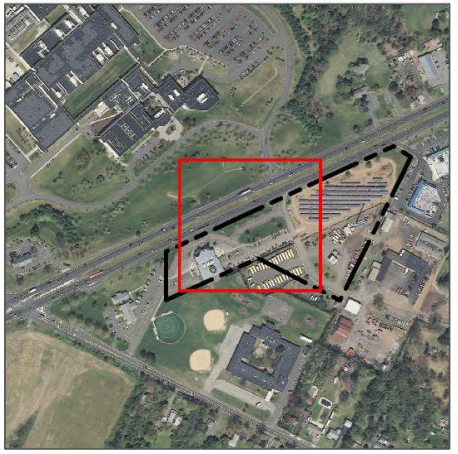
Parking spaces can be replaced with pervious pavement to infiltrate runoff. Bioretention systems can be installed to capture, treat, and infiltrate additional stormwater. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green 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"
48	164,571	7.9	83.1	755.6	0.128	4.51

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	0.112	19	8,221	0.31	1,300	$6,500
Pervious pavements	0.724	121	53,153	2.00	13,800	$345,000

GREEN INFRASTRUCTURE RECOMMENDATIONS





Branchburg Municipal Building

- disconnected downspouts
- pervious pavements
- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 50' 100'

HOLIDAY INN EXPRESS HOTEL AND SUITES

RAP ID: 9

Subwatershed: Raritan River North Branch

Site Area: 148,307 sq. ft.

Address: 347 US 202
Branchburg, NJ 08876

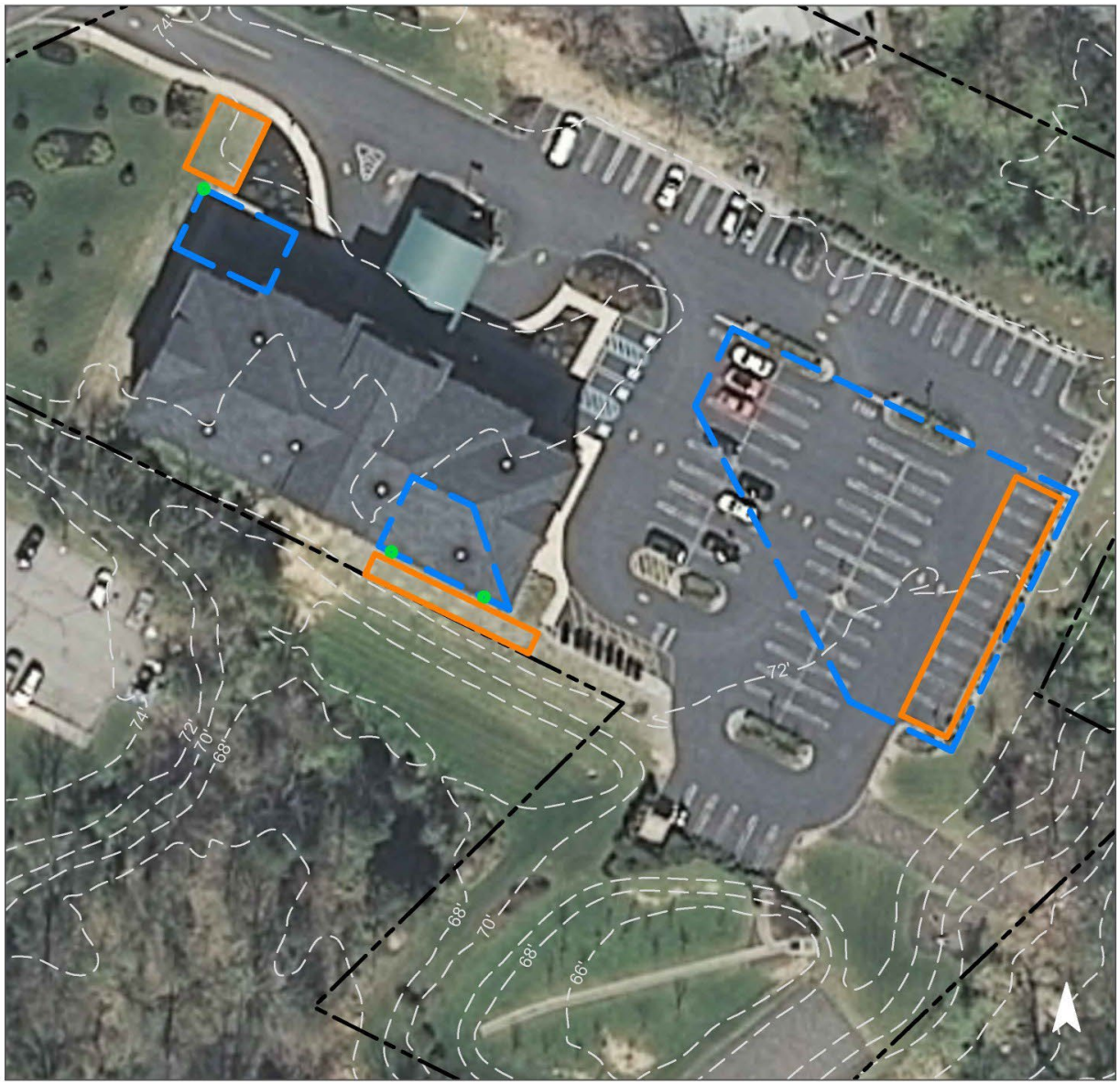
Block and Lot: Block 55, Lot 6,8

Existing pervious pavers surround the south and west sides of the buildings. Downspouts can be disconnected and directed into the pavers to capture and infiltrate roof runoff. Parking spaces can be replaced with porous asphalt to capture parking lot 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"
59	88,229	4.3	44.6	405.1	0.069	2.42

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
Pervious pavements	0.391	65	28,678	1.08	2,000	$50,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Holiday Inn Express Hotel and Suites

- disconnected downspouts
- pervious pavements
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 30' 60'

RARITAN VALLEY COMMUNITY COLLEGE

RAP ID: 10

Subwatershed: Raritan River North Branch

Site Area: 9,956,441 sq. ft.

Address: 118 Lamington Road
Branchburg, NJ 08876

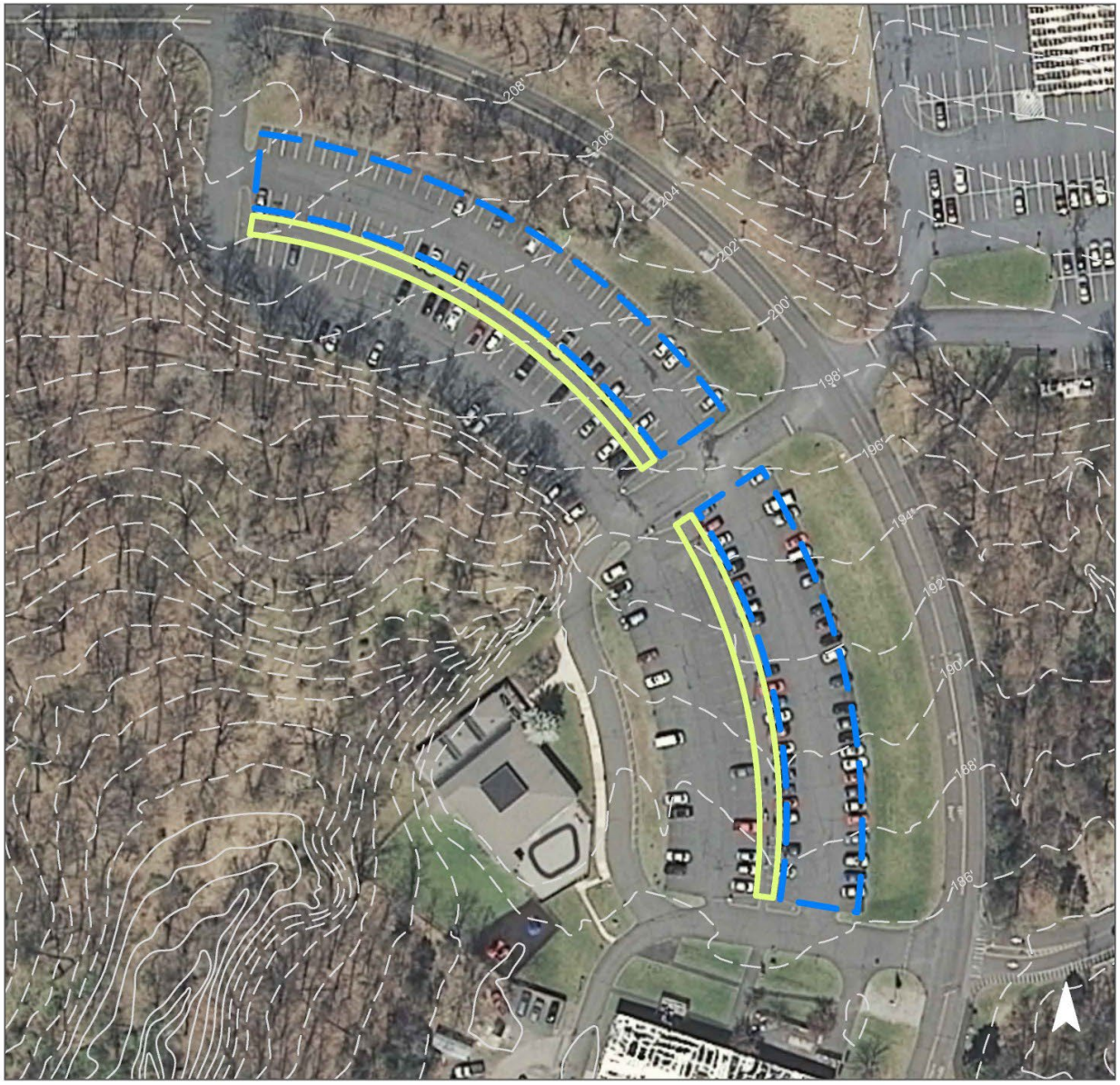
Block and Lot: Block 3, Lot 18.01

Two rain gardens can be installed in the parking lot to capture, treat, and infiltrate 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"
15	1,540,353	74.3	778.0	7,072.3	1.200	42.25

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 systems	0.782	131	57,357	2.16	6,800	$34,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Raritan Valley Community College

- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 50' 100'

STONY BROOK ELEMENTARY SCHOOL

RAP ID: 11

Subwatershed: Raritan River North Branch

Site Area: 565,562 sq. ft.

Address: 136 Cedar Grove Road
Branchburg, NJ 08876

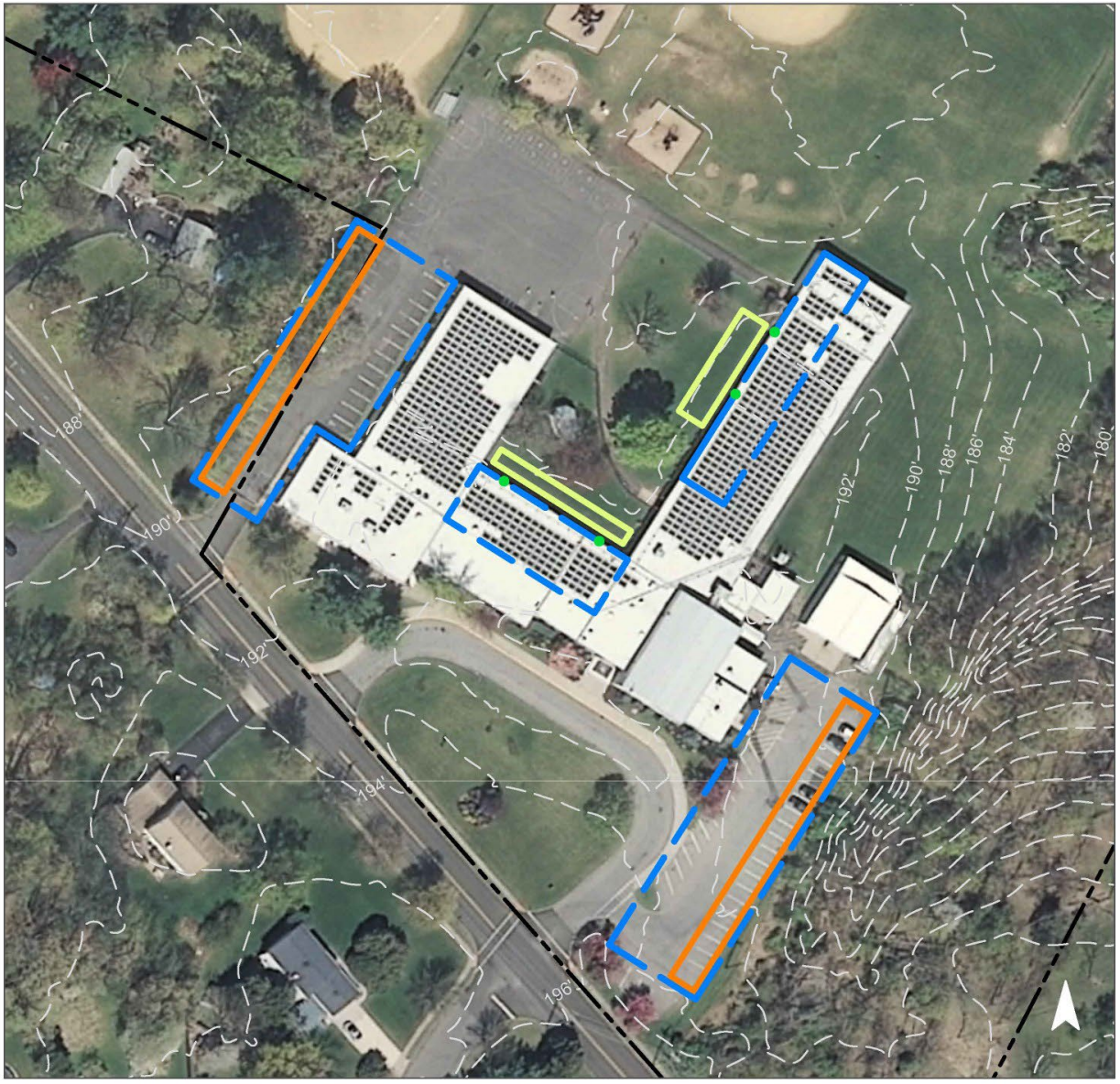
Block and Lot: Block 36, Lot 1

Parking spaces on the east and west sides of the school can be replaced with porous asphalt to capture and infiltrate stormwater runoff from the parking lot. Bioretention systems can be installed 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"
19	109,469	5.3	55.3	502.6	0.085	3.00

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	0.261	44	19,119	0.72	2,500	$12,500
Pervious pavements	0.743	124	54,484	2.05	7,400	$185,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Stony Brook Elementary School

- disconnected downspouts
- pervious pavements
- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 50' 100'

VIVA OPTIQUE INC.

RAP ID: 12

Subwatershed: Raritan River North Branch

Site Area: 588,198 sq. ft.

Address: 3140 US 22
Branchburg, NJ 08876

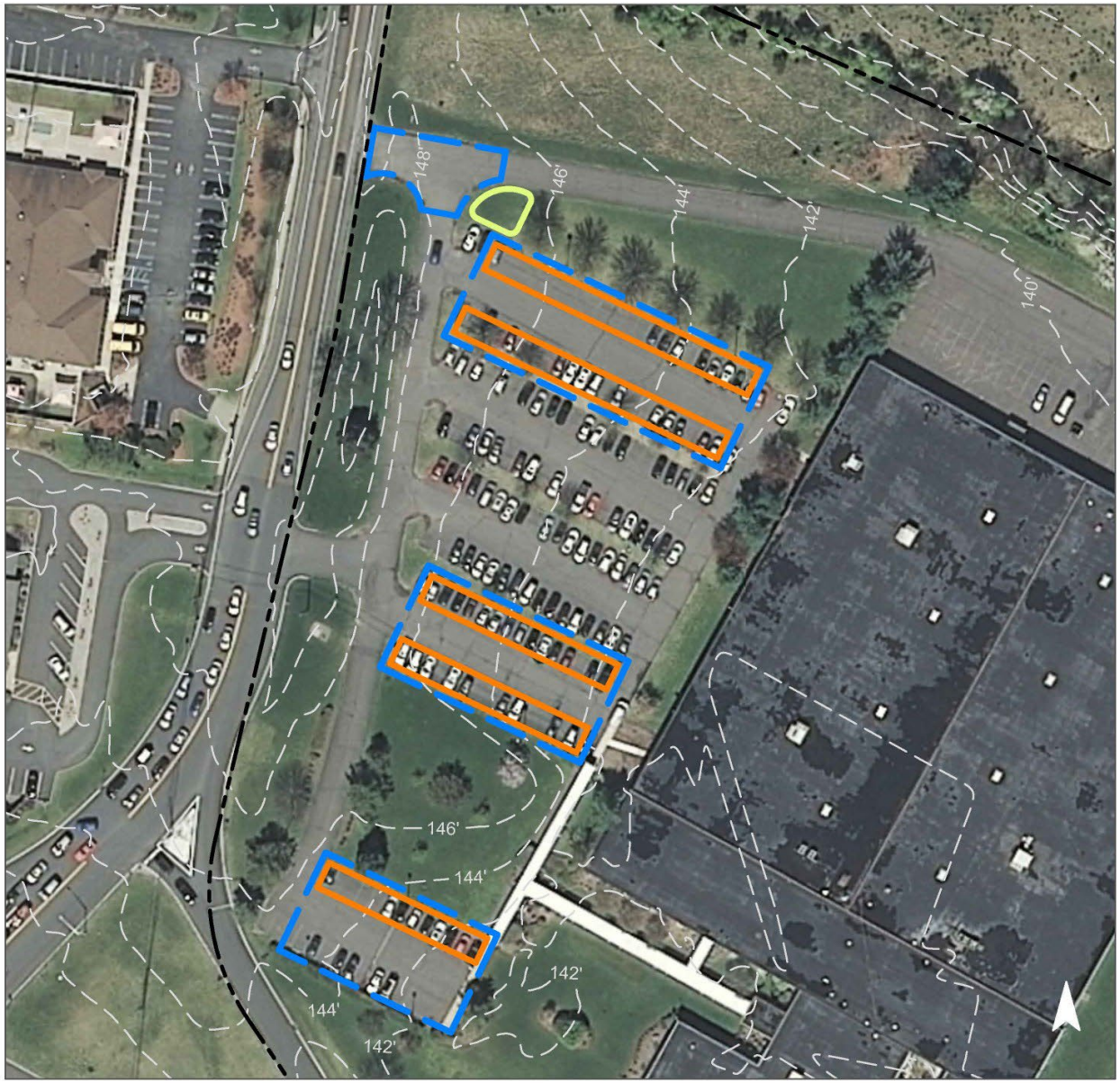
Block and Lot: Block 7, Lot 1.02

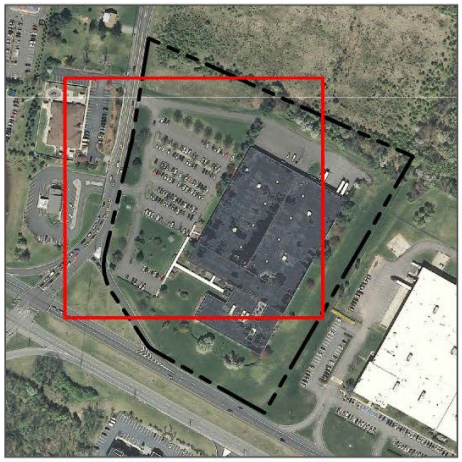
Parking spaces can be replaced with pervious pavement to infiltrate runoff. In the northwest corner of the site a rain garden can be installed to capture, treat, and infiltrate stormwater generated by the parking lot. A preliminary soil assessment suggests that the soils have suitable drainage characteristics 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"
49	285,813	13.8	144.4	1,312.3	0.223	7.84

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	0.078	13	5,737	0.22	800	$4,000
Pervious pavements	0.886	148	65,001	2.44	14,000	$350,000

GREEN INFRASTRUCTURE RECOMMENDATIONS





Viva Optique Inc.

- pervious pavements
- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 50' 100'

NESHANIC VALLEY GOLF COURSE

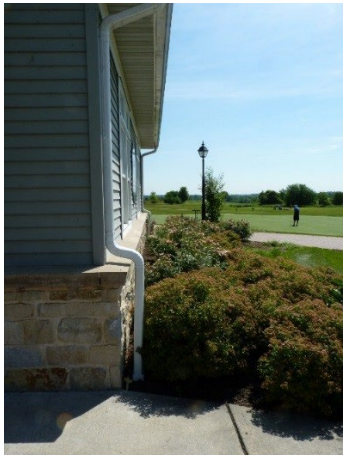
RAP ID: 13

Subwatershed: Raritan River South Branch

Site Area: 4,933,336 sq. ft.

Address: 2301 South Branch Road
Branchburg, NJ 08876

Block and Lot: Block 77, Lot 28



Parking spaces can be replaced with porous asphalt to capture and infiltrate runoff. Bioretention systems can also be installed to capture, treat, and infiltrate roof 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"
1	62,507	3.0	31.6	287.0	0.049	1.71

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	0.044	7	3,254	0.12	500	$2,500
Pervious pavements	0.547	92	40,145	1.51	3,200	$80,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

Neshanic Valley Golf Course

- disconnected downspouts
- pervious pavements
- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 30' 60'

WHITON ELEMENTARY SCHOOL

RAP ID: 14

Subwatershed: Raritan River South Branch

Site Area: 702,026 sq. ft.

Address: 470 Whiton Road
Neshanic Station, NJ 08853

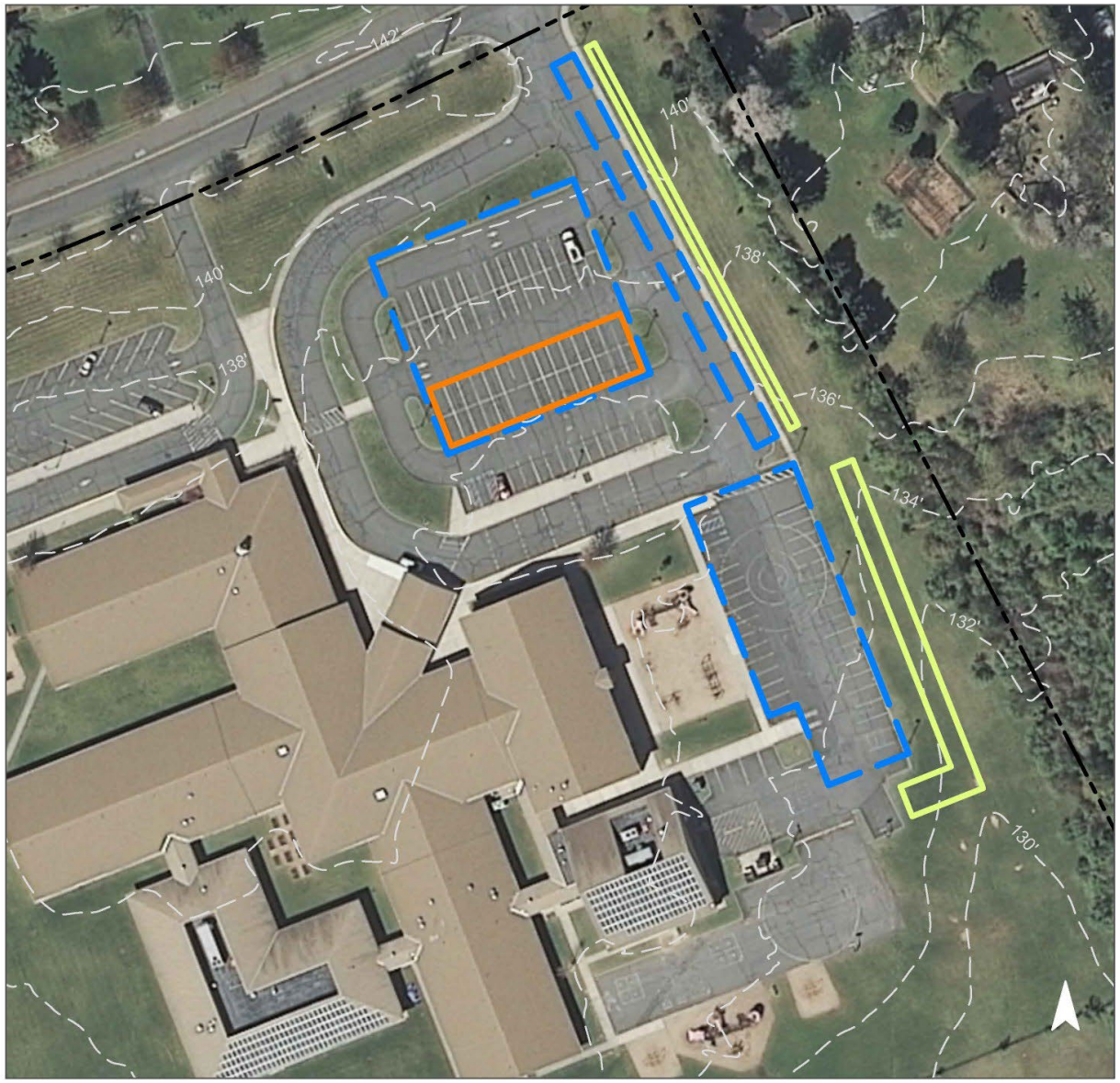
Block and Lot: Block 76.1, Lot 10.01

Bioretention systems can be built to capture, treat, and infiltrate parking lot runoff. Parking spaces can be replaced with pervious pavement. 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"
40	284,118	13.7	143.5	1,304.5	0.221	7.79

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	0.495	83	36,323	1.37	5,700	$28,500
Pervious pavements	0.521	87	38,238	1.44	5,000	$125,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Whiton Elementary School

- pervious pavements
- bioretention / rain gardens
- drainage areas
- property line
- 2012 Aerial: NJOIT, OGIS

0 50' 100'

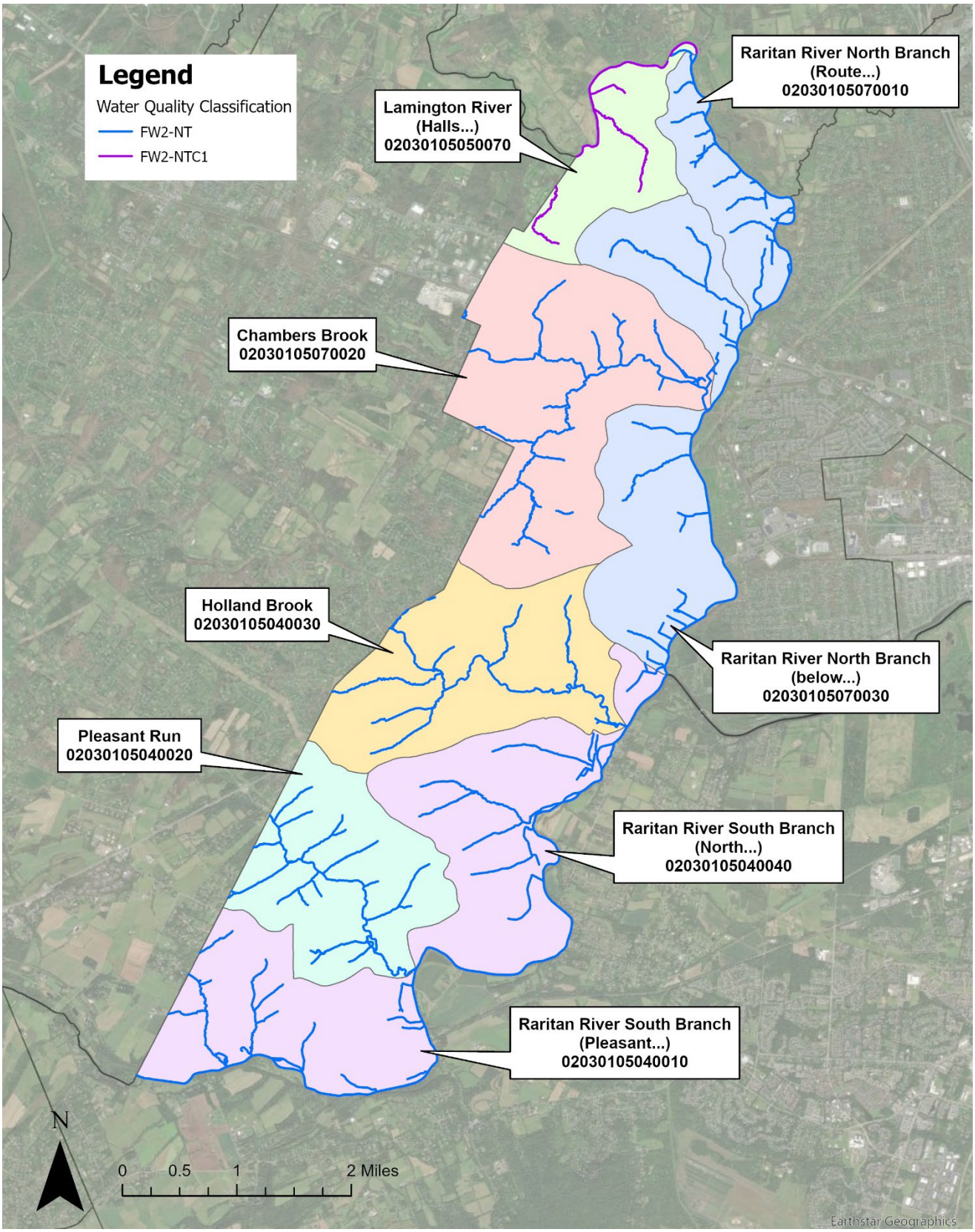


Figure 13. Water Quality Classification of Surface Waters in Branchburg Township

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

Surface Water Quality Classification	Surface Water Quality Code	Miles	Percent of Municipal Streams
Freshwater 2, non-trout	FW2-NT	68.6	94.2%
Freshwater 2, non-trout, Category One	FW2-NTC1	4.3	5.8%