Randolph Township

Introduction

Located in Morris County in New Jersey, Randolph Township covers about 21.2 square miles. With a population of 26,504 (2020 United States Census), Randolph Township consists of 52.1% of urban land uses by area. Of that urban land use, approximately 36.0% is comprised of low-density 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 46.3% of Randolph Township.

Randolph Township contains portions of eleven subwatersheds (Table 1). There are approximately 55.1 miles of rivers and streams within the municipality; these include Burnett Brook and its tributaries, Dawsons Brook and its tributaries, Den Brook and its tributaries, Harmony Brook and its tributaries, India Brook and its tributaries, Jackson Brook and its tributaries, Lamington River and its tributaries, Mill Brook and its tributaries, Rockaway River and its tributaries, tributaries to the Whippany River, and several uncoded tributaries. Randolph Township is within the New Jersey Department of Environmental Protection (NJDEP) Watershed Management Areas (WMA) 6 (Upper Passaic, Whippany, and Rockaway) and 8 (North and South Branch Raritan).

Table 1: Subwatersheds of Randolph Township

Subwatershed	HUC14
Whippany River (above road at 74d 33m)	02030103020010
Whippany River (Washington Valley Road to 74d 33m)	02030103020020
Whippany River (Lake Pocahontas to Washington Valley Road)	02030103020040
Rockaway River (74d 33m 30s to Stephens Brook)	02030103030070
Mill Brook (Morris County)	02030103030080
Rockaway River (Benchmark 534 bridge to 74d 33m 30s)	02030103030090
Den Brook	02030103030120
Lamington River (above Route 10)	02030105050010
Lamington River (Hillside Road to Route 10)	02030105050020

Raritan River North Branch (above/including India Brook)	02030105060010
Burnett Brook (above Old Mill Road)	02030105060020

The purpose of this report is to provide a comprehensive understanding of key, defining features within the subwatersheds throughout Randolph 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 Randolph 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 Randolph Township in relation to the study area. Figure 2 shows the portions of the eleven HUC14s in Randolph Township and highlights the HUC14s that are contained within the study area. Figure 3 illustrates the land use in Randolph Township. A detailed land use analysis and nonpoint source loading analysis was completed for each HUC14 in Randolph Township and is presented in Table 2. Figure 4 shows the impervious cover in Randolph Township based upon NJDEP's 2015 impervious cover layer. An impervious cover analysis was completed for each HUC14 in Randolph 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". Only detention basins and naturalized detention basins were identified Randolph Township within the study area.

The Q-Farms in Randolph 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 Randolph 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 171.0 acres of agricultural land use in Randolph Township, of which, 138.9 acres lie within the study area for this Watershed Restoration and Protection Plan. There are 20 Q-Farms and a portion of one Q-Farm in the study area portion of Randolph Township, totaling 262.5 acres. Within the 20 Q-Farms and portion of one Q-Farm, there are approximately 78.6 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 Randolph 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. Four HUC14s are included in the study area (02030105050010, 02030105050020, 02030105060010, 02030105060020). Within these four HUC14s, there are 178.6 acres of buildings and 227.4 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 Randolph Township, approximately 11.2 acres of rooftop runoff would be managed with 2.23 acres of rain gardens. The plan also calls for the management of 10% of the roadways with bioswales. For the study area within Randolph Township, approximately 22.7 acres of roadway would be managed, or 6.3 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 Randolph 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 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. Eight 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. Non-trout 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 subcategorized 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 five classifications that apply to the streams in Randolph Township. Figure 13 depicts the water quality classification of surface waters throughout Randolph Township and Table 11 summarizes the total miles and percentage of each surface water quality classification in the municipality.

Areas Prone to Flooding

Administrators from Randolph Township have identified several locations throughout the municipality that are particularly susceptible to flooding during heavy rainfall or storm events. The intersection of Route 10 and Sussex Turnpike has often been observed to experience flooding. In preparation for severe weather events, the municipality requests that the Department of Transportation (DOT) clears stormwater basins to minimize the risk of roadway inundation because the location falls under DOT and county jurisdiction. Rockaway Road adjacent to the railroad tracks experiences similar flooding issues and the municipality must contact the DOT prior to heavy rainfall events to request debris be cleared from the area because it falls under their jurisdiction. Debris that is not cleared can obstruct stormwater infrastructure and contribute to flooding that can pose a risk to infrastructure and public safety. The intersection of Jennifern Avenue and Route 10 is also identified as a location prone to flooding within Randolph Township. Figure 14 shows the locations of the aforementioned areas of concern.

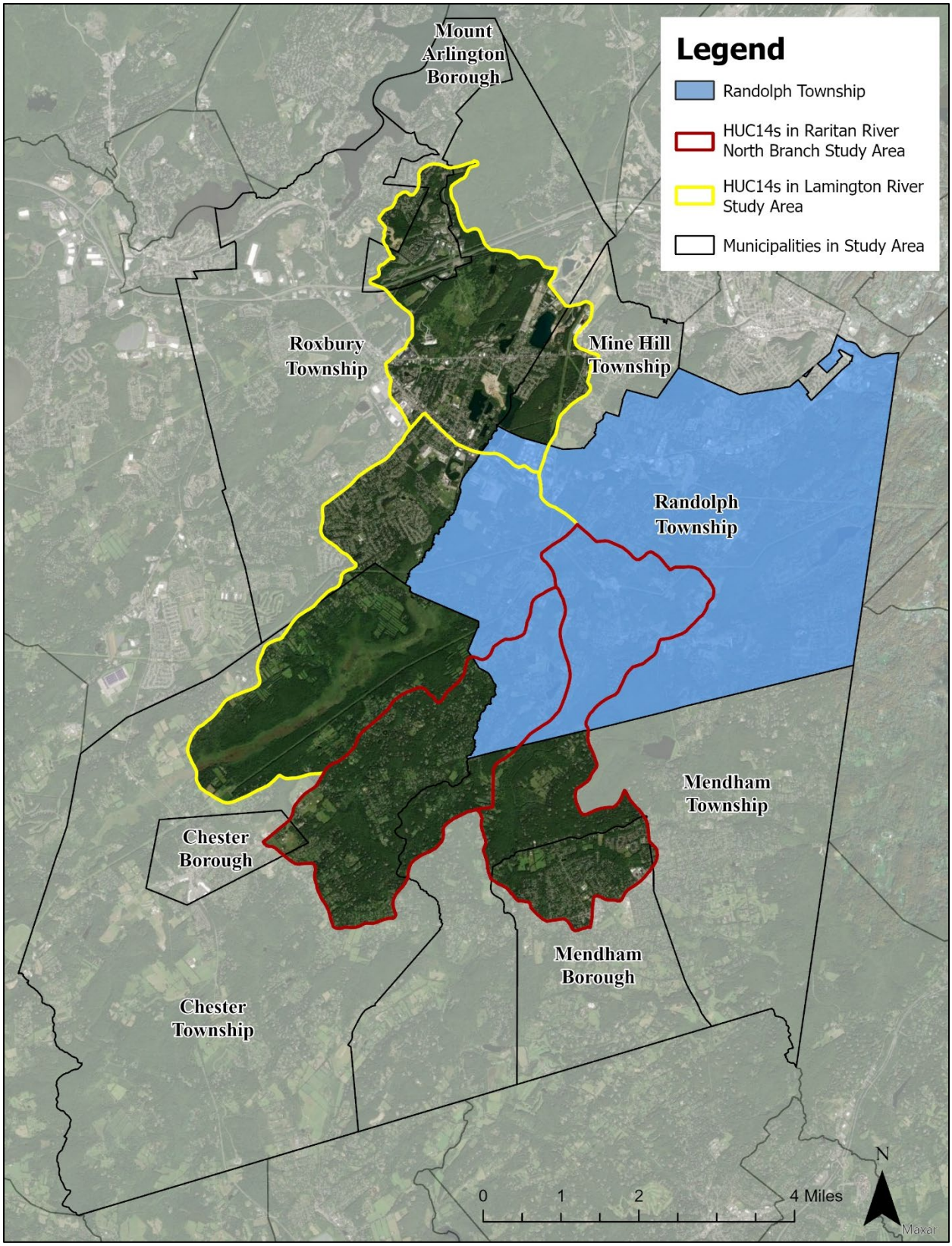


Figure 1: Municipalities in the Study Area

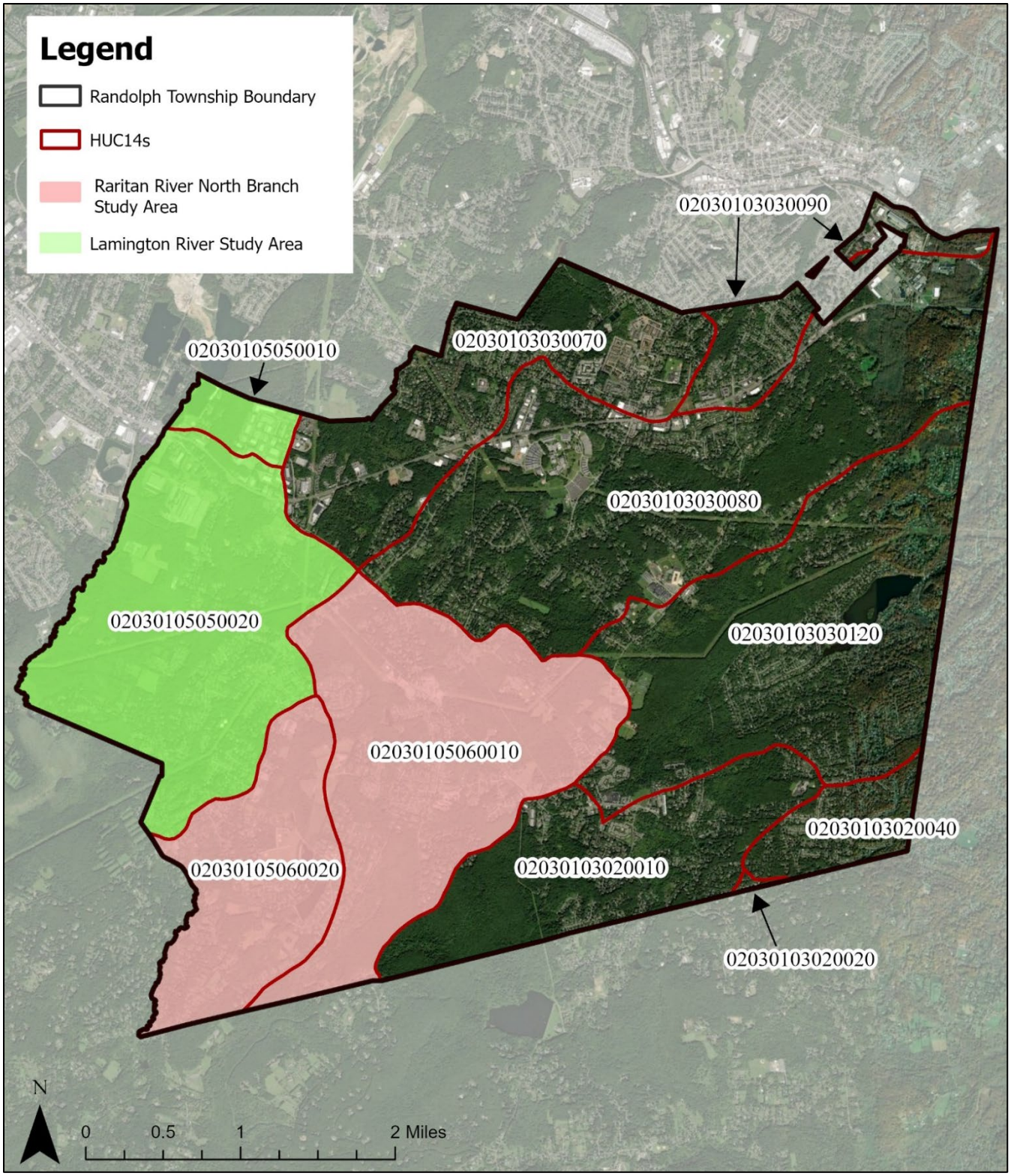


Figure 2: Portions of eleven HUC14s are in Randolph Township

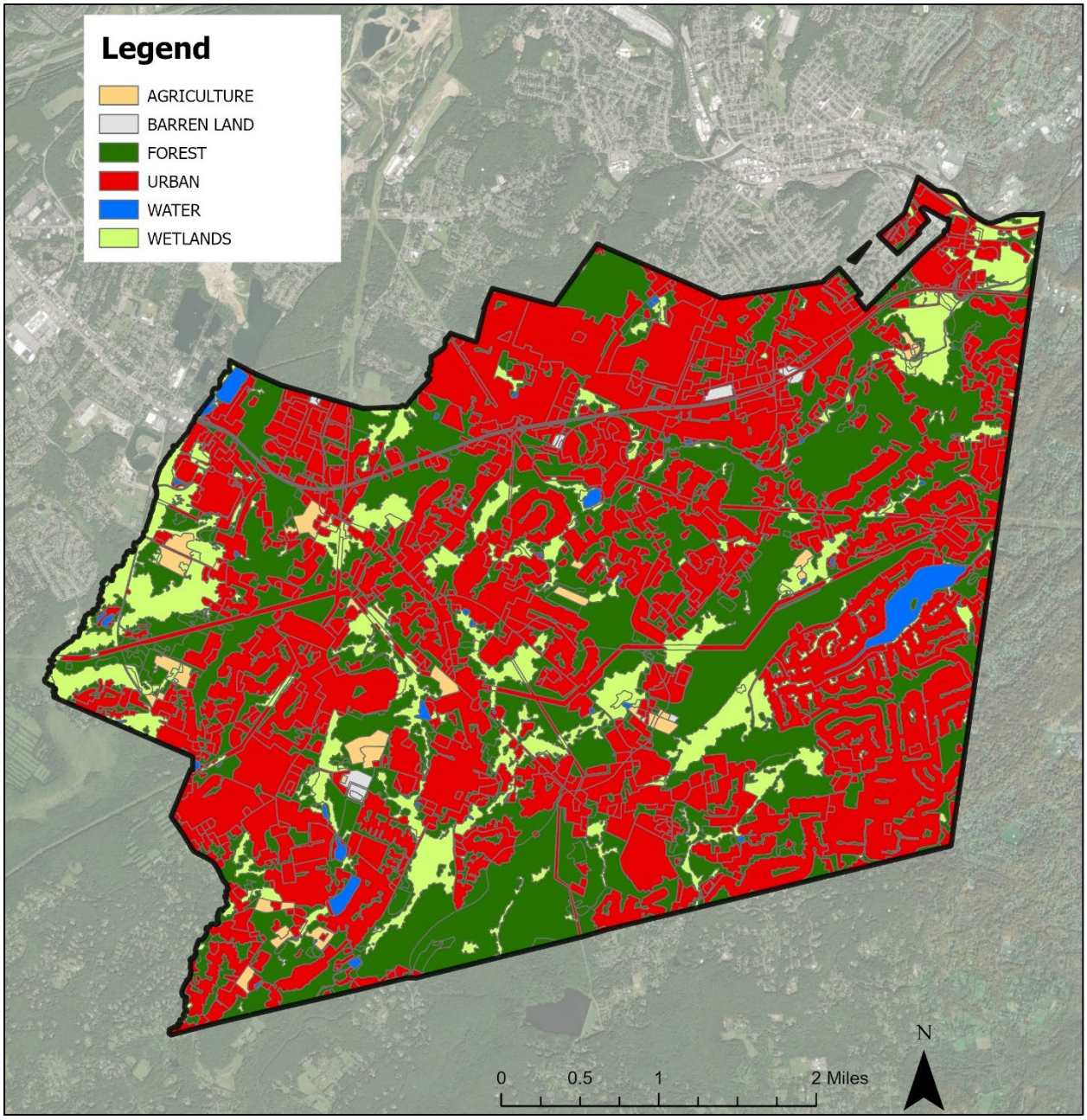


Figure 3: Land Use in Randolph Township

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

Land Use Type	Area (acres)	TP Load (lbs/yr)	TN Load (lbs/yr)	TSS Load (lbs/yr)
02030103020010				
Agriculture	0.04	0.1	0.4	13.4
Barren Land	0.0	0.0	0.0	0.0
Forest	640.2	64.0	1,920.7	25,610.0
Urban	480.2	672.3	7,203.1	67,229.0
Water	1.0	0.1	2.9	39.0
Wetlands	80.1	8.0	240.2	3,203.0
TOTAL =	**1,201.6**	**744.5**	**9,367.4**	**96,094.3**
02030103020020				
Agriculture	0.0	0.0	0.0	0.0
Barren Land	0.0	0.0	0.0	0.0
Forest	4.4	0.4	13.1	175.2
Urban	8.0	11.2	119.9	1,119.4
Water	0.0	0.0	0.0	0.0
Wetlands	0.0	0.0	0.0	0.0
TOTAL =	**12.4**	**11.6**	**133.1**	**1,294.7**
02030103020040				
Agriculture	0.0	0.0	0.0	0.0
Barren Land	0.0	0.0	0.0	0.0
Forest	67.0	6.7	201.1	2,680.7
Urban	258.3	361.6	3,874.7	36,163.5
Water	0.0	0.0	0.0	0.0
Wetlands	1.8	0.2	5.3	70.1
TOTAL =	**327.1**	**368.5**	**4,081.0**	**38,914.3**
02030103030070				
Agriculture	0.8	1.0	8.1	242.1
Barren Land	3.6	1.8	18.0	216.4
Forest	377.3	37.7	1,131.9	15,092.2
Urban	888.7	1,244.1	13,329.9	124,412.1
Water	3.2	0.3	9.7	129.9
Wetlands	84.0	8.4	252.0	3,359.6
TOTAL =	**1,357.6**	**1,293.4**	**14,749.6**	**143,452.4**
02030103030080				
Agriculture	16.0	20.7	159.6	4,787.8
Barren Land	4.5	2.2	22.5	269.4
Forest	1,071.7	107.2	3,215.1	42,868.2
Urban	1,518.9	2,126.5	22,783.9	212,649.3
Water	23.4	2.3	70.2	936.4
Wetlands	269.8	27.0	809.5	10,792.9

TOTAL =	**2,904.3**	**2,286.0**	**27,060.7**	**272,304.1**
02030103030090				
Agriculture	0.0	0.0	0.0	0.0
Barren Land	10.7	5.3	53.4	640.7
Forest	60.3	6.0	180.9	2,412.5
Urban	274.7	384.5	4,119.9	38,452.0
Water	3.2	0.3	9.6	127.9
Wetlands	30.3	3.0	90.8	1,211.1
TOTAL =	**379.1**	**399.2**	**4,454.6**	**42,844.3**
02030103030120				
Agriculture	15.3	19.9	153.2	4,595.1
Barren Land	1.4	0.7	6.9	82.5
Forest	806.2	80.6	2,418.6	32,248.0
Urban	1,146.8	1,605.5	17,201.8	160,550.4
Water	77.6	7.8	232.7	3,102.4
Wetlands	214.5	21.4	643.4	8,578.3
TOTAL =	**2,261.7**	**1,735.9**	**20,656.5**	**209,156.7**
02030105050010				
Agriculture	0.0	0.0	0.0	0.0
Barren Land	2.3	1.2	11.6	138.7
Forest	41.4	4.1	124.1	1,655.3
Urban	98.4	137.8	1,476.2	13,777.8
Water	20.0	2.0	60.1	801.9
Wetlands	5.9	0.6	17.6	234.4
TOTAL =	**168.0**	**145.7**	**1,689.6**	**16,608.1**
02030105050020				
Agriculture	62.3	81.0	622.7	18,682.0
Barren Land	0.0	0.0	0.0	0.0
Forest	582.6	58.3	1,747.9	23,305.9
Urban	950.1	1,330.1	14,250.8	133,007.7
Water	12.0	1.2	36.1	481.0
Wetlands	345.1	34.5	1,035.4	13,805.7
TOTAL =	**1,952.1**	**1,505.0**	**17,693.0**	**189,282.3**
02030105060010				
Agriculture	35.3	45.9	353.1	10,591.8
Barren Land	6.8	3.4	34.0	408.5
Forest	703.1	70.3	2,109.4	28,125.8
Urban	894.7	1,252.6	13,421.2	125,264.8
Water	13.4	1.3	40.2	535.8
Wetlands	319.1	31.9	957.3	12,763.8
TOTAL =	**1,972.5**	**1,405.5**	**16,915.2**	**177,690.6**
02030105060020				
Agriculture	41.3	53.6	412.6	12,377.1

Barren Land	9.3	4.6	46.4	556.3
Forest	308.4	30.8	925.1	12,334.8
Urban	542.5	759.5	8,137.4	75,948.8
Water	21.1	2.1	63.4	844.7
Wetlands	82.8	8.3	248.3	3,310.9
TOTAL =	**1,005.3**	**859.0**	**9,833.1**	**105,372.6**
All HUCs				
Agriculture	171.0	222.3	1,709.6	51,289.3
Barren Land	38.5	19.3	192.7	2,312.6
Forest	4,662.7	466.3	13,988.2	186,508.7
Urban	7,061.3	9,885.8	105,918.8	988,575.0
Water	175.0	17.5	524.9	6,998.9
Wetlands	1,433.2	143.3	4,299.7	57,329.8
TOTAL =	**13,541.7**	**10,754.4**	**126,633.9**	**1,293,014.3**

Impervious Cover Analysis

NJDEP's Open Data impervious surface GIS data layer depicts surfaces throughout Randolph 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 Randolph Township. Based upon the NJDEP impervious surface data, Randolph Township has impervious cover totaling 18.7%. Table 3 shows impervious cover for each HUC14. The extent of the impervious cover in Randolph 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, Randolph Township's impervious cover percentage would suggest that its waterways are primarily impacted and most likely contributing to degradation of the state's surface water quality standards.

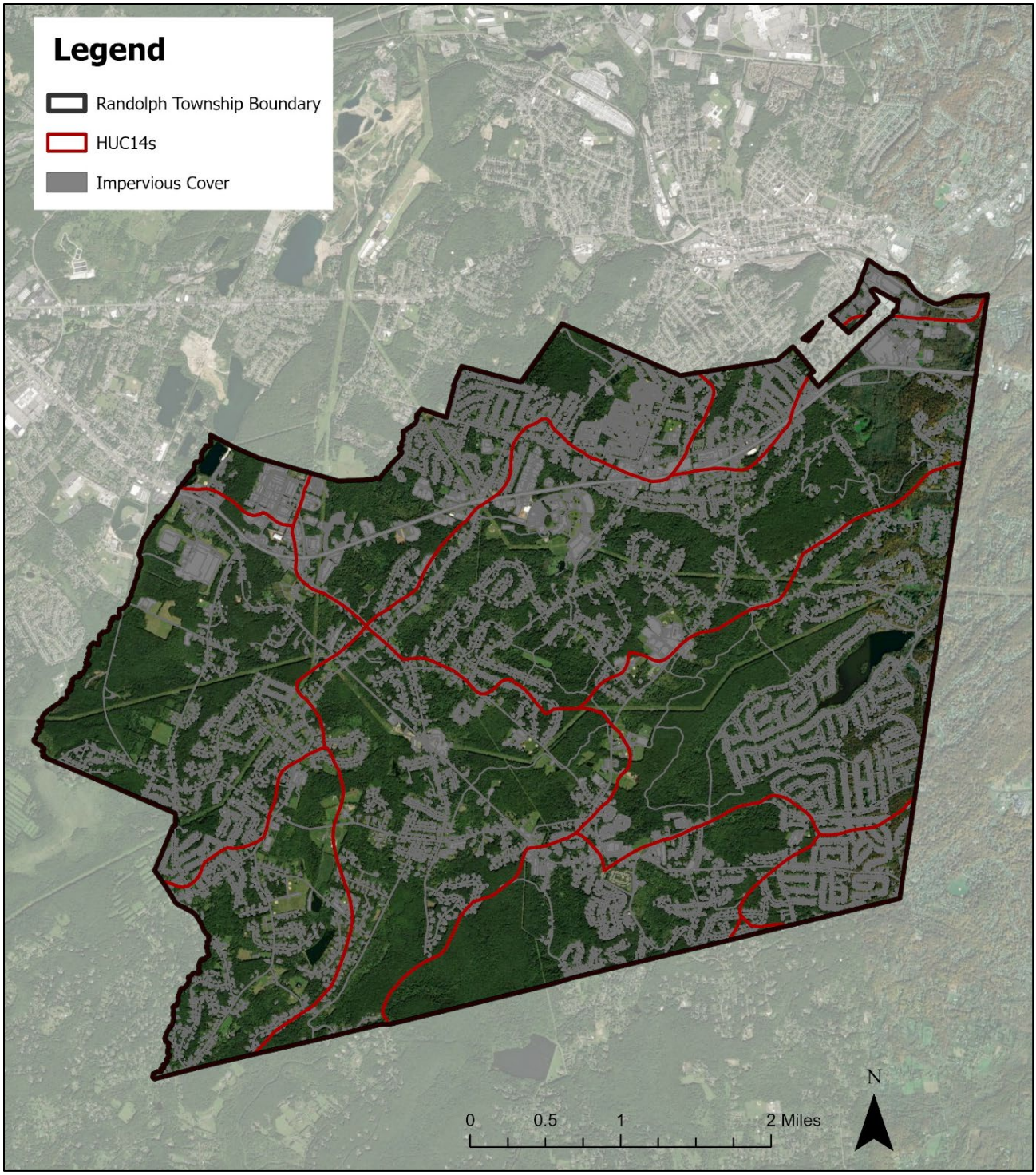


Figure 4: Impervious Cover in Randolph Township

Table 3: Impervious Cover Analysis by HUC14 for Randolph Township

Class	Area (acres)	HUC Impervious Cover (%)
02030103020010		
Building	42.72	
Other	77.16	
Road	53.50	
TOTAL =	**173.4**	**14.4%**
02030103020020		
Building	0.75	
Other	1.09	
Road	0.47	
TOTAL =	**2.3**	**18.7%**
02030103020040		
Building	27.15	
Other	36.69	
Road	32.61	
TOTAL =	**96.4**	**29.5%**
02030103030070		
Building	91.77	
Other	173.15	
Road	128.28	
TOTAL =	**393.2**	**29.0%**
02030103030080		
Building	121.58	
Other	279.52	
Road	167.12	
TOTAL =	**568.2**	**19.6%**
02030103030090		
Building	28.26	
Other	73.40	
Road	35.83	
TOTAL =	**137.5**	**36.3%**
02030103030120		
Building	97.46	
Other	155.78	
Road	122.42	
TOTAL =	**375.7**	**16.6%**
02030105050010		
Building	17.14	
Other	30.18	
Road	6.97	
TOTAL =	**54.3**	**32.3%**
02030105050020		
Building	78.01	
Other	155.67	
Road	92.95	
TOTAL =	**326.6**	**16.7%**

02030105060010		
Building	51.58	
Other	127.13	
Road	81.24	
TOTAL =	**260.0**	**13.2%**
02030105060020		
Building	31.85	
Other	70.59	
Road	46.20	
TOTAL =	**148.6**	**14.8%**
All HUCs		
Building	588.27	
Other	1,180.37	
Road	767.58	
TOTAL =	**2,536.2**	**18.7%**

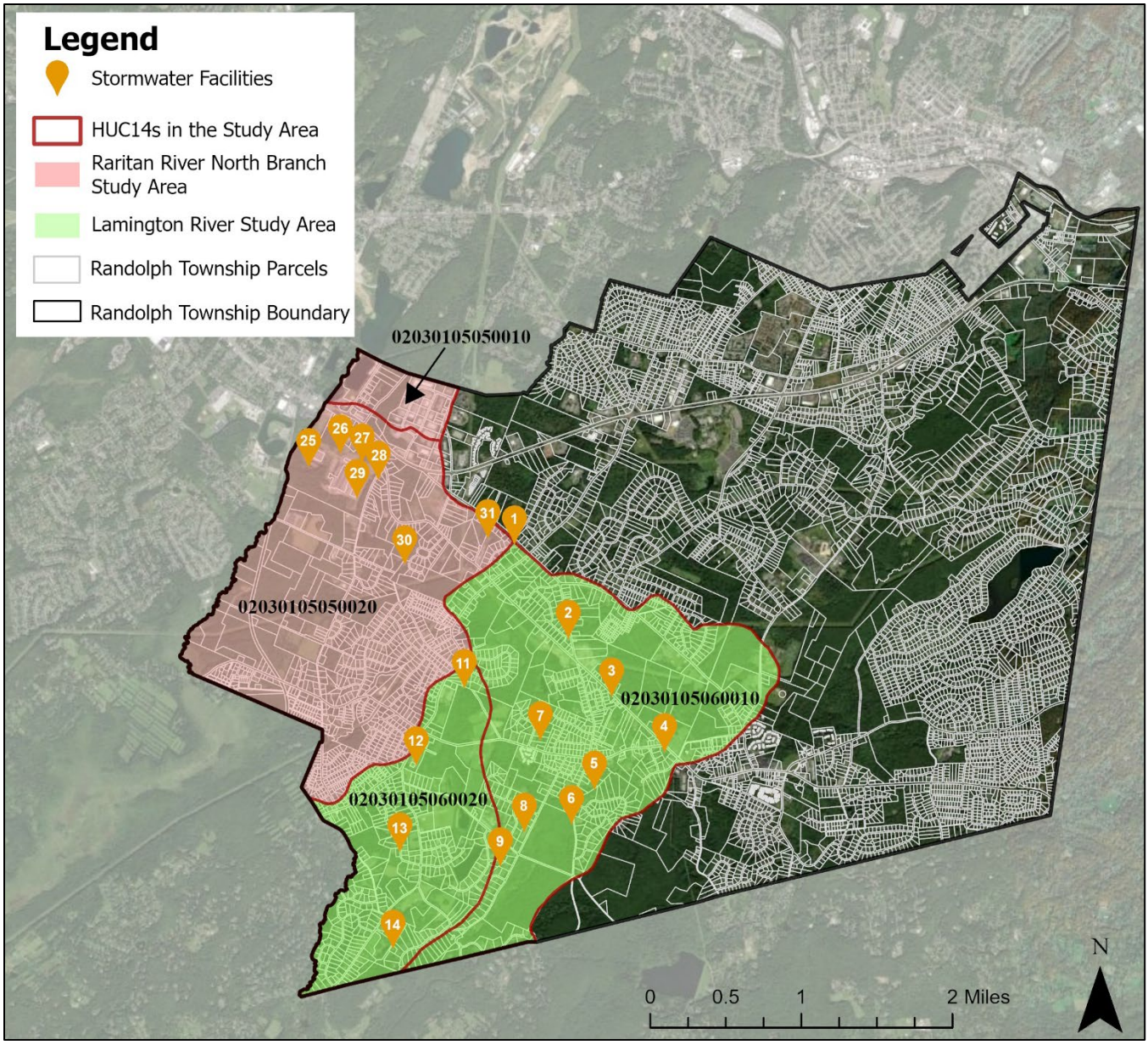


Figure 5: Stormwater Facilities in the Study Area of Randolph Township

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

Lamington River Study Area		
ID	**Address**	**Type**
25	1578 Sussex Tpke	N
26	1578 Sussex Tpke	N
27	1578 Sussex Tpke	N
28	1578 Sussex Tpke	D
29	1578 Sussex Tpke	N
30	Sherwood Ct	N
31	1447 Sussex Tpke	D
Raritan River North Branch Study Area		
ID	**Address**	**Type**
1	2 Tamari Ct	N
2	122 Morris Tpke	D
3	1318 Sussex Tpke	N
4	1264 Sussex Tpke	N
5	83 Heritage Ct	N
6	5 Dolly Bridge Rd	D
7	3 Edgewood Ter	N
8	57 Combs Hollow Rd	N
9	92 Doby Rd	N
11	99 Fairway	D
12	335 Dover Chester Rd	D
13	82 Patriots Way	N
14	Shadowbrook Way	N

"D" = Detention, "N" = Naturalized

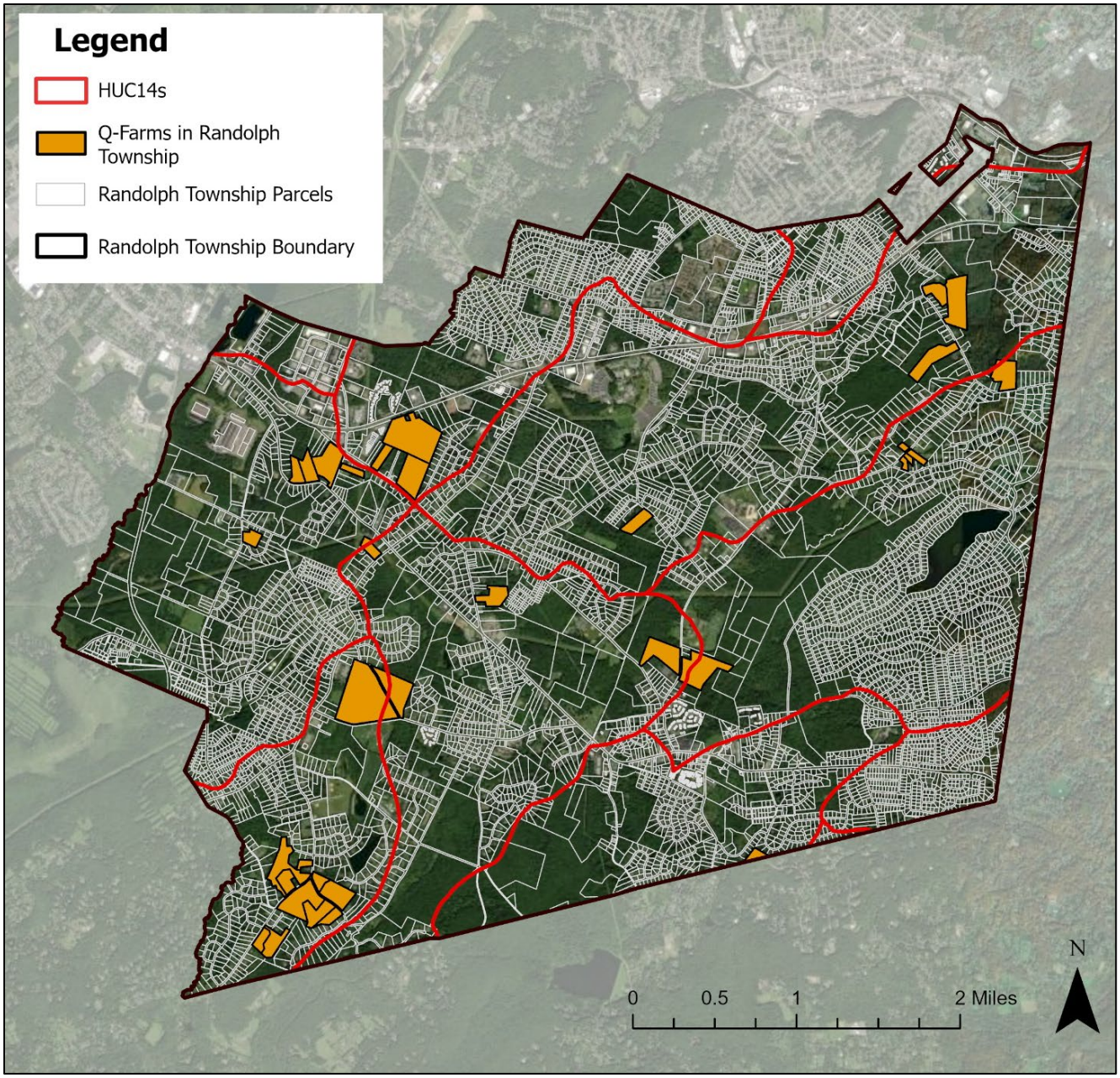


Figure 6: Q-Farm Parcels in Randolph Township

Table 5: Q-Farm Parcels in Randolph Township

Block	Lot	Q-Code	Prop Class	Location
20	9	QFARM	3B	19 Canfield Ave
20	11	QFARM	3B	1491 Sussex Tpke
20	12	QFARM	3B	1501 Sussex Tpke
21	28	QFARM	3B	230 Dover-Chester Rd
21.07	12	QFARM	3B	54 Park Ave
35	50	QFARM	3B	8 Patriots Way
35	50.16	QFARM	3B	85 South Rd
35	52	QFARM	3B	65 South Rd
40	1	QFARM	3B	10 Combs Ave
40	2	QFARM	3B	22 Combs Ave
40	3	QFARM	3B	30 Combs Ave
40	20.01	QFARM	3B	50 South Rd
40	20.02	QFARM	3B	50 South Rd
44	4	QFARM	3B	931 Route 10
44	41	QFARM	3B	65 Morris Tpke
44	48	QFARM	3B	39 Morris Tpke
45	1.01	QFARM	3B	40 Canfield Ave
47	34	QFARM	3B	95A Calais Rd
48	2	QFARM	3B	141 Calais Rd
51	18	QFARM	3B	21 Combs Ave
51	19	QFARM	3B	5 Combs Ave
82	26	QFARM	3B	52 School House Rd
82	39	QFARM	3B	645 Millbrook Ave
86	79	QFARM	3B	137 Morris Tpke
119	114	QFARM	3B	654 Millbrook Ave
146	42.01	QFARM	3B	73 Mountainside Dr
146	61	QFARM	3B	55 Everdale Rd
199	45	QFARM	3B	124 Mountainside Dr
199	48	QFARM	3B	58 Mountainside Dr
199	56	QFARM	3B	36 Mountainside Dr
201	1.01	QFARM	3B	55 Everdale Rd
201	2	QFARM	3B	55 Everdale Rd
201	3	QFARM	3B	60 Everdale Rd
227	72	QFARM	3B	Off Knights Bridge Dr

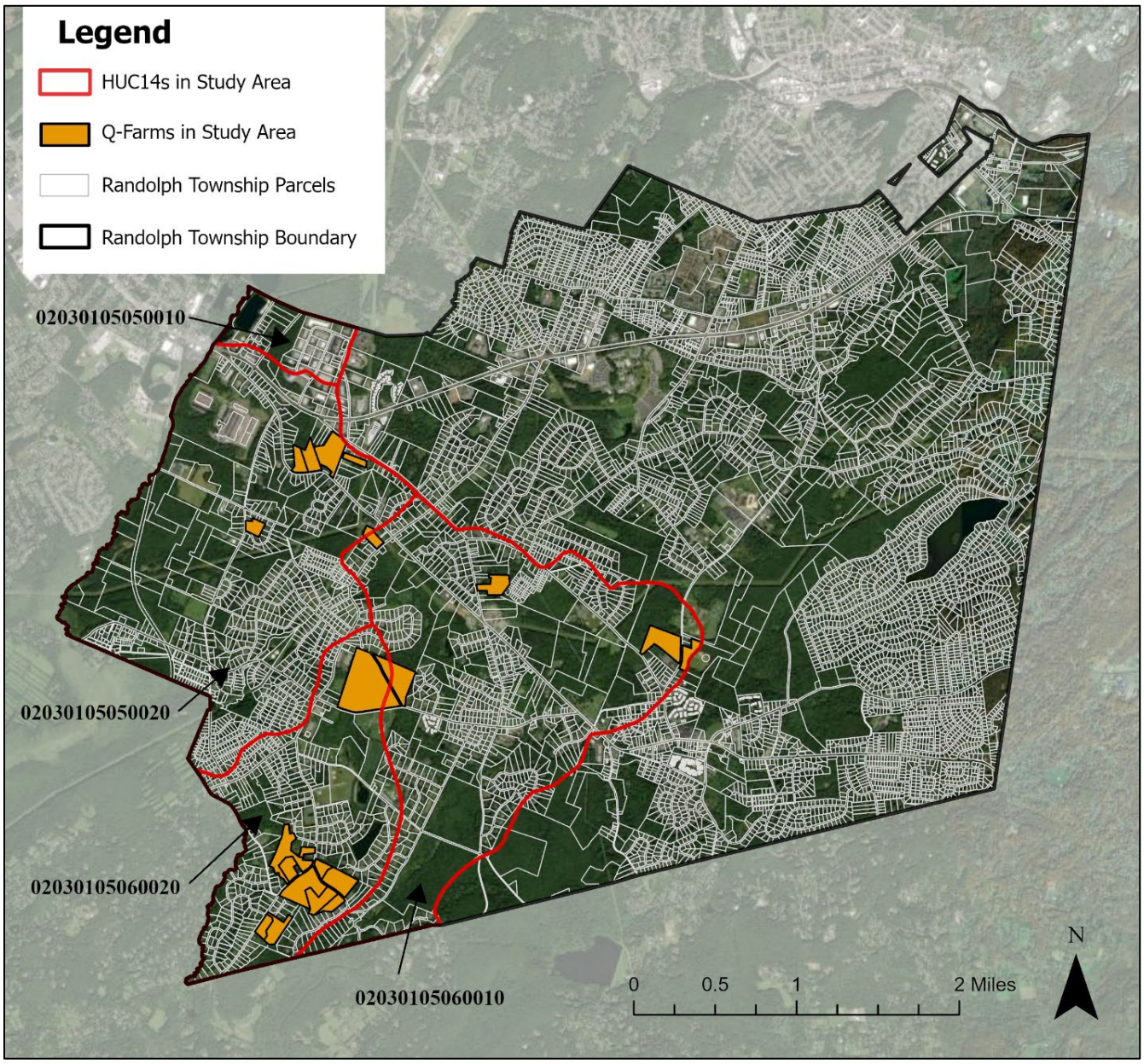


Figure 7: Q-Farm Parcels in the Study Area of Randolph Township

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

Block	Lot	Q-Code	Prop Class	Location
20	9	QFARM	3B	19 Canfield Ave
20	11	QFARM	3B	1491 Sussex Tpke
20	12	QFARM	3B	1501 Sussex Tpke
21	28	QFARM	3B	230 Dover-Chester Rd
21.07	12	QFARM	3B	54 Park Ave
35	50	QFARM	3B	8 Patriots Way
35	50.16	QFARM	3B	85 South Rd
35	52	QFARM	3B	65 South Rd
40	1	QFARM	3B	10 Combs Ave
40	2	QFARM	3B	22 Combs Ave
40	3	QFARM	3B	30 Combs Ave
40	20.02	QFARM	3B	50 South Rd
45	1.01	QFARM	3B	40 Canfield Ave
47	34	QFARM	3B	95A Calais Rd
48	2	QFARM	3B	141 Calais Rd
51	18	QFARM	3B	21 Combs Ave
51	19	QFARM	3B	5 Combs Ave
82	39	QFARM	3B	645 Millbrook Ave
86	79	QFARM	3B	137 Morris Tpke
*119	114	QFARM	3B	654 Millbrook Ave

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

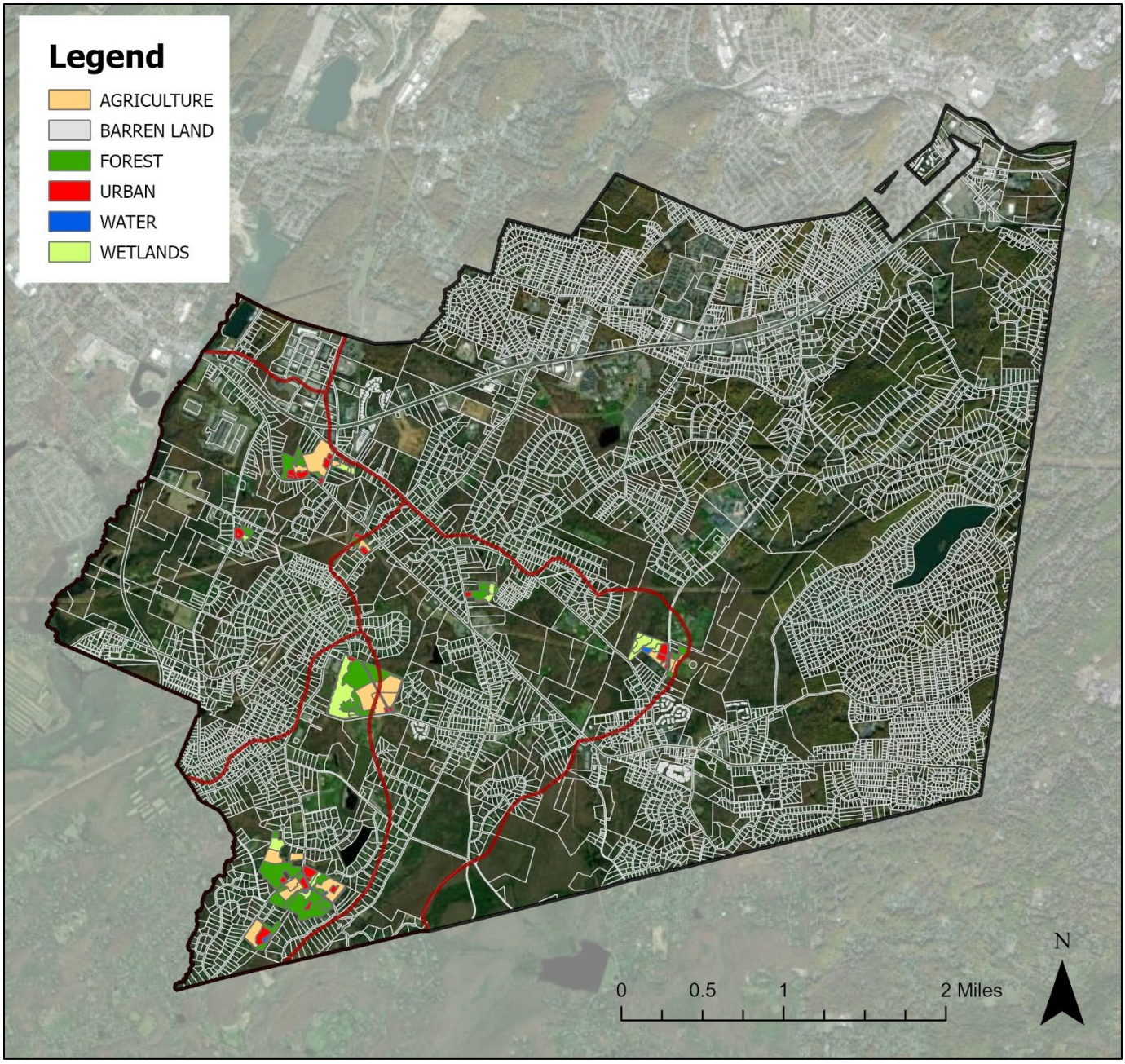


Figure 8: Land Use on Q-Farm Parcels in the Study Area of Randolph Township

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

Land Use	Area (acres)
Agriculture	78.6
Barren Land	0.0
Forest	105.3
Urban	31.3
Water	2.0
Wetlands	45.2
Total:	**262.4**

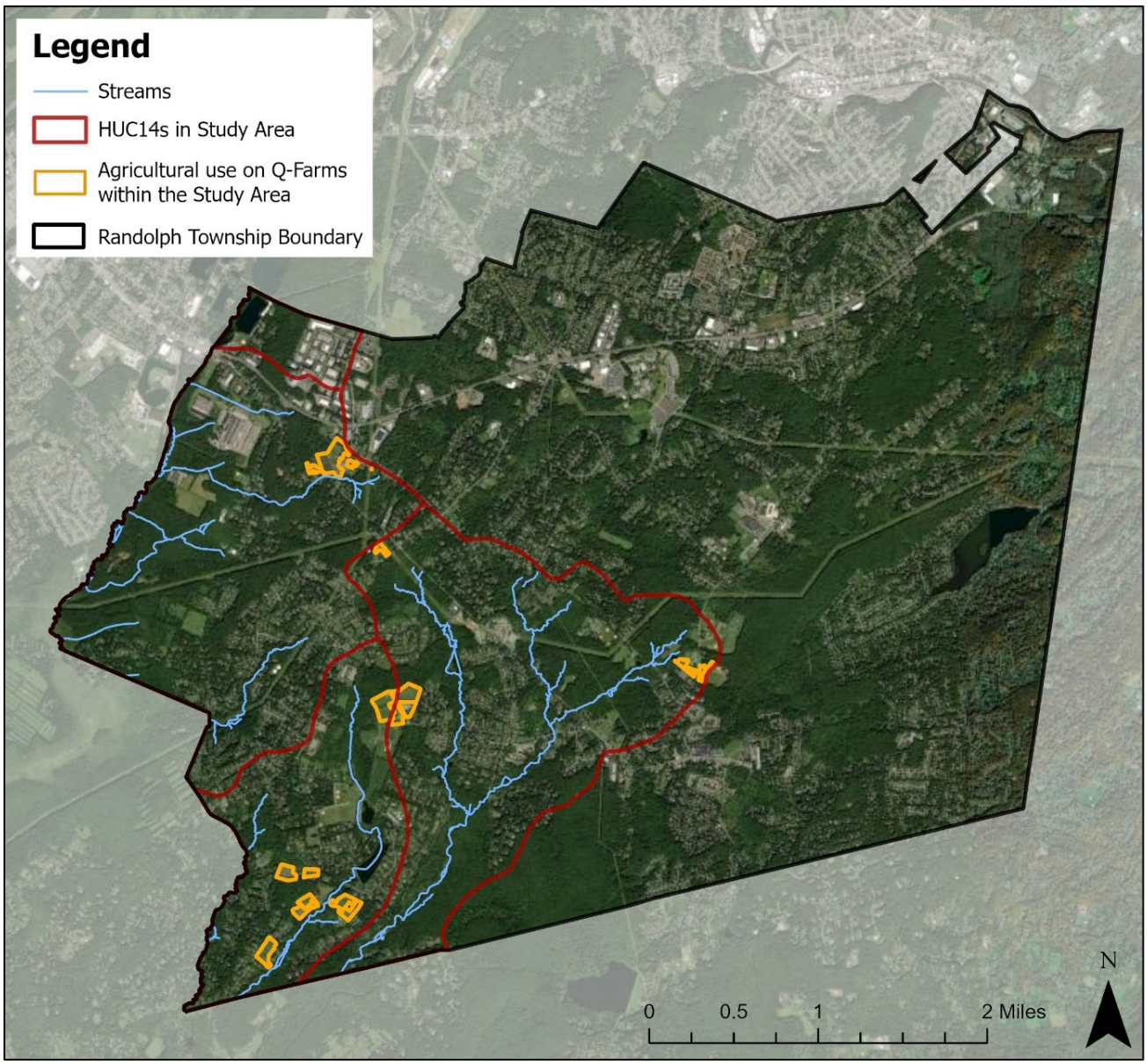


Figure 9: Aerial View of Agricultural Use on Q-Farm Parcels within the Study Area of Randolph Township

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

Lamington River Study Area								
Block	**Lot**	**Q-Farm Code**	**Cover Crop**	**Enhanced Stream Buffer**	**Impervious Cover Mgt.**	**Rainwater Harvesting**	**Livestock Exclusion**	**Manure Mgt.**
20	9	QFARM	X		X	X		
20	11	QFARM						

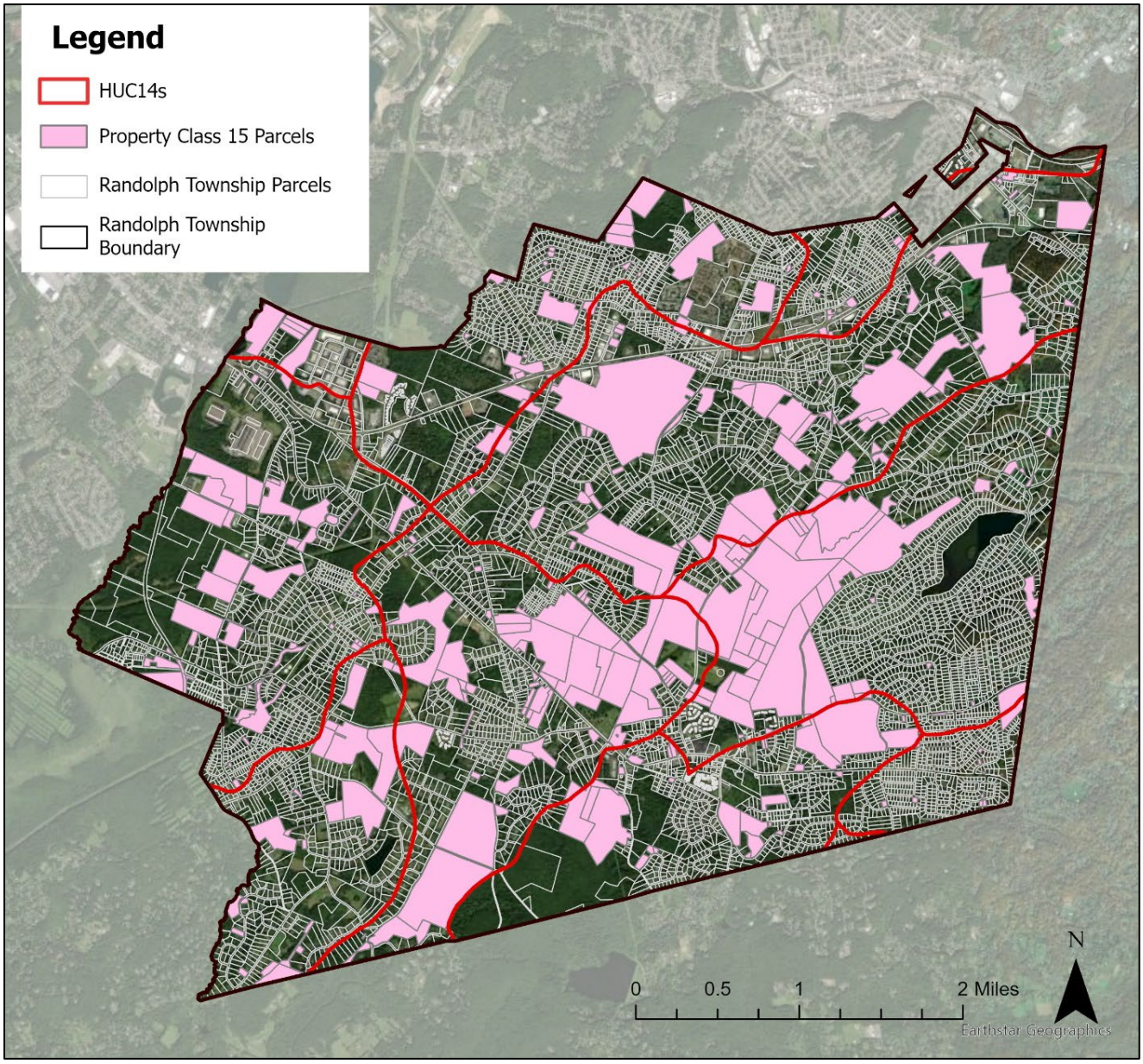


Figure 10: Property Class 15 Parcels in Randolph Township

Table 9: Property Class 15 Parcels in Randolph Township

Block	Lot	Prop Class	Location	Facility Type
47	7.32	15A	Off Quail Run	Sanitary Disposal
48	5	15A	303 Dover-Chester Rd	Ironia School
81	1	15A	214 Center Grove Rd	County College
110	11	15A	206 Quaker Church Rd	Fernbrook School
116	28	15A	507 Millbrook Ave	High & Intermediate
116	30	15A	522 Millbrook Ave	Schools
116	31	15A	559 Millbrook Ave	Vacant Land
116	33	15A	575 Millbrook Ave	Farm
116	34	15A	25 School House Rd	Intermediate School
168	58	15A	9 Arrow Pl	Shongum School
1	2	15C	43 Green Ln	Randolph Park
2	1	15C	76 Green Ln	Randolph Park
2	2	15C	68 Green Ln	Vacant Land
2	3	15C	64 Green Ln	Vacant Land
5	19	15C	41 Park Ave	Day Camp
5	22	15C	15 Righter Rd	Open Space
5	23	15C	45 Righter Rd	Vacant Land
5	26	15C	55A Righter Rd	Open Space
6	16	15C	49 Pleasant Hill Rd	Vacant Land
6	26	15C	111 Park Ave	Open Space
6	27.01	15C	57 Pleasant Hill Rd	Mua Easement
6	42	15C	83 Park Ave	Vacant Land
6	43	15C	75 Park Ave	Vacant Land
6	52	15C	18 Righter Rd	Vacant Land
6	53	15C	34 Righter Rd	Open Space
14	2.01	15C	147 Selma Blvd	Vacant Land
14	9	15C	Pleasant Hill Rd	Vacant Land
14	11	15C	9 Chester Ave	Well
14	27	15C	Off Selma Blvd	Vacant Land
18.01	1	15C	80 Irish Spring Rd	Vacant Land
21	19.15	15C	11 Nottingham Way	Dedicated Open Space
21	20	15C	1466 Sussex Tpke	Open Space
21	32.08	15C	Sherwood Ct	Open Space
21	39	15C	5 Stonehill Rd	Well
21	127.01	15C	110 Park Ave	Open Space
21	129	15C	Park Ave	Vacant Land
21	130.02	15C	72 Park Ave	Open Space
21	142	15C	18 James Rd	Open Space
21	149	15C	34 Park Ave	Camp
21	150.02	15C	32 Park Ave	Vacant Land
21.05	152	15C	Pleasant Hill Rd	Vacant Land
21.10	1	15C	Nottingham Way	Dedicated Open Space
23	18	15C	18 Aldebaran Dr	Vacant Land
27	5.08	15C	Off Spring Brook Dr	Vacant Land
27	6	15C	88A Pleasant Hill Rd	Vacant Land
27	8	15C	Dover-Chester Rd	Vacant Land

27	86.02	15C	152.5 Park Ave	Vacant Land
30	1	15C	159 Park Ave	Foreclosure
32	7	15C	4 Sunset Dr	Well
47	7.32	15A	Off Quail Run	Sanitary Disposal
48	5	15A	303 Dover-Chester Rd	Ironia School
35	5	15C	385 Dover-Chester Rd	County Garage
35	50.05	15C	10 Patriots Way	Detention Basin
35	50.14	15C	Patriots Path	Patriots Path
35	65	15C	37 Ironia Mendham Rd	Vacant Land
38	54	15C	4 Burnett Brook Dr	Vacant Land
38.02	6	15C	9 Burnett Brook Dr	Vacant Land
40	4.34	15C	Shadowbrook Way	Vacant Land
40	4.36	15C	Shadowbrook Way	Vacant Land
40	4.37	15C	Shadowbrook Way	Vacant Land
40	4.38	15C	Shadowbrook Way	Vacant Land
40	7	15C	Off South Rd	Open Space
40	15	15C	Off South Rd	Open Space
42	3.01	15C	40 Bedminster Rd	Vacant Land
42	26	15C	97 Randolph Ave	Detention Basin
42	123	15C	164 Canfield Ave	Inspection Station
44	15	15C	723 Route 10	Vacant Land
44	57	15C	2 Sweetwood Dr	Detention Basin
46	1	15C	1425 Sussex Tpke	Park Land
46	13.02	15C	122 Morris Tpke	Detention Basin
46	28	15C	1411 Sussex Tpke	Retention Basin
47	1	15C	1428 Sussex Tpke	Vacant Land
47	7.30	15C	1392 Sussex Tpke	Dedicated Open Space
47	12.17	15C	Lake Cherokee	Vacant Land
47	27.13	15C	Nina Place	Stream Management
47	27.27	15C	24 Nina Pl	Detention Basin
47	27.28	15C	Nina Place	Stream Management
47	27.29	15C	Nina Place	Vacant Land
47	28.33	15C	India Brook & Calais Rd	Detention Basin
49	2	15C	112 Calais Rd	Vacant Land
49	3	15C	100 Calais Rd	Pavillion
49	8	15C	9 Farmstead Ct W	Vacant Land
50	3	15C	63 Dolly Bridge Rd	Open Space
51	7	15C	40 Doby Rd	Park
51	30	15C	126 South Rd	Park
52	1.01	15C	Doby Rd	Open Space
52	2.08	15C	Combs Hollow Rd	Vacant Land
53	1	15C	Wallace Brook	Morris County Park
*53	3	15C	Linwood Ave	Morris County Park
53	76.01	15C	Valley Rd	Draninage Easement
53	98	15C	Off Valley Dr	Morris County Park
53	99	15C	Off Dogwood Trl	Morris County Park
53	100	15C	Off Valley Dr	Morris County Park
54	5	15C	38 Center Rd	Well House
65	2	15C	24 Calumet Rd	Well House

73	14	15C	9 Guy St	Vacant Land
77	1	15C	124 Reservoir Ave	Vacant
80	10	15C	Birch St	Foreclosure
81	29.32	15C	30 Wilkeshire Blvd	Vacant Land
81	29.42	15C	10 Wilkeshire Blvd	Vacant Land
81	68	15C	103 Dover-Chester Rd	Vacant Land
81.03	14	15C	288 Center Grove Rd	Open Space
81.03	24	15C	Off Castle Ct	Detention Basin
81.03	37	15C	8 Tudor Pl	Vacant Land
82	27.02	15C	Off School House Rd	Vacant Land
82	38	15C	631 Millbrook Ave	Residence
82	50	15C	103 Carrell Rd	Club House
82	51	15C	99 Carrell Rd	Vacant Land
82	52	15C	75 Carrell Rd	Vacant Land
82	86	15C	287 Center Grove Rd	Vacant Land
82	89.02	15C	Center Grove Rd	Open Space
82	105	15C	7 Leigh Ct	Detention Basin
84	7	15C	55 Carrell Rd	Vacant Land
84	8	15C	57 Carrell Rd	Vacant Land
84	9	15C	57A Carrell Rd	Vacant Land
86	32	15C	Off Cypress Pl	Vacant Land
86	55	15C	60 Carrell Rd	Brundage Park
86	56	15C	60 Carrell Rd	Brundage Park
86	57	15C	74 Carrell Rd	Brundage Park
86	58	15C	84 Carrell Rd	Vacant Land
86	61	15C	25 Church Rd	Vacant Land
86	62	15C	Off Church Rd	Brundage Park
86	63.02	15C	1275 Sussex Tpke	Vacant Land
86	64	15C	Off Church Rd	Brundage Park
86	65	15C	Sussex Turnpike	Brundage Park
86	66	15C	1313 Sussex Tpke	Vacant Land
86	72.02	15C	1339 Sussex Tpke	Vacant Land
86	72.03	15C	1341 Sussex Tpke	Vacant Land
86	73	15C	1345 Sussex Tpke	Township Garage
86	74	15C	151 Morris Tpke	Maintenance Bldg.
86	75	15C	147 Morris Tpke	Vacant Land
88	7.10	15C	1318 Sussex Tpke	Vacant Land
88	12	15C	Off Sussex Tpke	Vacant Land
91	2	15C	14 Tucker Ave	Vacant Land
91	3	15C	8 Tucker Ave	Vacant Land
92	4	15C	1304 Sussex Tpke	Vacant Land
92	24	15C	9 Tucker Ave	Vacant Land
92	25	15C	13 Tucker Ave	Public Housing
93	3	15C	30 Calais Rd	Library
93	20	15C	32A Old Brookside Rd	Water Storage Tank
93	21.01	15C	32B Old Brookside Rd	Vacant Land
93	38.27	15C	Heritage Ct - Off In Back	Vacant Land
93	39	15C	Off Old Brookside Rd	Vacant Land
93	40	15C	Off Old Brookside Rd	Vacant Land

93	52	15C	Morris Tpke	Stream Management
93	56.01	15C	213 Morris Tpke	Public Housing
93.02	1	15C	3 Dolly Bridge Rd	Vacant Land
93.03	8	15C	Calais Rd / Sussex Tpke	Detention Basin
97	30.29	15C	Valley Rd	Vacant Land
103	72	15C	17 Wick Ln	Vacant Land
103	103	15C	19 Wick Ln	Vacant Land
103	105	15C	25 Wick Ln	Vacant Land
112	16	15C	389 Route 10	Gas Station
112.01	52	15C	Robin Dr	Water Plant
113	1	15C	Center Grove Rd	Vacant Land
115	3	15C	343 Millbrook Ave	Public Housing
115	7	15C	Off Millbrook Ave	Vacant Land
115	25.02	15C	421 Millbrook Ave	Open Space
115	68.01	15C	Center Grove Rd	Vacant Land
115	76.01	15C	15 Fords Rd	Vacant Land
115	76.04	15C	17 Fords Rd	Vacant Land
115	80.02	15C	Off Fords Rd	Vacant Land
115	83	15C	Off Cambridge Ct	Vacant Land
115	84	15C	43 Fords Rd	Open Space
116	31.01	15C	555 Millbrook Ave	Vacant Land
116	32	15C	565 Millbrook Ave	Residence
119	2	15C	112 Everdale Rd	Park Land
119	3	15C	110 Everdale Rd	Park Land
119	5	15C	108 Everdale Rd	Utility Bldg.
119	14.13	15C	8 Rebecca Ct	Detention Basin
119	14.30	15C	Rebecca Ct	Open Space
119	76	15C	73 Radtke Rd	Park Land
119	79	15C	111 Radtke Rd	Park Land
119	83	15C	123 Radtke Rd	Park Land
119	84	15C	135 Radtke Rd	Park Land
119	85	15C	167 Radtke Rd	Park Land
119	91.50	15C	31 W Hanover Ave	Open Space
119	95	15C	Off W Hanover Ave	Park Land
119	96	15C	Off W Hanover Ave	Park Land
119	97	15C	Off W Hanover Ave	County Park
119	98	15C	Off W Hanover Ave	County Park
119	99	15C	Radtke Rd	Park Land
119	100	15C	Off W Hanover Ave	Park Land
119	101.01	15C	Off Millbrook Ave	Open Space
119	115.01	15C	630 Millbrook Ave	Residence
119	115.02	15C	Millbrook Ave	Open Space
119	116.01	15C	620 Millbrook Ave	Open Space
119	118	15C	554 Millbrook Ave	Park Land
119	119	15C	502 Millbrook Ave	Town Hall
119	121	15C	496 Millbrook Ave	Public Housing
119	122	15C	488 Millbrook Ave	Public Housing
119	124	15C	Off Everdale Rd	Park Land
119	129	15C	Off Everdale Rd	Park Land

119	145	15C	22 Bragman Rd	Detention Basin
121	68.01	15C	2 Laurel Hill Dr	Vacant Land
131	51.16	15C	4 Dyer Ln	Detention Basin
131.01	7	15C	Fairfield Ave	Detention Basin
135	5	15C	10 Fairlawn Ave	Foreclosure
137	1	15C	216 Millbrook Ave	Residence
137	3	15C	222 Millbrook Ave	For Millbrook Circle
142	5	15C	High St	Water Line
142	19.01	15C	19 Grist Mill Rd	Vacant Land
142	28	15C	Hill St	Vacant Land
145	51	15C	87 Grist Mill Rd	Vacant Land
146	42.02	15C	71 Mountainside Dr	Open Space
146	45.02	15C	Off Mountainside Dr	Vacant Land
146	72.03	15C	Skyline Dr	Vacant Land
146	72.11	15C	40 Piersons Hill Rd	Vacant Land
146	72.16	15C	Skyline Dr	Vacant Land
146	72.31	15C	Skyline Dr	Vacant Land
146	79.02	15C	Piersons Hill Rd	Vacant Land
147	1	15C	1 Piersons Hill Rd	Vacant Land
147	14	15C	107 Everdale Rd	Vacant Land
155	18	15C	79 W Hanover Ave	County Park
155	59	15C	89 W Hanover Ave	County Park
155	60	15C	89A W Hanover Ave	County Park
155	61	15C	71 W Hanover Ave	County Park
155	62	15C	180 Radtke Rd	County Park
155	63	15C	51 W Hanover Ave	County Park
166	1	15C	50 W Hanover Ave	Forest
166	3	15C	119 W Hanover Ave	Park Land
166	4.14	15C	Off Block Ct	Vacant Land
166	15.08	15C	1127 Sussex Tpke	Detention Facility
168	87	15C	140 W Hanover Ave	Open Space
168	106	15C	Forrest Hill Rd	Vacant Land
176	40	15C	Off Shady Ln	Vacant Land
191	7	15C	11-19 Bennett Ave	Housing
195	1	15C	202 S Salem St	Vacant Land
195	3	15C	8 Bennett Ave	Public Housing
195	18	15C	80 Route 10	Vacant Land
195	25	15C	232 S Salem St	Park
198	1	15C	87 Route 10	Vacant Land
199	1	15C	217 Route 10	Vacant Land
199	46.17	15C	100 Mountainside Dr	Open Space
199.02	34.04	15C	Off Roc Etam Rd	Drainage
201	37.11	15C	22 Heather Ln	Drainage
201	43	15C	1 Openaki Rd	Vacant Land
201	48	15C	4 Farm Rd	Vacant Land
208.02	119.37	15C	16 Timber Ln	Park
212	1	15C	167 W Hanover Ave	Well
215	29	15C	190 W Hanover Ave	Park & County Radio
215	73	15C	1015 Sussex Tpke	Pumping Station

217	8.01	15C	Chestnut Hill Rd	Vacant Land
217	17.01	15C	Cottonwood Dr	Vacant Land
221	49	15C	16 Drake Ct	Detention Basin
222	7	15C	25 Drake Ct	Vacant Land
222	8	15C	23 Drake Ct	Detention Basin
222	11.01	15C	7A Mount Pleasant Rd	Vacant Land
224	16	15C	15 Musiker Ave	Well
224	23	15C	5 Leonard Ln	Vacant Land
224	24	15C	2 Sylvia Pl	Vacant Land
224	32	15C	17 Knights Bridge Dr	Recreation Area
224	34	15C	9 Knights Bridge Dr	Detention Basin
224	35	15C	7 Knights Bridge Dr	Pump. Station
224	78	15C	47 Brookside Rd	Retention Basin
1706	24	15C	W Munson Ave	Shed
*10102	7	15C	13 Black Birch Dr	Pond
23	8	15D	4 East Logan Rd	Vacant Land
23	9	15D	2 East Logan Rd	Parsonage
23	10	15D	298 Dover-Chester Rd	Church
33	51	15D	186 Park Ave	Church
35	28	15D	17 Pamela Dr	Group Residence
42	95	15D	23 Gilmar Rd	Parsonage
42	97	15D	764 Route 10/44 Fernia Dr	Church
42	109	15D	790 Route 10	Church
44	13.01	15D	791 Route 10	2.89 Ac Is Taxable
44	19	15D	120 Dover-Chester Rd	Church
44	31.01	15D	146 Dover-Chester Rd	Schools
45	21	15D	220 Dover-Chester Rd	Church
45	25	15D	1447 Sussex Tpke	Church
47	40	15D	267 Dover-Chester Rd	Parsonage
49	2.01	15D	335 Dover-Chester Rd	Church
50	6	15D	140 Combs Hollow Rd	Autism House
53	44	15D	45 High Ave	Group Home
55	1	15D	443 Quaker Church Rd	Church
73	56	15D	6 Emery Ave	Church
73	58	15D	10 Emery Ave	Parking Area
73	59	15D	12 Emery Ave	Church
77	35	15D	318 Quaker Church Rd	Church
78	3	15D	319 Quaker Church Rd	Church
82	30	15D	40 School House Rd	Health & Welfare
82	40	15D	651 Millbrook Ave	Catholic Church
82	48	15D	107 Carrell Rd	Parsonage
93	14	15D	12 Old Brookside Rd	Church
97	1	15D	1253 Sussex Tpke	Church
97	1	15D	16 Church Rd	Church
97	23	15D	1207 Sussex Tpke	Synagogue
97	24	15D	1209 Sussex Tpke	Vacant Land
103	17	15D	1 Nuko Ter	Rabbi Residence
111	22.06	15D	390 Route 10	Church Offices
115	74	15D	185 Center Grove Rd	Church

119	114.03	15D	658 Millbrook Ave	Church
131	55	15D	2 Quaker Ave	Church
141	11	15D	343 S Morris St	Parsonage
141	12	15D	367 S Morris St	Church
145	58	15D	246 Millbrook Ave	Church
166	1.01	15D	48 W Hanover Ave	Rabbi Residence
176	82	15D	18 Cedar Ter	NJ Dept. Group Home
180	1	15D	322 S Morris St	Christadel Ecclesia
3	3	15F	1579 Sussex Tpke	Office
21.05	129	15F	13 Orchard Dr	Disabled Veteran
27	5	15F	86 Pleasant Hill Rd	Disabled Veteran
27	66	15F	14 Seneca Trl	Disabled Veteran
38	60	15F	20 Cromwell Dr	Disabled Veteran
38.01	21	15F	11 South Rd	Disabled Veteran
42	107	15F	780 Route 10	Rescue Squad
42	110	15F	800 Route 10	Disabled Veteran
42	122.02	15F	100 Canfield Ave	Girls Scouts Of Amer
42.06	66	15F	26 Dover-Chester Rd	Morris County Ymca
46.01	38	15F	106 Morris Tpke	Disabled Veteran
49	2.02	15F	331 Dover-Chester Rd	Chemical Co. # 4
59	6	15F	28 Treaty Rd	Disabled Veteran
60	6	15F	34 Ridge Rd	Disabled Veteran
60	11	15F	37 Treaty Rd	Disabled Veteran
81	29.31	15F	32 Wilkeshire Blvd	Vacant Land
81.03	10	15F	15 Rippling Brook Way	Disabled Veteran
82	49	15F	105 Carrell Rd	Disabled Veteran
86	10	15F	40 Carrell Rd	Disabled Veteran
101	22.01	15F	108 Albert Ct	Disabled Veteran
119	102.02	15F	9&10 Westminster Dr	Disabled Veteran
119	110.68	15F	5 Mahogany Way	Disabled Veteran
119	114.01	15F	670 Millbrook Ave	Volunteer Fire Co
120	5	15F	24 W Hanover Ave	Vacant Land
120	5.01	15F	26 W Hanover Ave	Synagogue
121	52	15F	1100 Sussex Tpke	Disabled Veteran
137	6	15F	99 Quaker Church Rd	Fire House
137	8	15F	340 Route 10	Fire House #2
145	12	15F	119 High St	Disabled Veteran
146	38	15F	51 Mountainside Dr	Disabled Veteran
148	17	15F	17 Winding Way	Disabled Veteran
161	8	15F	19 Forrest Rd	Disabled Veteran
167	1	15F	118 W Hanover Ave	Fire House #5
184	6.01	15F	601 Wendover Ct	Disabled Veteran
220	16	15F	57 Misty Mountain Rd	Disabled Veteran
220	27	15F	31 Ash Ln	Disabled Veteran

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

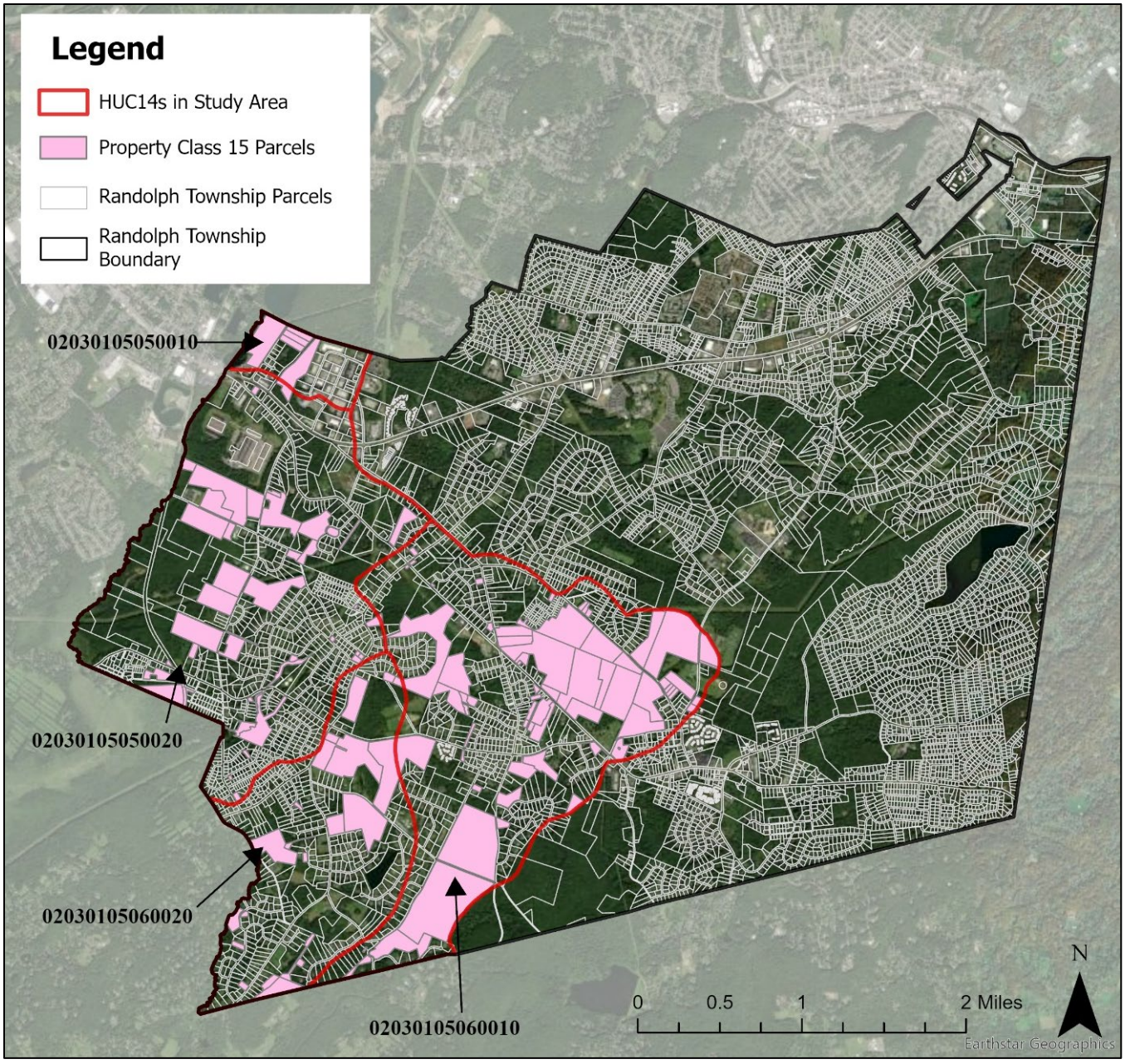


Figure 11: Property Class 15 parcels in the Study Area of Randolph Township

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

Block	Lot	Prop Class	Location	Facility Type
47	7.32	15A	Off Quail Run	Sanitary Disposal
***48**	**5**	**15A**	**303 Dover-Chester Rd**	**Ironia School**
1	2	15C	43 Green Ln	Randolph Park
2	1	15C	76 Green Ln	Randolph Park
2	2	15C	68 Green Ln	Vacant Land
2	3	15C	64 Green Ln	Vacant Land
5	19	15C	41 Park Ave	Day Camp
5	22	15C	15 Righter Rd	Open Space
5	23	15C	45 Righter Rd	Vacant Land
5	26	15C	55A Righter Rd	Open Space
6	16	15C	49 Pleasant Hill Rd	Vacant Land
6	26	15C	111 Park Ave	Open Space
6	27.01	15C	57 Pleasant Hill Rd	Mua Easement
6	42	15C	83 Park Ave	Vacant Land
6	43	15C	75 Park Ave	Vacant Land
6	52	15C	18 Righter Rd	Vacant Land
6	53	15C	34 Righter Rd	Open Space
14	2.01	15C	147 Selma Blvd	Vacant Land
14	9	15C	Pleasant Hill Rd	Vacant Land
14	11	15C	9 Chester Ave	Well
14	27	15C	Off Selma Blvd	Vacant Land
18.01	1	15C	80 Irish Spring Rd	Vacant Land
21	19.15	15C	11 Nottingham Way	Dedicated Open Space
21	20	15C	1466 Sussex Tpke	Open Space
21	32.08	15C	Sherwood Ct	Open Space
21	39	15C	5 Stonehill Rd	Well
21	127.01	15C	110 Park Ave	Open Space
21	129	15C	Park Ave	Vacant Land
21	130.02	15C	72 Park Ave	Open Space
21	142	15C	18 James Rd	Open Space
21	149	15C	34 Park Ave	Camp
21	150.02	15C	32 Park Ave	Vacant Land
21.05	152	15C	Pleasant Hill Rd	Vacant Land
21.10	1	15C	Nottingham Way	Dedicated Open Space
23	18	15C	18 Aldebaran Dr	Vacant Land
27	5.08	15C	Off Spring Brook Dr	Vacant Land
27	6	15C	88A Pleasant Hill Rd	Vacant Land
27	8	15C	Dover-Chester Rd	Vacant Land
27	86.02	15C	152.5 Park Ave	Vacant Land
30	1	15C	159 Park Ave	Foreclosure
32	7	15C	4 Sunset Dr	Well
35	5	15C	385 Dover-Chester Rd	County Garage
35	50.05	15C	10 Patriots Way	Detention Basin
35	50.14	15C	Patriots Path	Patriots Path
35	65	15C	37 Ironia Mendham Rd	Vacant Land
38	54	15C	4 Burnett Brook Dr	Vacant Land

38.02	6	15C	9 Burnett Brook Dr	Vacant Land
40	4.34	15C	Shadowbrook Way	Vacant Land
40	4.36	15C	Shadowbrook Way	Vacant Land
40	4.37	15C	Shadowbrook Way	Vacant Land
40	4.38	15C	Shadowbrook Way	Vacant Land
40	7	15C	Off South Rd	Open Space
40	15	15C	Off South Rd	Open Space
42[2]	123	15C	164 Canfield Ave	Inspection Station
46	1	15C	1425 Sussex Tpke	Park Land
46	13.02	15C	122 Morris Tpke	Detention Basin
46	28	15C	1411 Sussex Tpke	Retention Basin
47	1	15C	1428 Sussex Tpke	Vacant Land
47	7.30	15C	1392 Sussex Tpke	Dedicated Open Space
47	12.17	15C	Lake Cherokee	Vacant Land
47	27.13	15C	Nina Place	Stream Management
47	27.27	15C	24 Nina Pl	Detention Basin
47	27.28	15C	Nina Place	Stream Management
47	27.29	15C	Nina Place	Vacant Land
47	28.33	15C	India Brook & Calais Rd	Detention Basin
49	2	15C	112 Calais Rd	Vacant Land
49	3	15C	100 Calais Rd	Pavillion
49	8	15C	9 Farmstead Ct W	Vacant Land
50	3	15C	63 Dolly Bridge Rd	Open Space
***51[1]**	**7**	**15C**	**40 Doby Rd**	**Park**
***51[1]**	**30**	**15C**	**126 South Rd**	**Park**
52	1.01	15C	Doby Rd	Open Space
52	2.08	15C	Combs Hollow Rd	Vacant Land
82[2]	38	15C	631 Millbrook Ave	Residence
82	50	15C	103 Carrell Rd	Club House
82	51	15C	99 Carrell Rd	Vacant Land
82[2]	52	15C	75 Carrell Rd	Vacant Land
82	89.02	15C	Center Grove Rd	Open Space
84	7	15C	55 Carrell Rd	Vacant Land
84	8	15C	57 Carrell Rd	Vacant Land
84	9	15C	57A Carrell Rd	Vacant Land
86	32	15C	Off Cypress Pl	Vacant Land
86	55	15C	60 Carrell Rd	Brundage Park
86	**56**	**15C**	**60 Carrell Rd**	**Brundage Park**
86	57	15C	74 Carrell Rd	Brundage Park
86	58	15C	84 Carrell Rd	Vacant Land
86	61	15C	25 Church Rd	Vacant Land
86	62	15C	Off Church Rd	Brundage Park
86	63.02	15C	1275 Sussex Tpke	Vacant Land
86	64	15C	Off Church Rd	Brundage Park
86	65	15C	Sussex Turnpike	Brundage Park
86	66	15C	1313 Sussex Tpke	Vacant Land
86	72.02	15C	1339 Sussex Tpke	Vacant Land
86	72.03	15C	1341 Sussex Tpke	Vacant Land
86	73	15C	1345 Sussex Tpke	Township Garage

86	74	15C	151 Morris Tpke	Maintenance Bldg.
86	75	15C	147 Morris Tpke	Vacant Land
88	7.10	15C	1318 Sussex Tpke	Vacant Land
88	12	15C	Off Sussex Tpke	Vacant Land
91	2	15C	14 Tucker Ave	Vacant Land
91	3	15C	8 Tucker Ave	Vacant Land
92	4	15C	1304 Sussex Tpke	Vacant Land
92	24	15C	9 Tucker Ave	Vacant Land
92	25	15C	13 Tucker Ave	Public Housing
***93**	**3**	**15C**	**30 Calais Rd**	**Library**
93[2]	20	15C	32A Old Brookside Rd	Water Storage Tank
93	38.27	15C	Heritage Ct - Off In Back	Vacant Land
93[2]	39	15C	Off Old Brookside Rd	Vacant Land
93	52	15C	Morris Tpke	Stream Management
93	56.01	15C	213 Morris Tpke	Public Housing
93.02	1	15C	3 Dolly Bridge Rd	Vacant Land
93.03	8	15C	Calais Rd / Sussex Tpke	Detention Basin
***119[2]**	**115.01**	**15C**	**630 Millbrook Ave**	**Residence**
119[2]	115.02	15C	Millbrook Ave	Open Space
23	8	15D	4 East Logan Rd	Vacant Land
23	9	15D	2 East Logan Rd	Parsonage
23	10	15D	298 Dover-Chester Rd	Church
33	51	15D	186 Park Ave	Church
35	28	15D	17 Pamela Dr	Group Residence
45	21	15D	220 Dover-Chester Rd	Church
45	25	15D	1447 Sussex Tpke	Church
47	40	15D	267 Dover-Chester Rd	Parsonage
49	2.01	15D	335 Dover-Chester Rd	Church
50	6	15D	140 Combs Hollow Rd	Autism House
***82**	**40**	**15D**	**651 Millbrook Ave**	**Catholic Church**
82	48	15D	107 Carrell Rd	Parsonage
97	1	15D	1253 Sussex Tpke	Church
97[2]	1	15D	16 Church Rd	Church
119[2]	114.03	15D	658 Millbrook Ave	Church
3	3	15F	1579 Sussex Tpke	Office
21.05	129	15F	13 Orchard Dr	Disabled Veteran
27	5	15F	86 Pleasant Hill Rd	Disabled Veteran
27	66	15F	14 Seneca Trl	Disabled Veteran
38	60	15F	20 Cromwell Dr	Disabled Veteran
38.01	21	15F	11 South Rd	Disabled Veteran
42	122.02	15F	100 Canfield Ave	Girls Scouts Of Amer
46.01	38	15F	106 Morris Tpke	Disabled Veteran
***49**	**2.02**	**15F**	**331 Dover-Chester Rd**	**Chemical Co. # 4**
82	49	15F	105 Carrell Rd	Disabled Veteran
86[1,2]	10	15F	40 Carrell Rd	Disabled Veteran
***119[2]**	**114.01**	**15F**	**670 Millbrook Ave**	**Volunteer Fire Co**

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

[1]Site includes two tax-exempt parcels

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

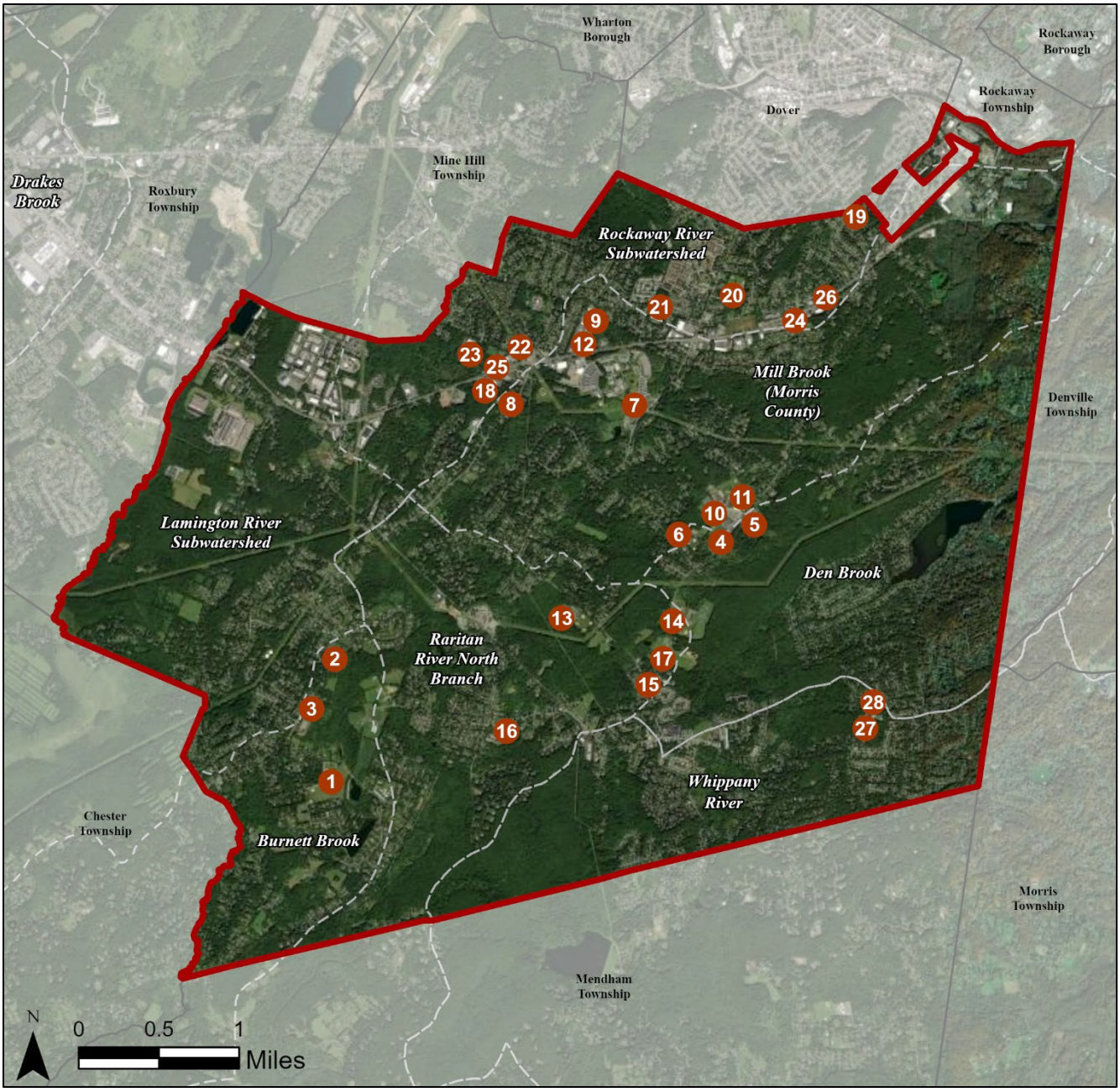


Figure 12: Sites with Green Infrastructure Opportunities in Randolph Township

HEISTEIN PARK

RAP ID: 1

Subwatershed: Burnett Brook

Site Area: 1,849,597 sq. ft.

Address: Heistein Park Road
Randolph, NJ 07869

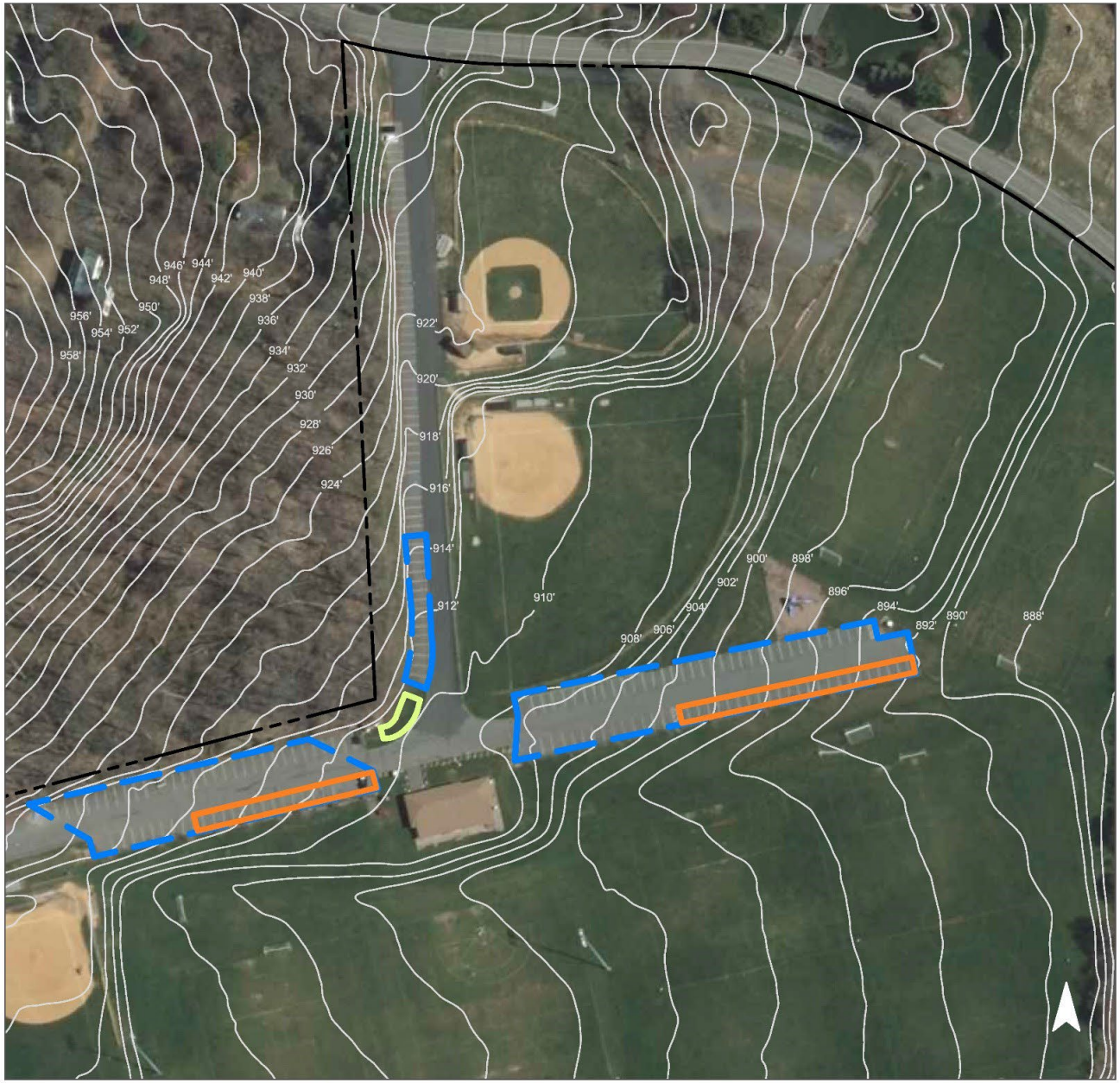
Block and Lot: Block 51 | Lot 7,30

A bioretention system can be installed in the parking lot bump out to treat the parking lot drainage area. Pervious pavement can be installed in the east and west strips of the parking lot to manage additional 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"
9	174,724	8.4	88.2	802.2	0.136	4.79

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 system	0.078	13	6,110	0.23	750	$3,750
Pervious pavement	1.091	183	85,230	3.20	7,520	$188,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Heistein Park

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

0 75' 150'

IRONIA ELEMENTARY SCHOOL

RAP ID: 2

Subwatershed: Burnett Brook

Site Area: 653,414 sq. ft.

Address: 303 Dover Chester Road
Randolph, NJ 07869

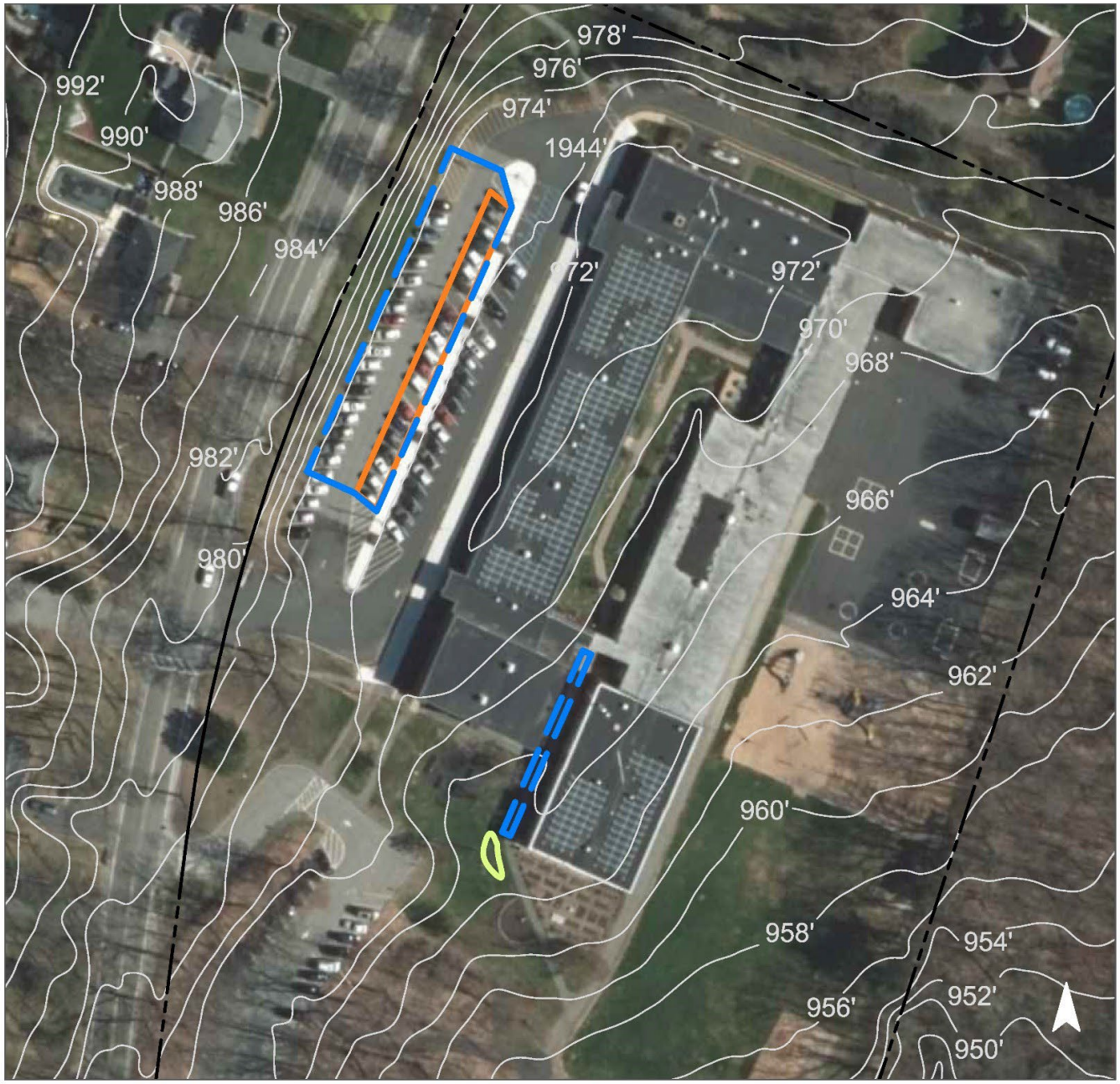
Block and Lot: Block 48 | Lot 5

A bioretention system can be created at the south end the building to capture, treat, and infiltrate the building's stormwater runoff. Pervious pavement can be installed in a strip of parking spaces to treat 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"
38	247,317	11.9	124.9	1,135.5	0.193	6.78

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	0.020	3	1,590	0.06	200	$1,000
Pervious pavement	0.312	52	24,350	0.92	3,925	$98,125

GREEN INFRASTRUCTURE RECOMMENDATIONS



Ironia Elementary School

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

0 50' 100'

RANDOLPH TOWNSHIP FIRE DEPARTMENT COMPANY #4

RAP ID: 3

Subwatershed: Burnett Brook

Site Area: 100,313 sq. ft.

Address: 331 Dover Chester Road
Randolph, NJ 07869

Block and Lot: Block 49 | Lot 2.02

A bioretention system can be installed in the east and south turfgrass areas to capture, treat, and infiltrate the runoff from the parking area. Additionally, a cistern can be installed on the northeast corner of the building to capture the rooftop drainage area that can be reused to wash the fire trucks and water the existing landscaping. 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"
67	67,102	3.2	33.9	308.1	0.052	1.84

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	0.231	39	18,060	0.68	2,220	$55,500
Rainwater harvesting	0.066	11	2,000	0.07	2,000 (gal)	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

Randolph Township Fire Department Company #4

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

0 30' 60'

JOHN DASILVA MEMORIAL FIELD

RAP ID: 4

Subwatershed: Den Brook

HUC14 ID: 02030103020010

Site Area: 453,633 sq. ft.

Address: 555 Millbrook Avenue
Randolph, NJ 07869

Block and Lot: Block 116, Lots 31 & 31.01

A rain garden can be installed to the northeast of the garage to capture, treat, and infiltrate the stormwater runoff from the rooftop. This will require disconnecting downspouts. The existing parking spaces to the west of the entry driveway and in the western lot can be converted into pervious pavement to capture and infiltrate the stormwater runoff from the asphalt. 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 50"
40	181,313	8.7	91.6	832.5	0.141	5.65

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	2,295	0.068	10	4,790	0.18	575	$5,750
Pervious pavement	25,940	0.768	114	54,100	2.03	7,595	$189,875

GREEN INFRASTRUCTURE RECOMMENDATIONS

John DaSilva Memorial Field

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

0 50' 100'

RANDOLPH TOWNSHIP RECREATION

RAP ID: 5

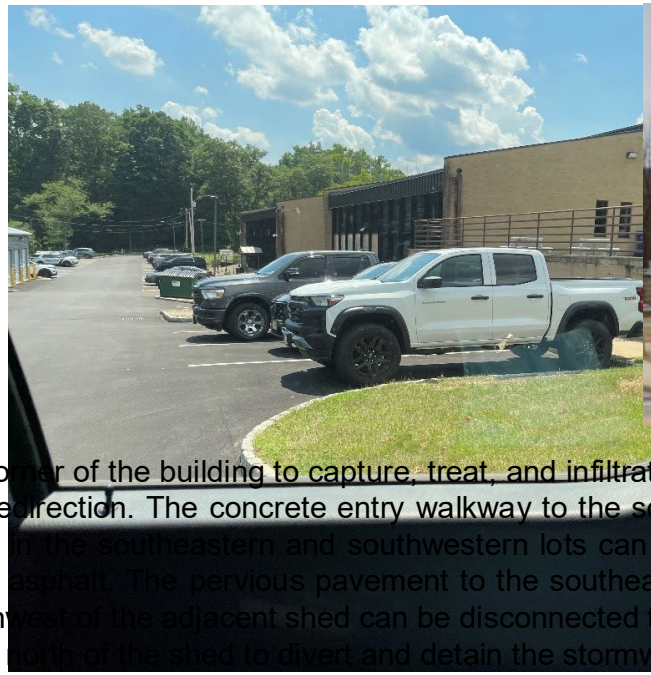
Subwatershed: Den Brook

HUC14 ID: 02030103030120

Site Area: 847,700 sq. ft.

Address: 502 Millbrook Avenue
Randolph, NJ 07869

Block and Lot: Block 119, Lot 119



A rain garden can be installed to the northeast corner of the building to capture, treat, and infiltrate the stormwater runoff from the rooftop. This will require downspout disconnection and redirection. The concrete entry walkway to the southwest of the building can be replaced with permeable pavers. Existing parking spaces in the southeastern and southwestern lots can be converted into pervious pavement to capture and infiltrate stormwater runoff from the asphalt. The pervious pavement to the southeast will require a trench drain to intercept and redirect runoff. The downspouts on the southwest of the adjacent shed can be disconnected to the porous pavement to manage runoff from the rooftop. A cistern can be installed to the north of the shed to divert and detain the stormwater runoff from the rooftop for later non-potable reuse such as washing township vehicles. 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 50"
21	181,641	8.8	91.7	834.0	0.142	5.66

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	430	0.013	2	900	0.03	110	$1,100
Pervious pavement	20,035	0.593	87	41,790	1.57	6,390	$159,750
Rainwater harvesting	575	0.017	2	500	0.02	500 (gal)	$1,500

GREEN INFRASTRUCTURE RECOMMENDATIONS

Randolph Township Recreation

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

0 30' 60'

CENTER GROVE ELEMENTARY SCHOOL

RAP ID: 6

Subwatershed: Den Brook

Site Area: 886,920 sq. ft.

Address: 25 Schoolhouse Road
Randolph, NJ 07869

Block and Lot: Block 116 | Lot 34

Pervious pavement can be installed in parking spaces throughout the site to capture and infiltrate stormwater runoff from the parking lot and adjacent rooftops. A rain garden can be installed in the area to the south of the building to capture additional stormwater from the rooftop by redirecting downspouts into it. 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"
34	302,005	14.6	152.5	1,386.6	0.235	8.28

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	0.092	15	7,210	0.27	885	$22,125
Pervious pavement	0.996	167	77,850	2.93	1,980	$49,500

GREEN INFRASTRUCTURE RECOMMENDATIONS

Center Grove Elementary School

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

0 50' 100'

COUNTY COLLEGE OF MORRIS

RAP ID: 7

Subwatershed: Mill Brook

Site Area: 9,259,582 sq. ft.

Address: 214 Center Grove Road
Randolph, NJ 07869

Block and Lot: Block 81 | Lot 1

A bioretention system can be installed at the east end of the parking lot adjacent to Henderson Hall to treat the parking lot's drainage area. Pervious pavement can be installed in parking spaces throughout the campus to manage the large amount of stormwater runoff generated by the parking lot areas. 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"
27	2,484,265	119.8	1254.7	11,406.2	1.936	68.14

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	0.417	70	32,580	1.22	4,000	$20,000
Pervious pavement	8.189	1,371	639,940	24.05	60,800	$1,520,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

County College of Morris

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

0 150' 300'

HOLY TRINITY ORTHODOX CHURCH

RAP ID: 8

Subwatershed: Mill Brook

HUC14 ID: 02030103030080

Site Area: 199,885 sq. ft.

Address: 120 Dover Chester Road
Randolph, NJ 07869

Block and Lot: Block 44, Lot 19

Existing parking spaces to the north and southwest of the building can be converted into pervious pavement to capture and infiltrate the stormwater runoff from the asphalt. The pervious pavement to the north of the building will also manage rooftop runoff. A trench drain will be needed to intercept and redirect the water to the southwestern 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 50"
21	41,923	2.0	21.2	192.5	0.033	1.31

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
Pervious pavement	22,615	0.670	99	47,170	1.77	4,870	$121,750

GREEN INFRASTRUCTURE RECOMMENDATIONS

Holy Trinity Orthodox Church

- pervious pavement
- captured drainage area
- property line
- 2020 Aerial: NJOIT, OGIS

0 25' 50'

IGLESIA ALIANZA

RAP ID: 9

Subwatershed: Mill Brook

Site Area: 93,605 sq. ft.

Address: 12 Emery Avenue
Randolph, NJ 07869

Block and Lot: Block 73, Lot 58, 59

Parking spaces at the southeast end of the parking lot can be converted to pervious pavement to capture and infiltrate stormwater 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"
53	49,950	2.4	25.2	229.3	0.039	1.37

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	0.263	44	20,530	0.77	1,800	$45,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

Iglesia Alianza

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

0 25' 50'

RANDOLPH HIGH SCHOOL

RAP ID: **10**

Subwatershed: **Mill Brook**

Site Area: **1,241,714 sq. ft.**

Address: **511 Millbrook Avenue**
Randolph, NJ 07869

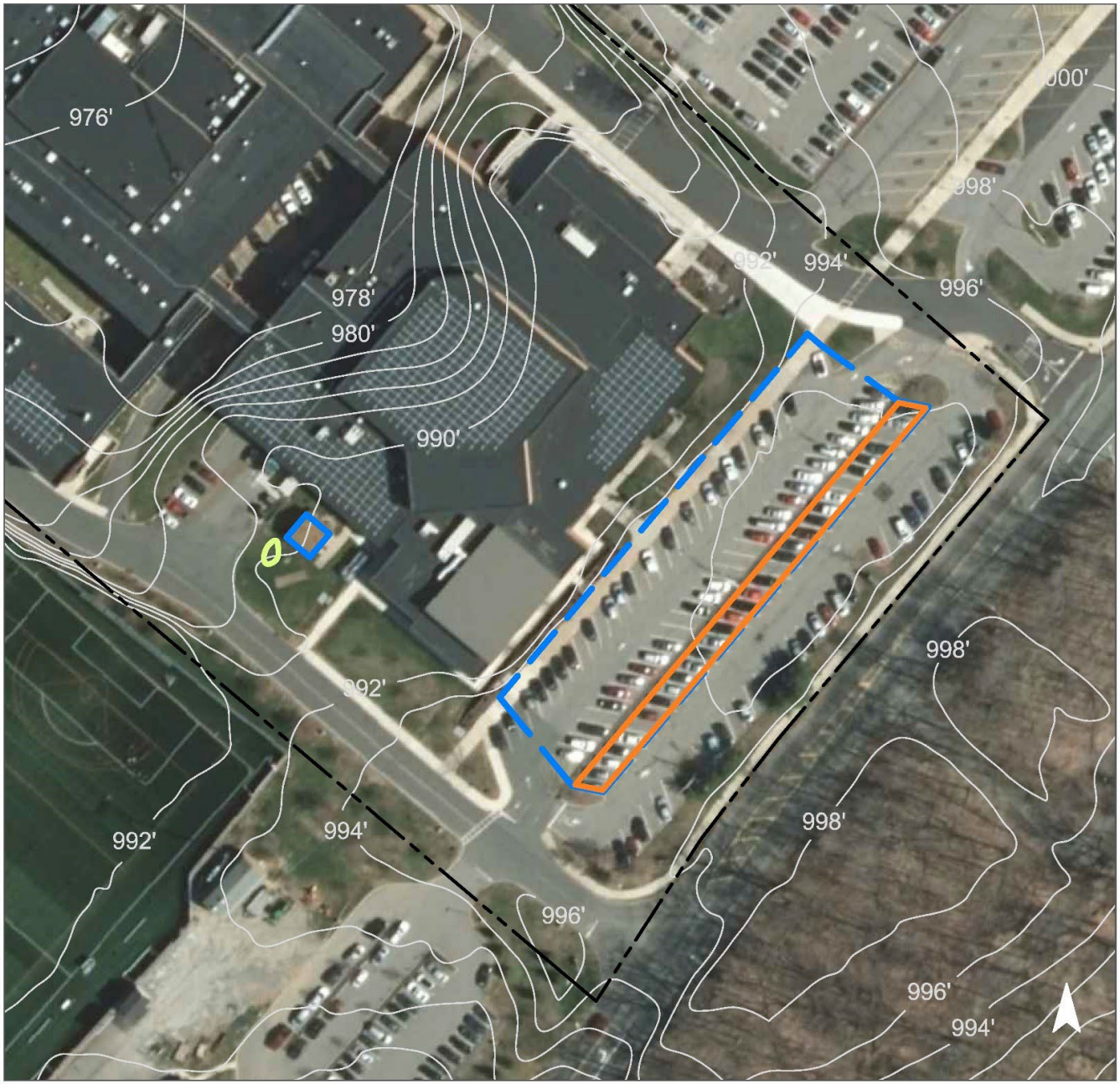
Block and Lot: **Block 116 | Lot 30**

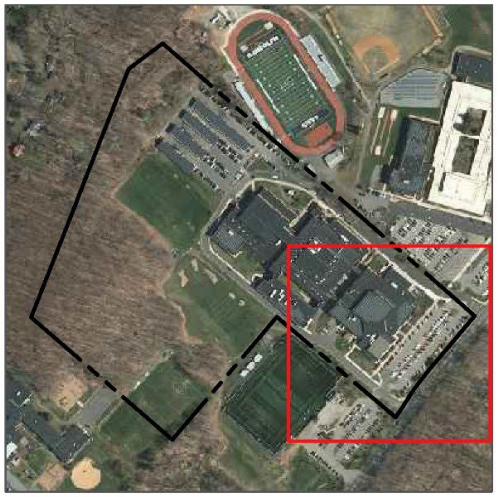
Parking spaces in the parking lot to the southeast of the building can be converted to pervious pavement to capture and infiltrate stormwater runoff from the parking lot. Additional parking spaces throughout the site could be retrofitted as well. A small bioretention system can be installed adjacent to the shed to manage the 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"
47	584,321	28.2	295.1	2,682.8	0.455	16.03

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.010	2	820	0.03	100	$500
Pervious pavement	0.771	129	60,270	2.26	5,940	$148,500

GREEN INFRASTRUCTURE RECOMMENDATIONS





Randolph High School

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

0 50' 100'

RANDOLPH MIDDLE SCHOOL

RAP ID: 11

Subwatershed: Mill Brook

HUC14 ID: 02030103030080

Site Area: 1,301,901 sq. ft.

Address: 507 Millbrook Avenue
Randolph, NJ 07869

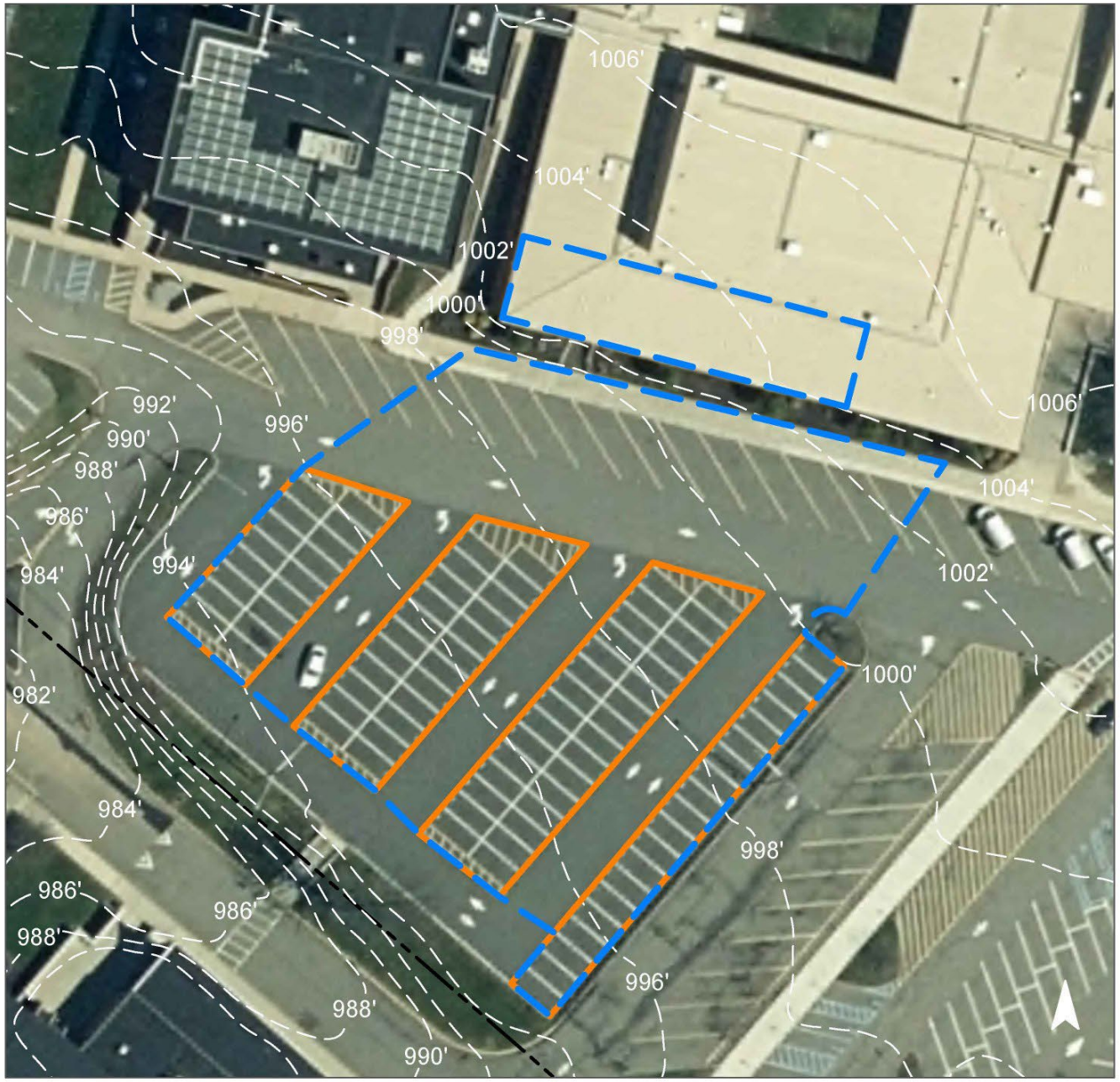
Block and Lot: Block 116, Lot 28

The existing parking spaces to the south of the school can be converted into pervious pavement to capture and infiltrate the stormwater runoff from the asphalt. Trench drains will be required. The downspouts on the southern side of the building can also be disconnected to the pervious pavement to manage 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 50"
50	657,085	31.7	331.9	3,016.9	0.512	20.48

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
Pervious pavement	45,790	1.356	200	95,510	3.59	18,005	$450,125

GREEN INFRASTRUCTURE RECOMMENDATIONS



Randolph Middle School

- pervious pavement
- captured drainage area
- property line
- 2020 Aerial: NJOIT, OGIS

0 30' 60'

THE CONNECT CHURCH: RANDOLPH

RAP ID: 12

Subwatershed: Mill Brook

Site Area: 75,871 sq. ft.

Address: 6 Emery Avenue
Randolph, NJ 07869

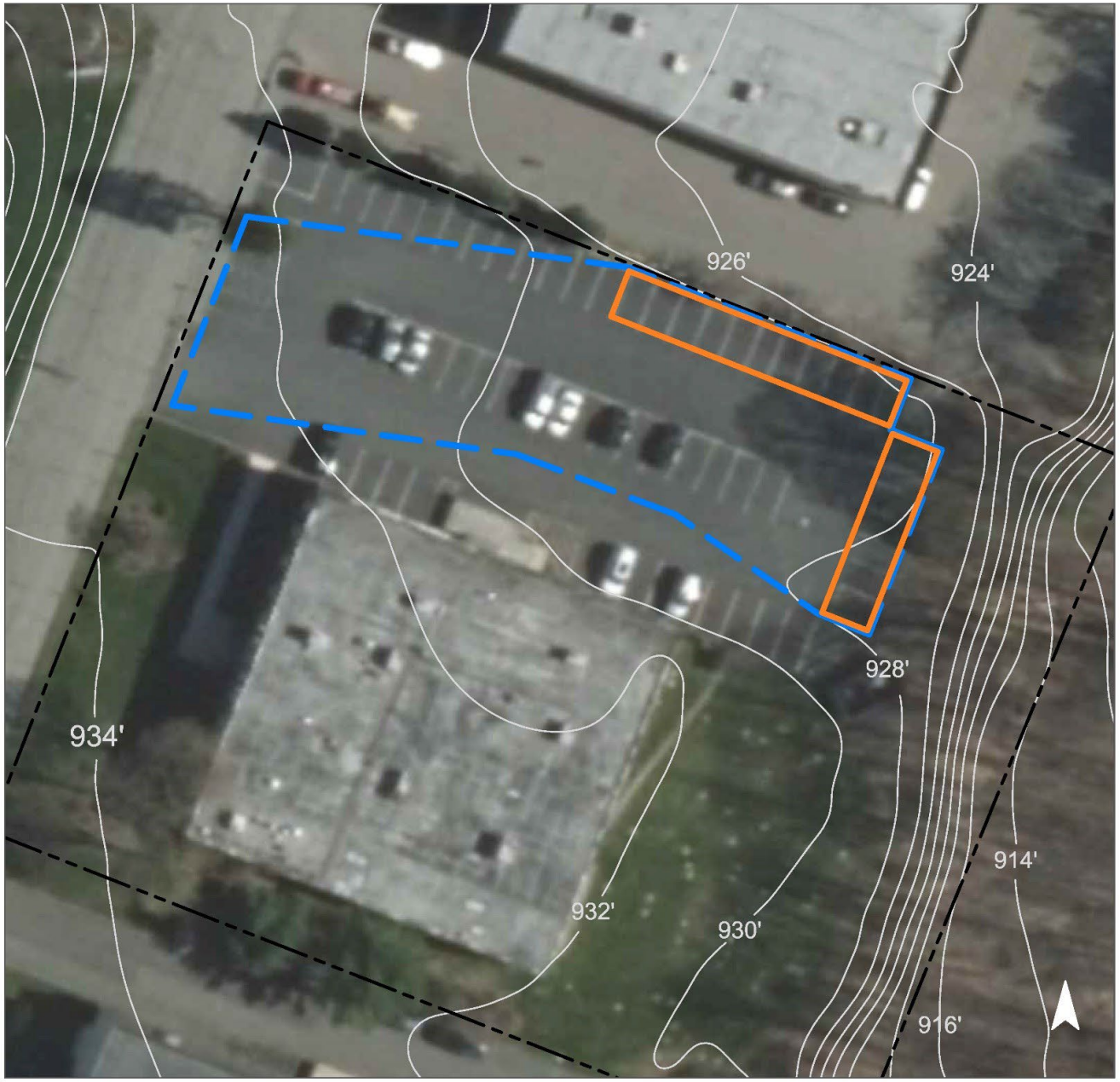
Block and Lot: Block 73 | Lot 56

Pervious pavement can be installed in the northeast portion of the parking lot to capture and infiltrate stormwater runoff from the parking area. 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"
62	47,152	2.3	23.8	216.5	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
Pervious pavement	0.550	92	42,970	1.61	2,970	$74,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



The Connect Church: Randolph

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

0 25' 50'

BRUNDAGE PARK

RAP ID: 13

Subwatershed: Raritan River North Branch

HUC14 ID: 02030105060010

Site Area: 818,135 sq. ft.

Address: 43 North Bungalow Lane
Randolph, NJ 07869

Block and Lot: Block 86, Lot 56

Rain gardens can be installed in multiple grass areas around the property to capture, treat, and infiltrate stormwater runoff from the rooftops of the park buildings. This may require downspout redirections and disconnections. A gutter system will need to be installed on the pavilion for the northern rain garden. Existing parking spaces in the northern lot can be converted into pervious pavement to capture and infiltrate the stormwater runoff from the asphalt. The tennis and basketball courts can be converted into pervious pavement to capture and infiltrate the stormwater runoff from the courts. A cistern can be installed to the northeast of the southern park 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.

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 50"
27	217,150	10.5	109.7	997.0	0.169	6.77

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	3,235	0.096	13	6,750	0.25	810	$8,100
Pervious pavement	87,850	2.601	384	183,240	6.89	61,430	$1,535,750
Rainwater harvesting	285	0.008	2	300	0.01	300 (gal)	$900

GREEN INFRASTRUCTURE RECOMMENDATIONS

Brundage Park

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

0 50' 100'

FREEDOM PARK

RAP ID: 14

Subwatershed: Den Brook

Site Area: 4,398,539 sq. ft.

Address: 630 Millbrook Avenue
Randolph, NJ 07869

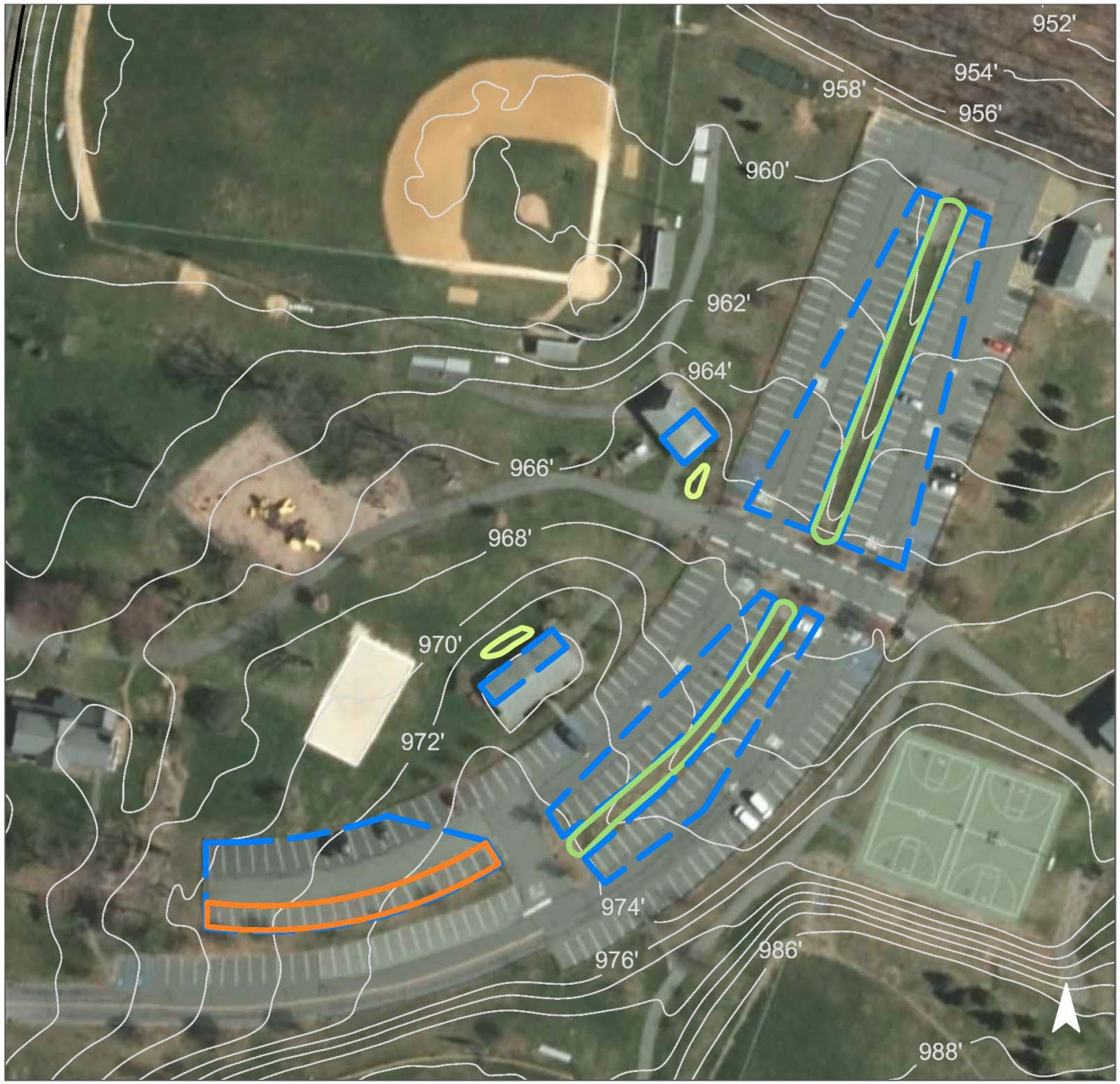
Block and Lot: Block 119 | Lot 15. 01, 115.02, 101.01, 116.01

Bioretention systems can be installed near the park buildings to manage their rooftop areas. The existing swales in the center of the parking lot can be retrofitted with bioswales to enhance infiltration and slow down the stormwater runoff from the parking lot area. Pervious pavement can be installed in the northwest corner of the parking lot to capture additional stormwater 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"
8	348,578	16.8	176.0	1,600.4	0.272	9.56

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	0.039	7	3,080	0.12	380	$1,900
Bioswales	0.305	73	21,880	0.35	5,850	$146,250
Pervious pavement	0.266	44	20,770	0.78	3,530	$88,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



Freedom Park

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

0 50' 100'

RANDOLPH TOWNSHIP FIRE DEPARTMENT COMPANY #3

RAP ID: 15

Subwatershed: Raritan River

Site Area: 199,614 sq. ft.

Address: 670 Millbrook Avenue
Randolph, NJ 07869

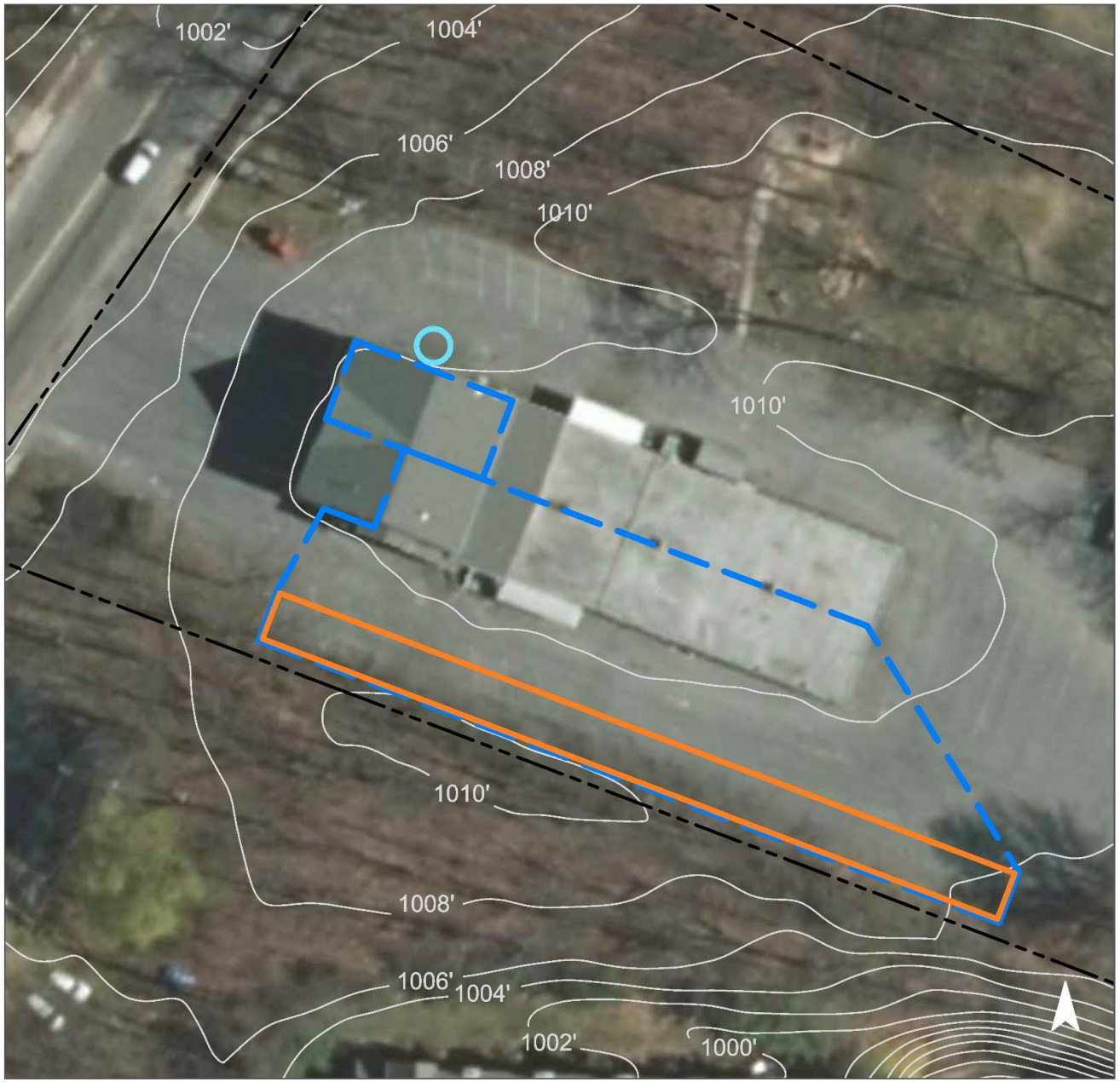
Block and Lot: Block 119 | Lot 114.01

Parking spaces along the south end of the building near multiple disconnected downspouts can be converted to pervious pavement to capture and infiltrate stormwater runoff from the parking lot and rooftop areas. A cistern can be installed on the north side of the building near a disconnected downspout to capture rainwater that can be used for watering gardens, washing vehicles, or for other non-potable uses. 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"
35	70,861	3.4	35.8	325.3	0.055	1.94

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	0.438	73	34,210	1.29	4,680	$117,000
Rainwater harvesting	0.039	7	1,200	0.05	1,200 (gal)	$2,400

GREEN INFRASTRUCTURE RECOMMENDATIONS



Randolph Township Fire Department Company #3

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

0 25' 50'

RANDOLPH TOWNSHIP LIBRARY & COMMUNITY CENTER

RAP ID: 16

Subwatershed: Raritan River

Site Area: 431,087 sq. ft.

Address: 30 Calais Road
Randolph, NJ 07869

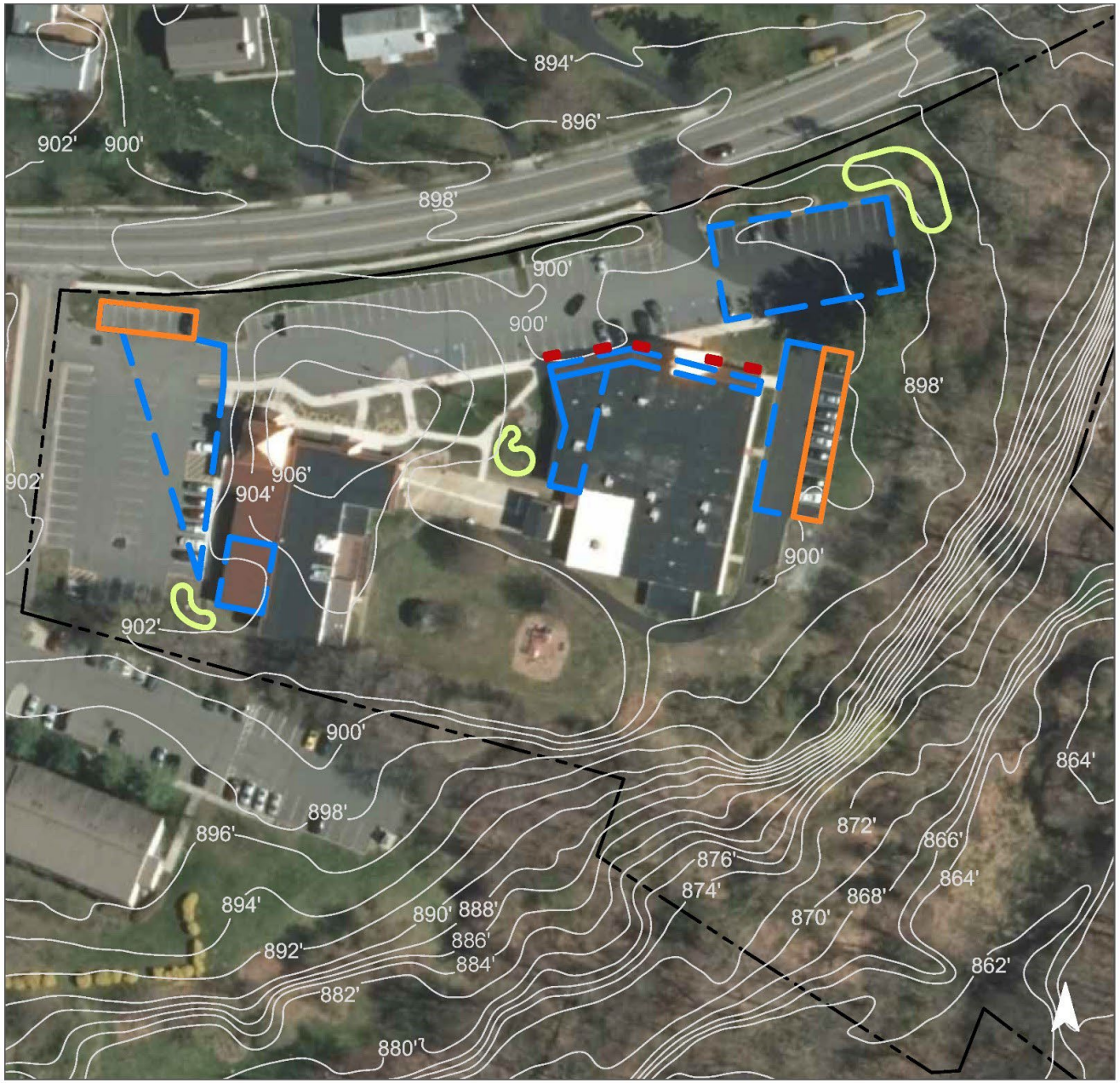
Block and Lot: Block 93 | Lot 3

Five downspout planter boxes can be installed on the north end of the library to filter the rooftop drainage area and beautify the area. Pervious pavement can be installed in the parking areas to capture and infiltrate stormwater runoff from the parking lot. Bioretention systems can be installed to manage areas from the rooftop by redirecting downspouts and from the parking lot by creating curb cuts. 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"
28	121,846	5.9	61.5	559.4	0.095	3.34

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 systems	0.269	45	21,030	0.79	2,590	$12,950
Planter boxes	0.028	5	n/a	n/a	5 (boxes)	$5,000
Pervious pavement	0.327	55	25,580	0.96	2,450	$61,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



Randolph Township Library & Community Center

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

0 50' 100'

RESURRECTION PARISH

RAP ID: 17

Subwatershed: Raritan River

Site Area: 347,087 sq. ft.

Address: 651 Millbrook Avenue
Randolph, NJ 07869

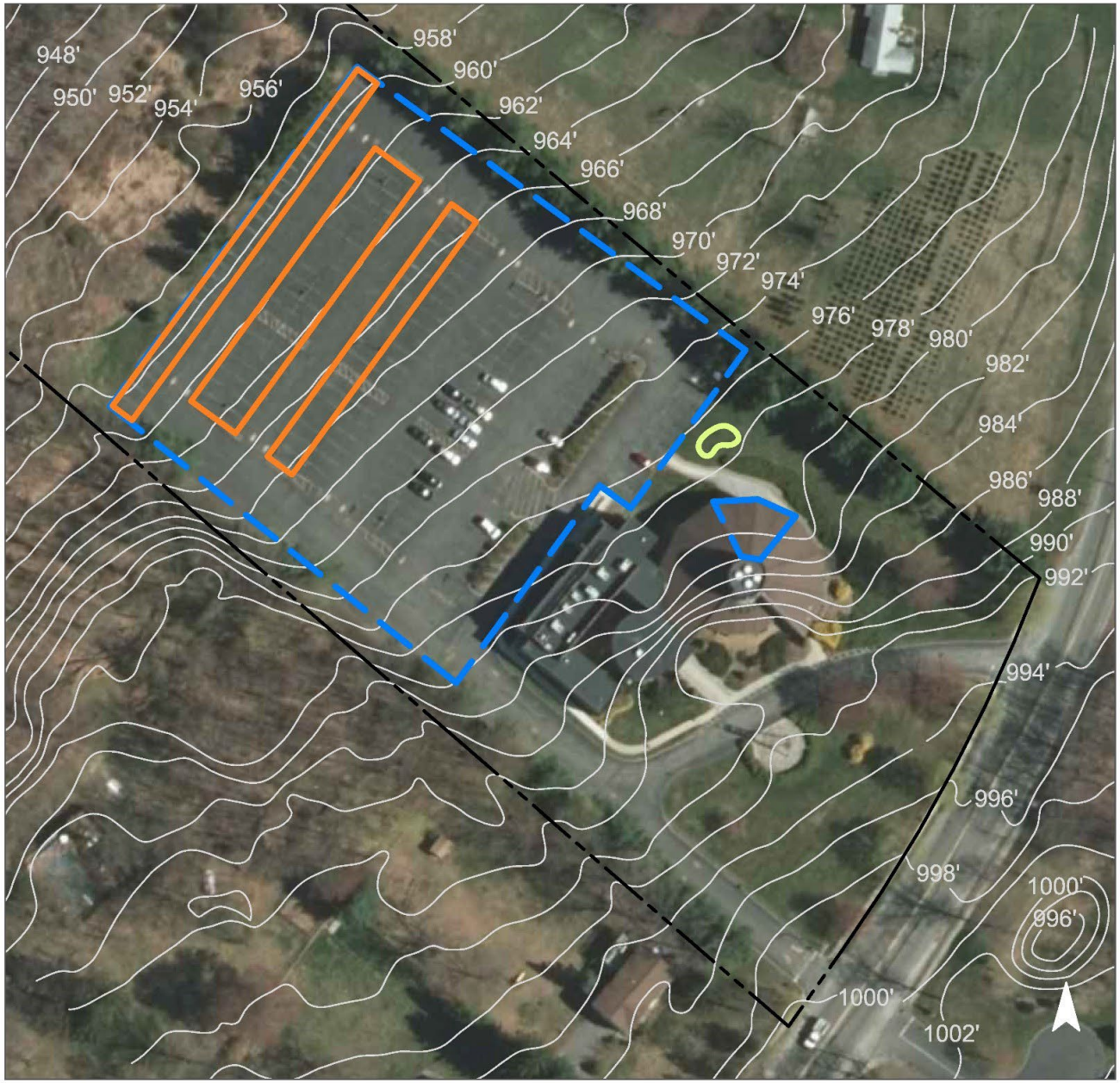
Block and Lot: Block 82 | Lot 40

A rain garden can be installed on the north side of the building near the connected downspouts. The connected downspouts can be disconnected and led into the rain garden to capture, treat, and infiltrate stormwater runoff from the roof. The parking spaces in the parking lot can be retrofitted into pervious pavement to capture a large volume of stormwater running off from the parking lot during storm events. 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"
35	120,730	5.8	61.0	554.3	0.094	3.31

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	0.033	6	2,590	0.10	320	$1,600
Pervious pavement	2.210	370	172,740	6.49	16,430	$410,750

GREEN INFRASTRUCTURE RECOMMENDATIONS



Resurrection Parish

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

0 50' 100'

BIBLE CHURCH INTERNATIONAL

RAP ID: 18

Subwatershed: Rockaway River

Site Area: 336,955 sq. ft.

Address: 791 NJ Route 10
Randolph, NJ 07869

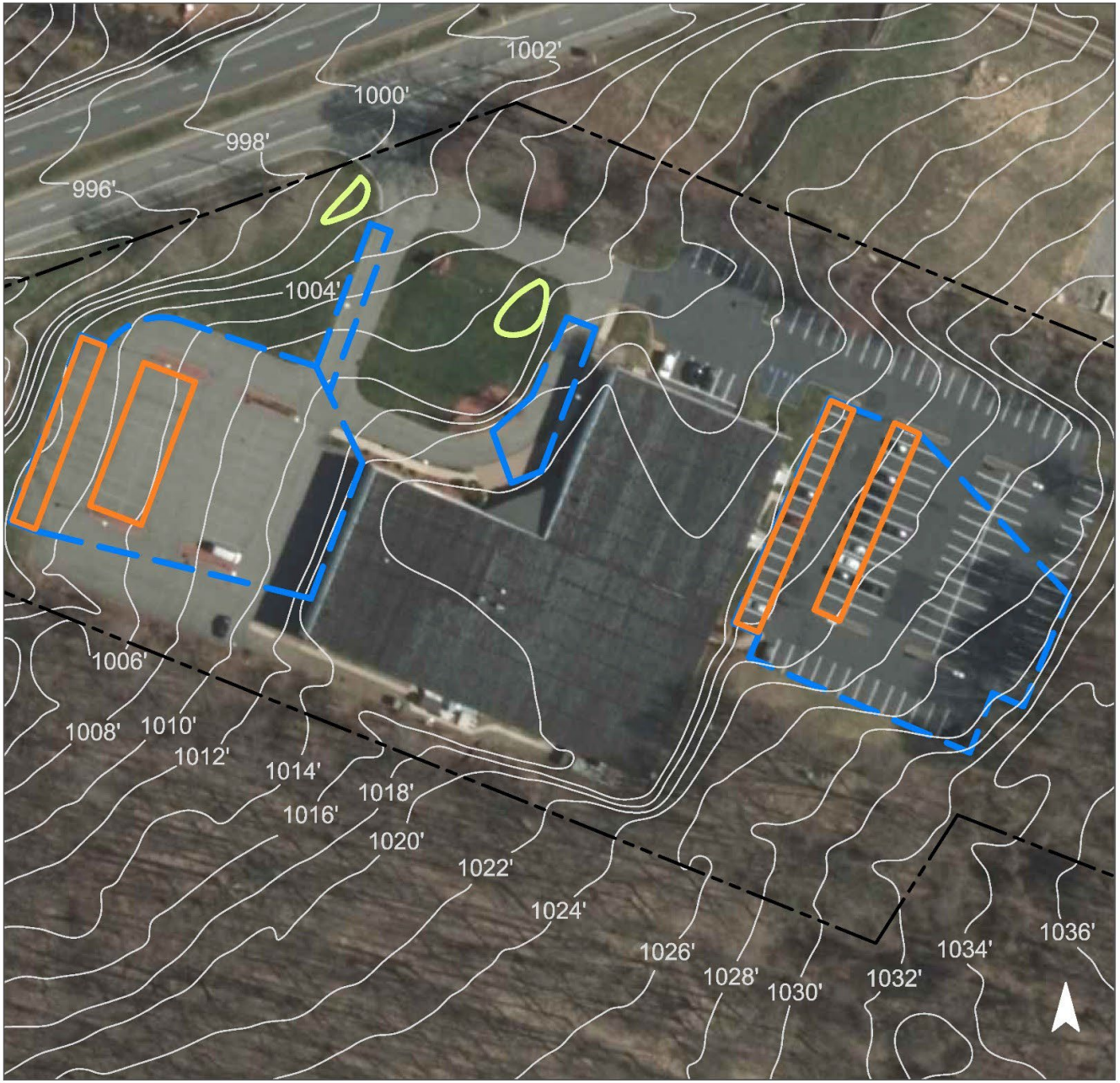
Block and Lot: Block 44 | Lot 13.01

Pervious pavement can be installed in both parking lots to capture and infiltrate stormwater runoff from the parking lot. Bioretention systems can be installed in the turfgrass areas by using curb cuts to direct water from the pavement into them. 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"
50	167,782	8.1	84.7	770.3	0.131	4.60

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	8,750	0.33	1,075	$5,375
Pervious pavement	0.327	55	25,580	0.96	2,500	$62,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



Bible Church International

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

0 50' 100'

CHRISTADELPHIAN CHAPEL

RAP ID: 19

Subwatershed: Rockaway River

Site Area: 130,981 sq. ft.

Address: 322 South Morris Street
Randolph, NJ 07869

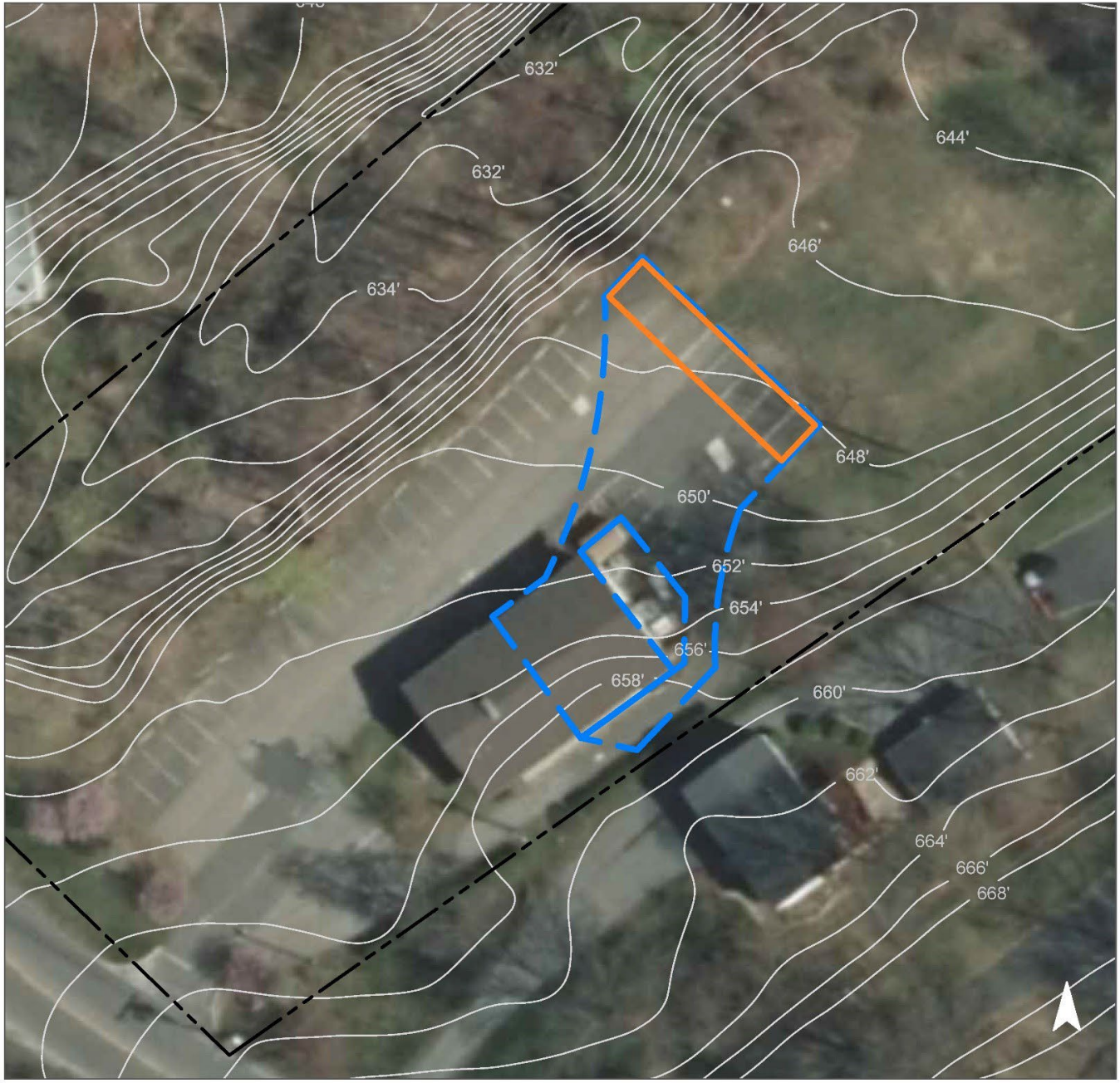
Block and Lot: Block 180 | Lot 1

Parking spaces in the parking lot to the northeast of the building can be converted to 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"
19	24,620	1.2	12.4	113.0	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
Pervious pavement	0.210	35	16,420	0.62	1,440	$36,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Christadelphian Chapel

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

0 25' 50'

FERNBROOK ELEMENTARY SCHOOL

RAP ID: 20

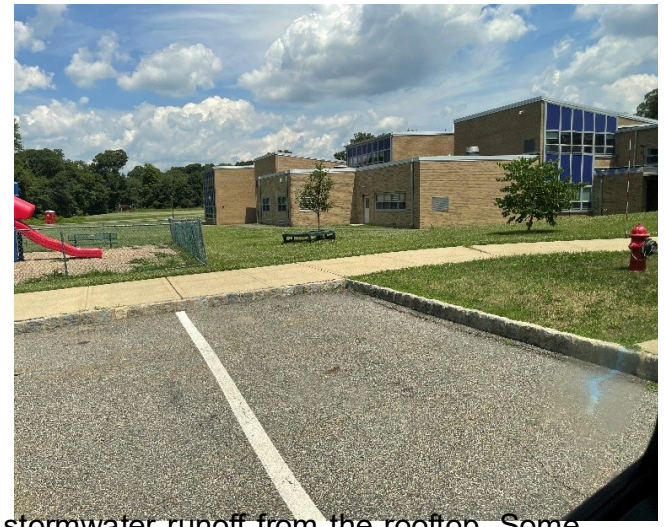
Subwatershed: Rockaway River

HUC14 ID: 02030103030070

Site Area: 741,674 sq. ft.

Address: 206 Quaker Church Road
Randolph, NJ 07869

Block and Lot: Block 110, Lot 11

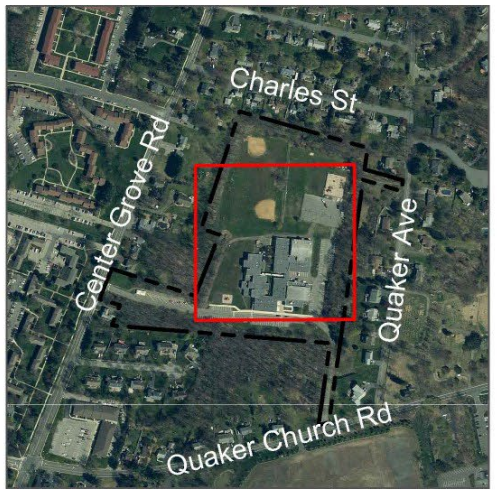


Multiple rain gardens can be installed to the west of the school to capture, treat, and infiltrate stormwater runoff from the rooftop. Some downspouts will need to be redirected beneath the asphalt pathway. Rain gardens can also be installed to the north of the northern parking lot and the western play area. Trench drains will need to be installed on the western side of the asphalt to intercept and redirect the runoff to the rain gardens. Existing parking spaces to the east of the building can be converted into pervious pavement to capture and infiltrate the stormwater runoff from the asphalt. Adjacent downspouts can be disconnected to the pervious pavement to manage stormwater runoff from the rooftop. The concrete entryway to the south of the building can be replaced with permeable pavers. 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 50"
31	229,220	11.1	115.8	1,052.4	0.179	7.14

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	26,235	0.777	114	54,720	2.06	6,565	$65,650
Pervious pavement	29,455	0.872	129	61,440	2.31	7,615	$190,375

GREEN INFRASTRUCTURE RECOMMENDATIONS



Fernbrook Elementary School

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

0 50' 100'

GOOD SHEPHERD LUTHERAN CHURCH

RAP ID: 21

Subwatershed: Rockaway River

HUC14 ID: 02030103030070

Site Area: 229,094 sq. ft.

Address: 319 Quaker Church Road
Randolph, NJ 07869

Block and Lot: Block 78, Lot 3

Rain gardens can be installed to the north and west of the church buildings to capture, treat, and infiltrate the stormwater runoff from the rooftop. Some downspouts will need to be disconnected. 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 50"
29	66,518	3.2	33.6	305.4	0.052	2.07

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	3,930	0.116	17	8,200	0.31	985	$9,850

GREEN INFRASTRUCTURE RECOMMENDATIONS

Good Shepherd Lutheran Church

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

0 20' 40'

GRACE CHURCH BETHLEHEM CAMPUS

RAP ID: 22

Subwatershed: Rockaway River

Site Area: 442,120 sq. ft.

Address: 758 Route 10 West
Randolph, NJ 07869

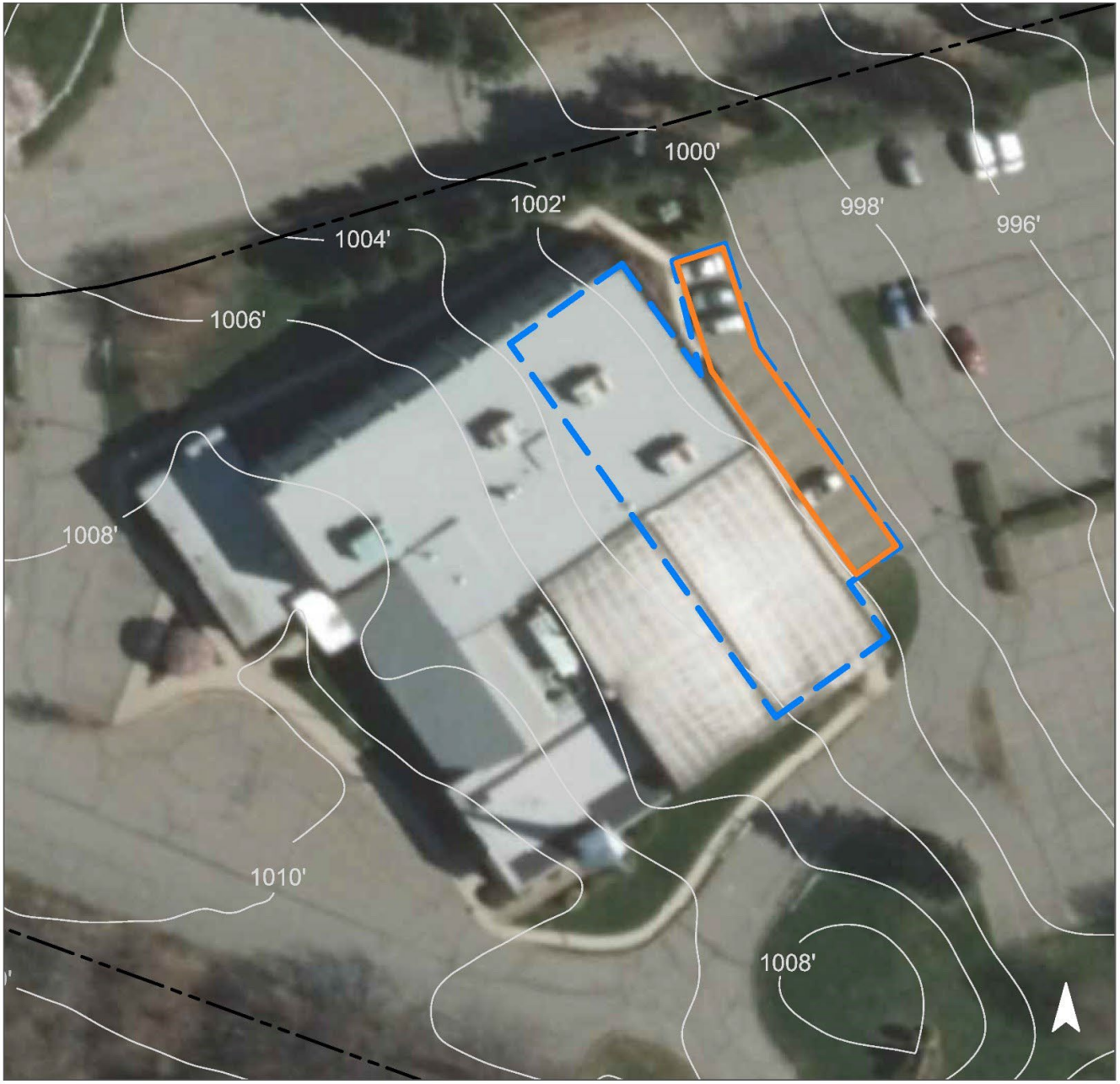
Block and Lot: Block 42 | Lot 97,98,99

Pervious pavement can be installed on a strip of parking spaces north of the building near connected downspouts. Parking spaces can be replaced with pervious pavement to capture and infiltrate stormwater. The downspouts can be disconnected and redirected into the pervious pavement to capture additional 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"
32	139,728	6.7	70.6	641.5	0.109	3.83

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	0.238	40	18,630	0.70	2,130	$53,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



Grace Church Bethlehem Campus

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

0 25' 50'

MAR THOMA CHURCH OF NEW JERSEY

RAP ID: **23**

Subwatershed: **Rockaway River**

Site Area: **70,616 sq. ft.**

Address: **790 NJ Route 10**
Randolph, NJ 07869

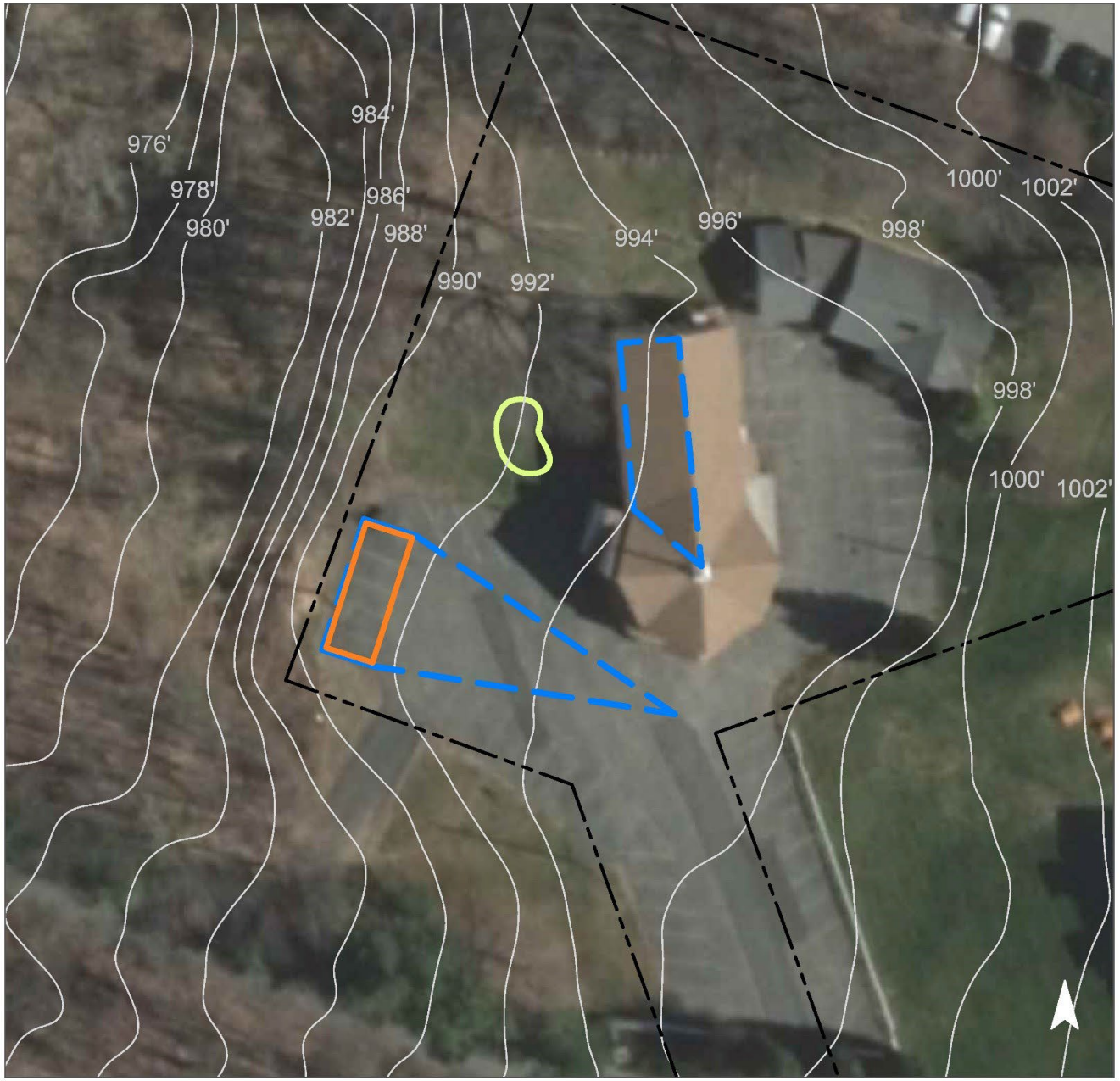
Block and Lot: **Block 42 | Lot 109**

Parking spaces in the parking lot to the southwest of the building can be converted to pervious pavement to capture and infiltrate stormwater runoff from the parking lot. A rain garden can be installed in the turfgrass area west of the building to capture, treat, and infiltrate stormwater runoff from the roof. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
67	47,055	2.3	23.8	216.0	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 system	0.033	6	2,620	0.10	300	$1,500
Pervious pavement	0.078	13	6,110	0.23	810	$20,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



Mar Thoma Church of New Jersey

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

0 25' 50'

MILLBROOK UNITED METHODIST CHURCH

RAP ID: **24**

Subwatershed: **Rockaway River**

Site Area: **269,443 sq. ft.**

Address: **246 Millbrook Avenue**
Randolph, NJ 07869

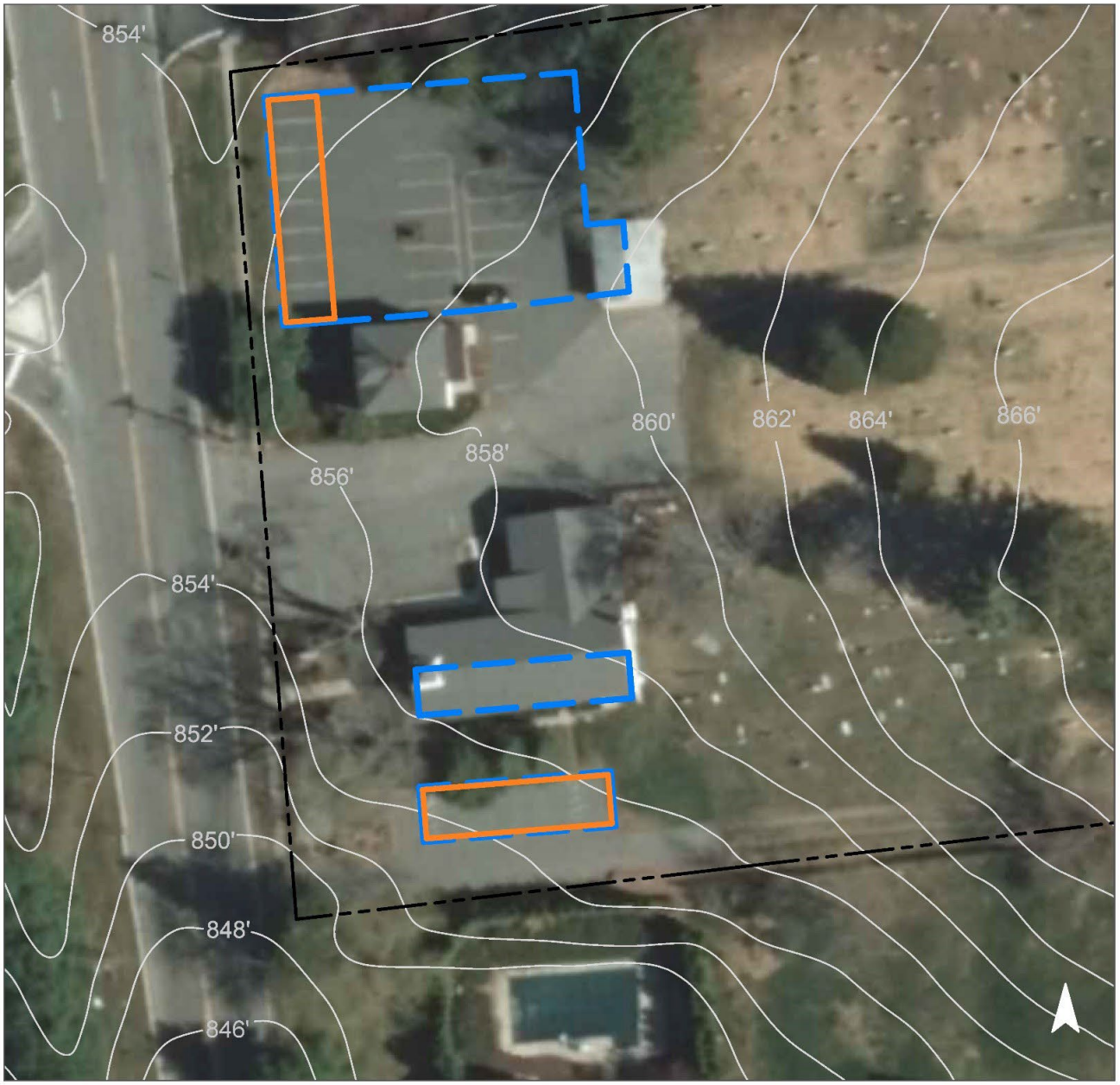
Block and Lot: **Block 145 | Lot 3, 58**

Pervious pavement can be installed south of the building near two disconnected downspouts to capture and infiltrate stormwater runoff from the parking lot and building. Parking spaces in the north parking lot can also be retrofitted 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"
12	32,099	1.5	16.2	147.4	0.025	0.88

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	0.254	43	19,840	0.75	2,485	$62,125

GREEN INFRASTRUCTURE RECOMMENDATIONS



Millbrook United Methodist Church

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

0 25' 50'

RANDOLPH RESCUE SQUAD

RAP ID: 25

Subwatershed: Rockaway River

HUC14 ID: 02030103030070

Site Area: 59,005 sq. ft.

Address: 780 NJ-10
Randolph, NJ 07869

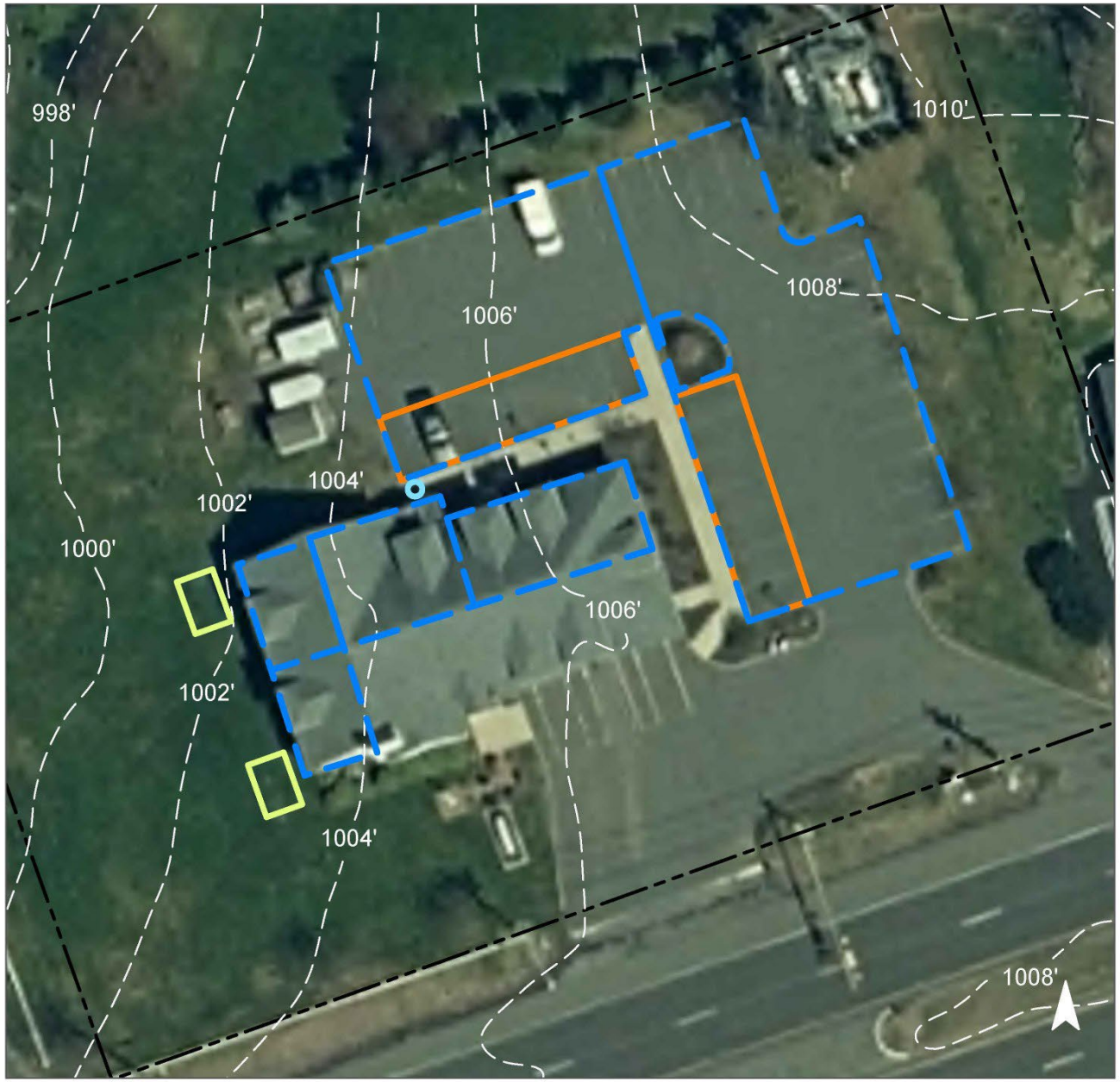
Block and Lot: Block 42, Lot 107

Rain gardens can be installed to the northwest and southwest of the building to capture, treat, and infiltrate stormwater runoff from the rooftop. This will require downspout disconnections. Existing parking spaces to the north and east of the building can be converted into pervious pavement to capture and infiltrate the stormwater runoff from the asphalt. Downspouts on the north of the building can be disconnected to the pervious pavement to manage stormwater runoff from the rooftop. A cistern can be installed to the north 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.

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 50"
56	33,088	1.6	16.7	151.9	0.026	1.03

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	1,160	0.034	6	2,420	0.09	290	$2,900
Pervious pavement	11,500	0.340	49	23,990	0.90	2,210	$55,250
Rainwater harvesting	1,080	0.032	4	900	0.03	900 (gal)	$2,700

GREEN INFRASTRUCTURE RECOMMENDATIONS



Randolph Rescue Squad

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

0 20' 40'

RANDOLPH TOWNSHIP FIRE DEPARTMENT COMPANY #2

RAP ID: 26

Subwatershed: Rockaway River

Site Area: 94,287 sq. ft.

Address: 340 NJ Route 10
Randolph, NJ 07869

Block and Lot: Block 137, Lot 6, 7, 8

Pervious pavement can be installed in the parking spaces north of the building to capture and infiltrate stormwater runoff from the parking lot. A cistern can be installed north of the building near a downspout. The water from the cistern can then be used for watering gardens, washing vehicles, or for other non-potable uses. 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"
61	57,966	2.8	29.3	266.1	0.045	1.59

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	0.384	64	30,000	1.13	2,710	$67,750
Rainwater harvesting	0.061	10	2,300	0.09	2,300 (gal)	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

Randolph Township Fire Department Company #2

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

0 25' 50'

SHONGUM ELEMENTARY SCHOOL

RAP ID: 27

Subwatershed: Whippany River

Site Area: 675,450 sq. ft.

Address: 9 Arrow Place
Randolph, NJ 07869

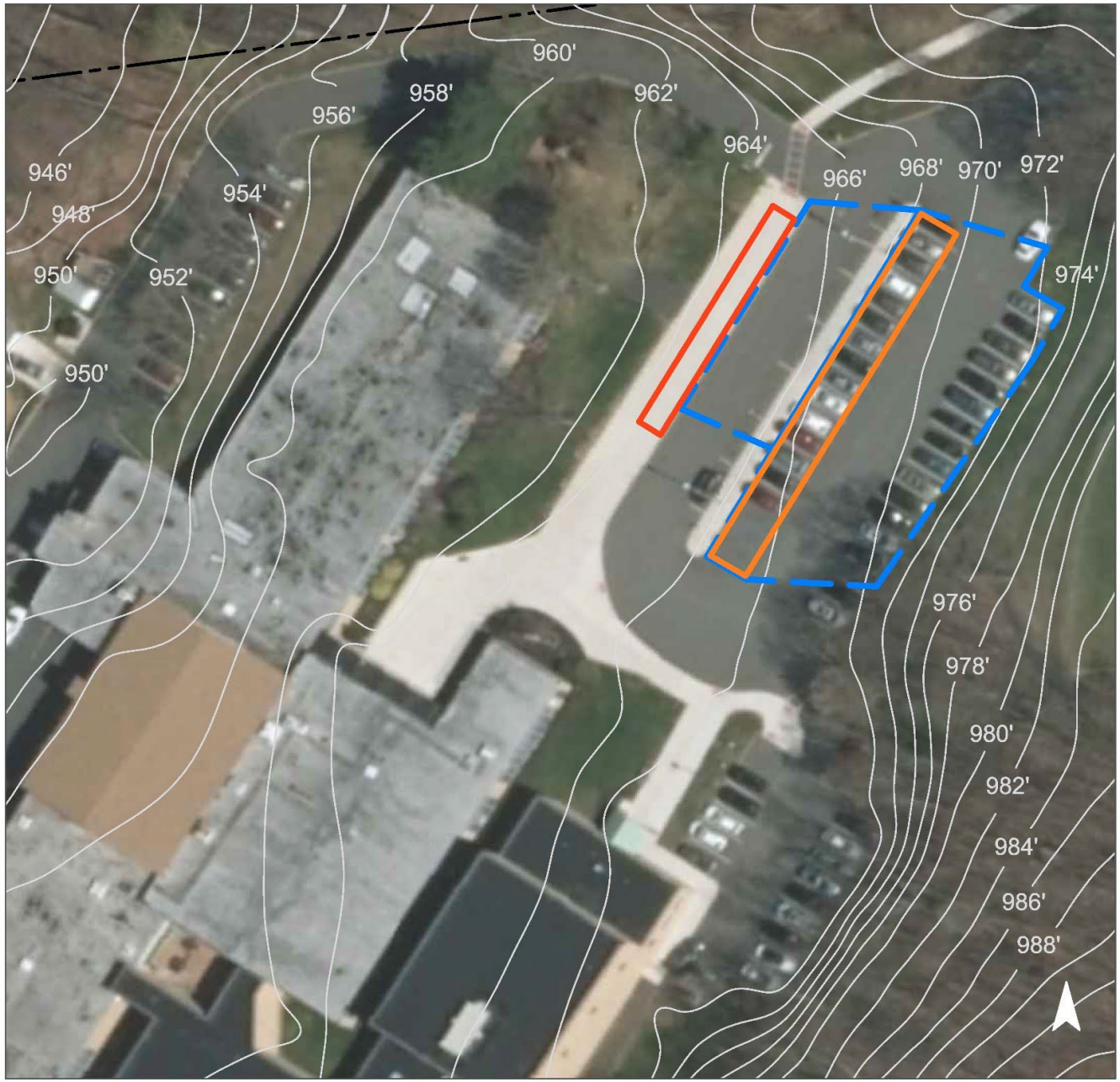
Block and Lot: Block 168 | Lot 58

Pervious pavement can be installed in the center parking spaces to capture and infiltrate stormwater runoff from the parking lot. A stormwater planter can be installed by depaving a portion of the wide sidewalk. A curb cut can be used to intercept 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"
26	173,966	8.4	87.9	798.7	0.136	4.77

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	0.267	45	20,830	0.78	2,890	$5,780
Stormwater planter	0.104	17	8,150	0.31	1,000	$5,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Shongum Elementary School

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

0 30' 60'

RANDOLPH TOWNSHIP FIRE DEPARTMENT COMPANY #5

RAP ID: 28

Subwatershed: Whippany River

Site Area: 20,984 sq. ft.

Address: 118 West Hanover Avenue
Randolph, NJ 07869

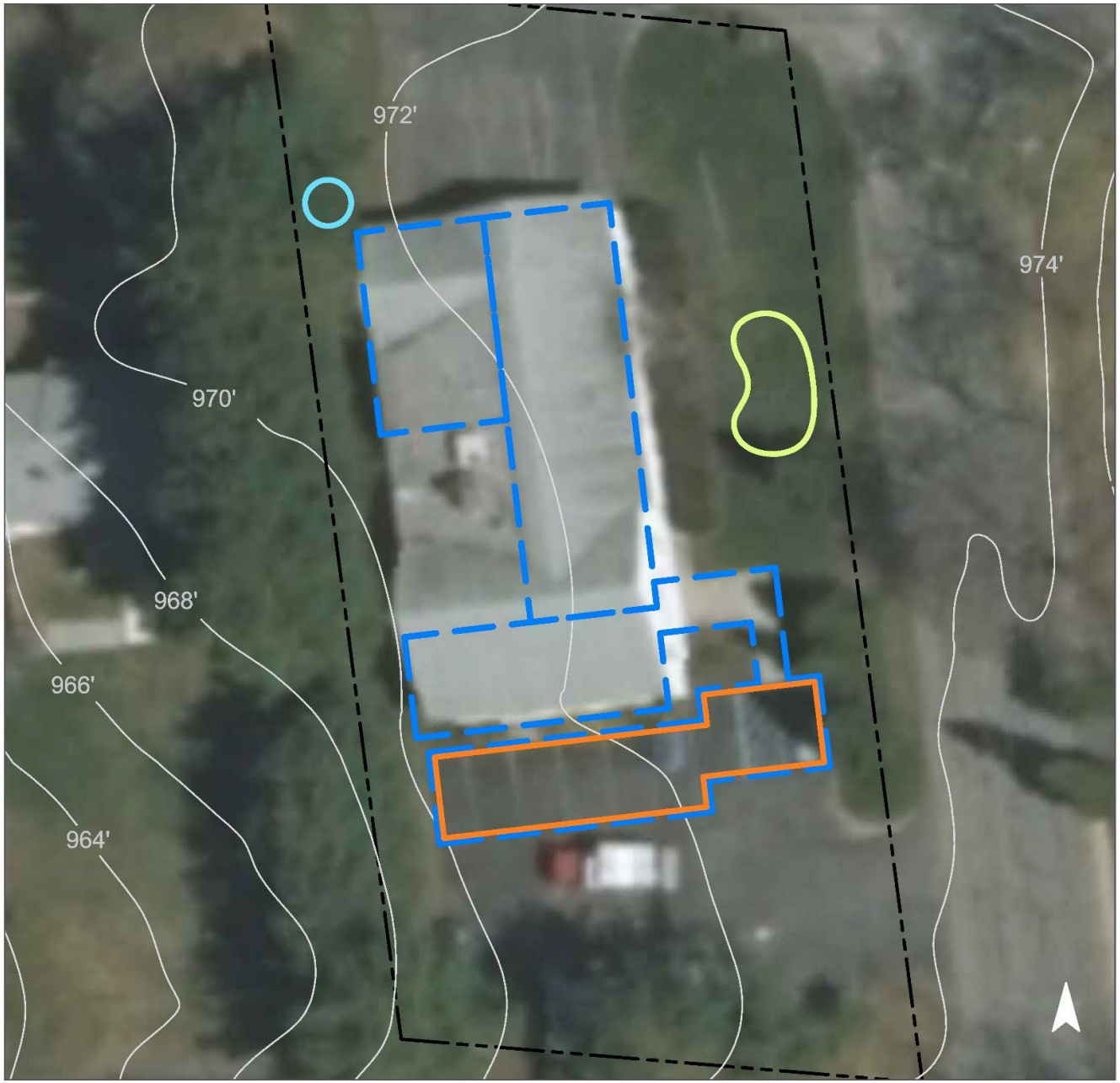
Block and Lot: Block 167 | Lot 1

Pervious pavement can be installed in parking spaces along the south side of the building to capture and infiltrate stormwater from the adjacent paved areas and rooftop. A rain garden can be installed to the east of the building near a disconnected downspout to capture, treat, and infiltrate stormwater runoff. A cistern can be installed on the north side of the building to capture stormwater and reuse it for watering gardens, washing vehicles, or for other non-potable uses. 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"
33	6,928	0.3	3.5	31.8	0.005	0.19

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	4,070	0.15	500	$2,500
Pervious pavement	0.071	12	5,540	0.21	1,400	$35,000
Rainwater harvesting	0.026	4	800	0.03	800 (gal)	$1,600

GREEN INFRASTRUCTURE RECOMMENDATIONS



Randolph Township Fire Department Company #5

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

0 15' 30'

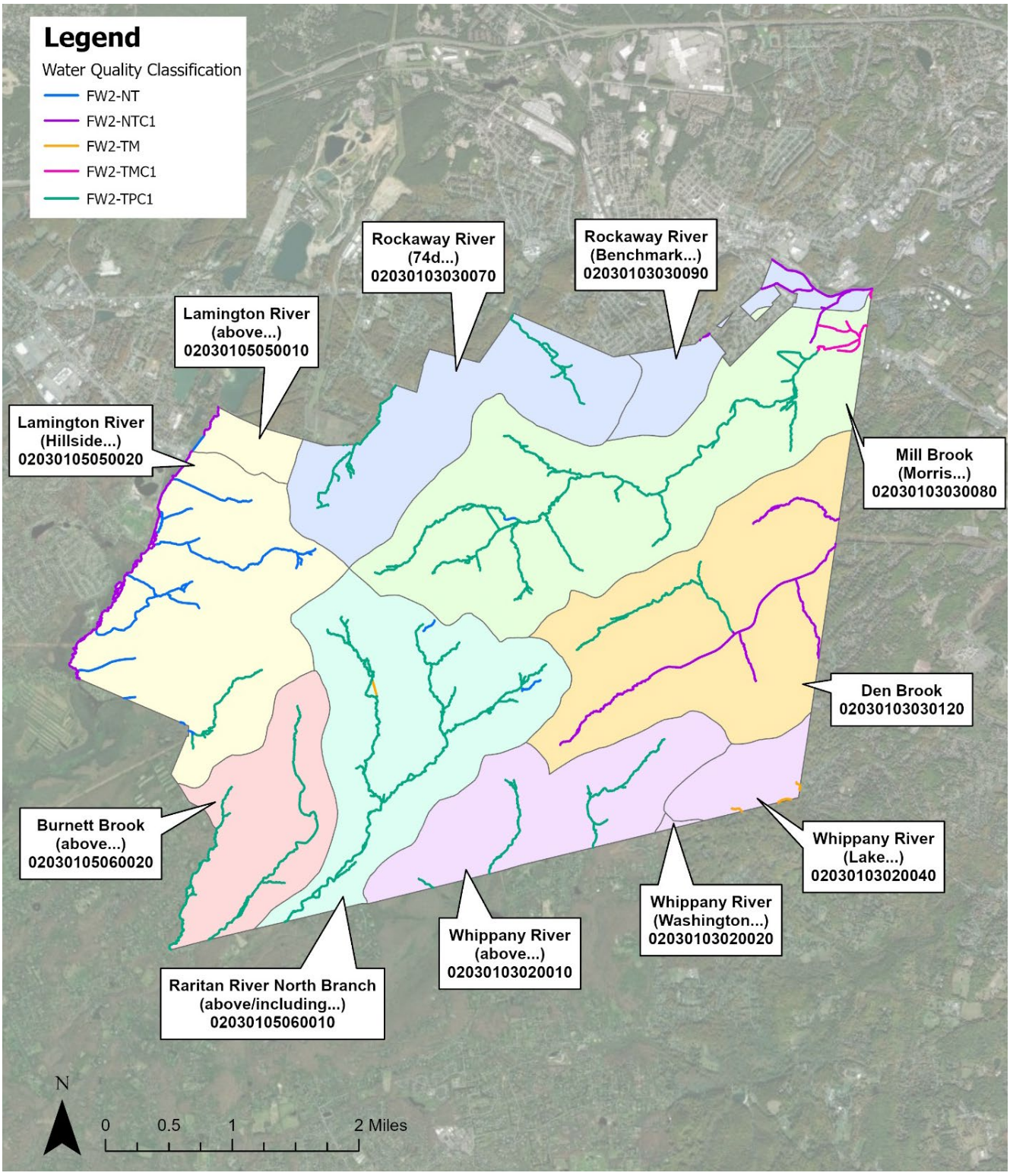


Figure 13. Water Quality Classification of Surface Waters in Randolph Township

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

Surface Water Quality Classification	Surface Water Quality Code	Miles	Percent of Municipal Streams
Freshwater 2, non-trout	FW2-NT	6.1	11.1%
Freshwater 2, non-trout, Category One	FW2-NTC1	11.0	20.0%
Freshwater 2, trout production, Category One	FW2-TPC1	36.2	65.7%
Freshwater 2, trout maintenance	FW2-TM	0.4	0.8%
Freshwater 2, trout maintenance, Category One	FW2-TMC1	1.3	2.4%

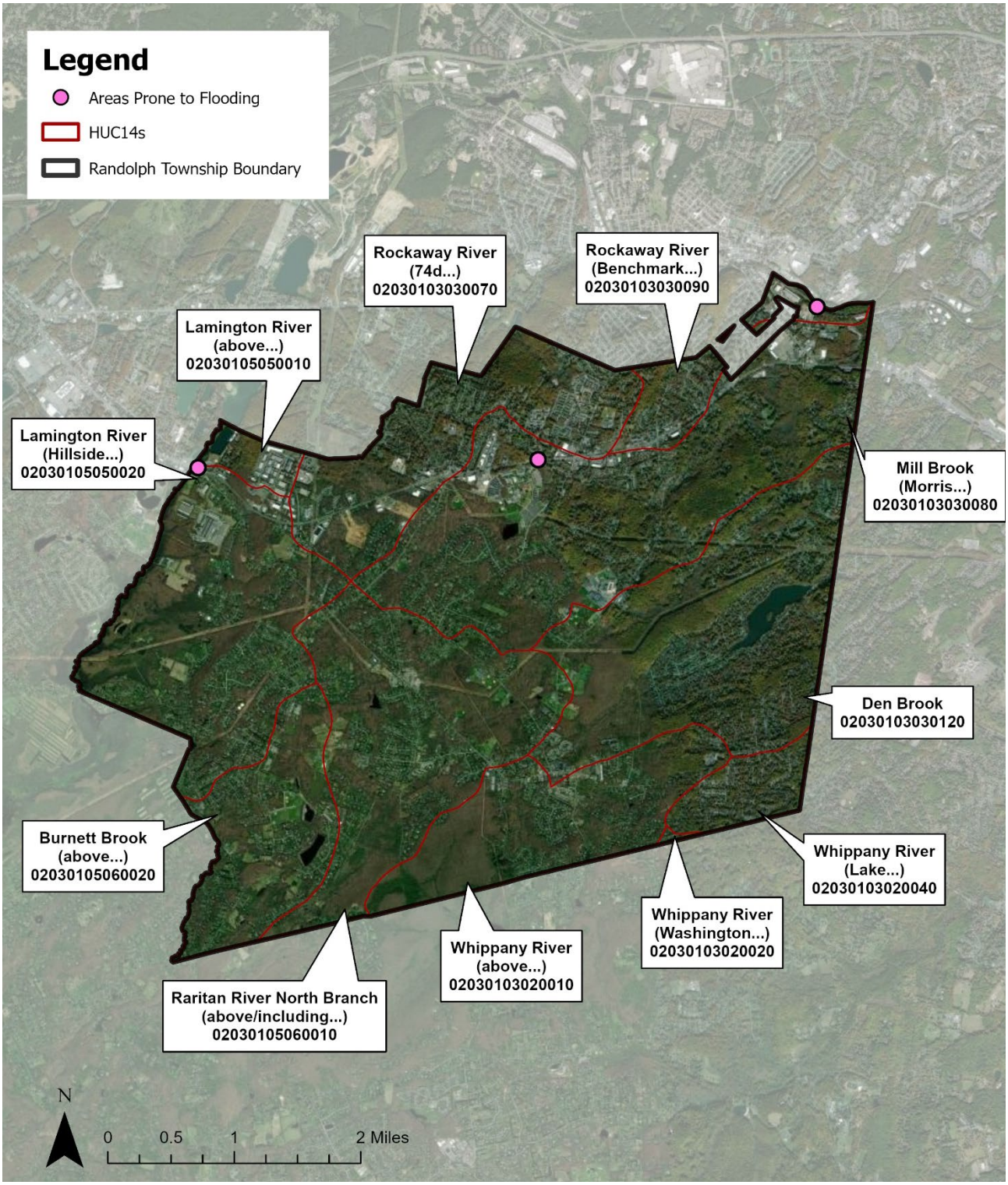


Figure 14. Areas Prone to Flooding in Randolph Township