Roxbury Township

Introduction

Located in Morris County in New Jersey, Roxbury Township covers about 21.9 square miles. With a population of 22,950 (2020 United States Census), Roxbury Township consists of 41.2% of urban land uses by area. Of that urban land use, approximately 31.5% is comprised of medium-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 approximately 55.0% of Roxbury Township.

Roxbury Township contains portions of nine subwatersheds (Table 1). There are approximately 56.3 miles of rivers and streams within the municipality; these include Drakes Brook and its tributaries, tributaries to Flanders Brook, Lamington River and its tributaries, Ledgewood Brook and its tributaries, tributaries to Ledgewood Pond, Musconetcong River and its tributaries, Rockaway River and its tributaries, Stephens Brook and its tributaries, Succasunna Brook and its tributaries, Wills Brook and its tributaries, and several uncoded tributaries. Roxbury Township is within the New Jersey Department of Environmental Protection (NJDEP) Watershed Management Areas (WMA) 1 (Upper Delaware), 6 (Upper Passaic, Whippany, and Rockaway), and 8 (North and South Branch Raritan)

Table 1: Subwatersheds of Roxbury Township

Subwatershed	HUC14
Rockaway River (Stephens Brook to Longwood Lake)	02030103030040
Rockaway River (74d 33m 30s to Stephens Brook)	02030103030070
Drakes Brook (above Eyland Avenue)	02030105010010
Drakes Brook (below Eyland Avenue)	02030105010020
Lamington River (above Route 10)	02030105050010
Lamington River (Hillside Road to Route 10)	02030105050020
Lake Hopatcong	02040105150020
Musconetcong River (Wills Brook to Lake Hopatcong)	02040105150030
Musconetcong River (above Waterloo)	02040105150070

The purpose of this report is to provide a comprehensive understanding of key, defining features within the subwatersheds throughout Roxbury 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 Roxbury 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 Roxbury Township in relation to the study area. Figure 2 shows the portions of the nine HUC14s in Roxbury Township and highlights the HUC14s that are contained within the study area. Figure 3 illustrates the land use in Roxbury Township. A detailed land use analysis and nonpoint source loading analysis was completed for each HUC14 in Roxbury Township and is presented in Table 2. Figure 4 shows the impervious cover in Roxbury Township based upon NJDEP's 2015 impervious cover layer. An impervious cover analysis was completed for each HUC14 in Roxbury 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). Detention basins that are already naturalized are identified as type "N". The retention basins in Table 3 (identified as type "R") could benefit from the addition of vegetative shoreline buffers. Retention basins that already have a vegetative shoreline buffer are listed as type "RB".

The Q-Farms in Roxbury 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 Roxbury 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 129.5 acres of agricultural land use in Roxbury Township, of which, 122.3 acres lie within the study area for this Watershed Restoration and Protection Plan. There are 21 Q-Farms and portions of three Q-Farms in the study area portion of Roxbury Township, totaling 1,282.8 acres. Within the 21 Q-Farms and portions of three Q-Farms, there are approximately 63.0 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 Roxbury 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 (02030105010010, 02030105010020, 02030105050010, 02030105050020). Within these four HUC14s, there are 410.4 acres of buildings and 606.2 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 Roxbury Township, approximately 51.3 acres of rooftop runoff would be managed with 10.26 acres of rain gardens. The plan also calls for the management of 10% of the roadways with bioswales. For the study area within Roxbury Township, approximately 60.6 acres of roadway would be managed, or 16.7 miles of roadway.

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

15A – Public School Property

15B- Other School Property

15C- Public Property

15D- Church and Charitable Property

15E- Cemeteries and Graveyards

15F- Other Exempt

The Property Class 15 parcels for Roxbury 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. Seventeen of these properties offer opportunities to be retrofitted with green infrastructure to help reduce pollutant loads. These properties are identified in Table 10 and represent watershed improvement projects that can be included in the municipality's Watershed Improvement Plan. Figure 12 shows parcels within the entire municipality that offer opportunities to be retrofitted with green infrastructure. These sites are included in the Impervious Cover Reduction Action Plan that was completed by the RCE Water Resources Program for the municipality.

Water Quality Classification

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

are used to protect those uses and guide permitting, monitoring, and water quality restoration efforts.

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

Saline waters that are not PL are classified under the SWQS as either Saline Estuarine (SE) or Saline Coastal (SC). SE waters are further 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 seven classifications that apply to the streams in Roxbury Township.
Figure 13 depicts the water quality classification of surface waters throughout Roxbury Township and Table 11 summarizes the total miles and percentage of each surface water quality classification in the municipality.

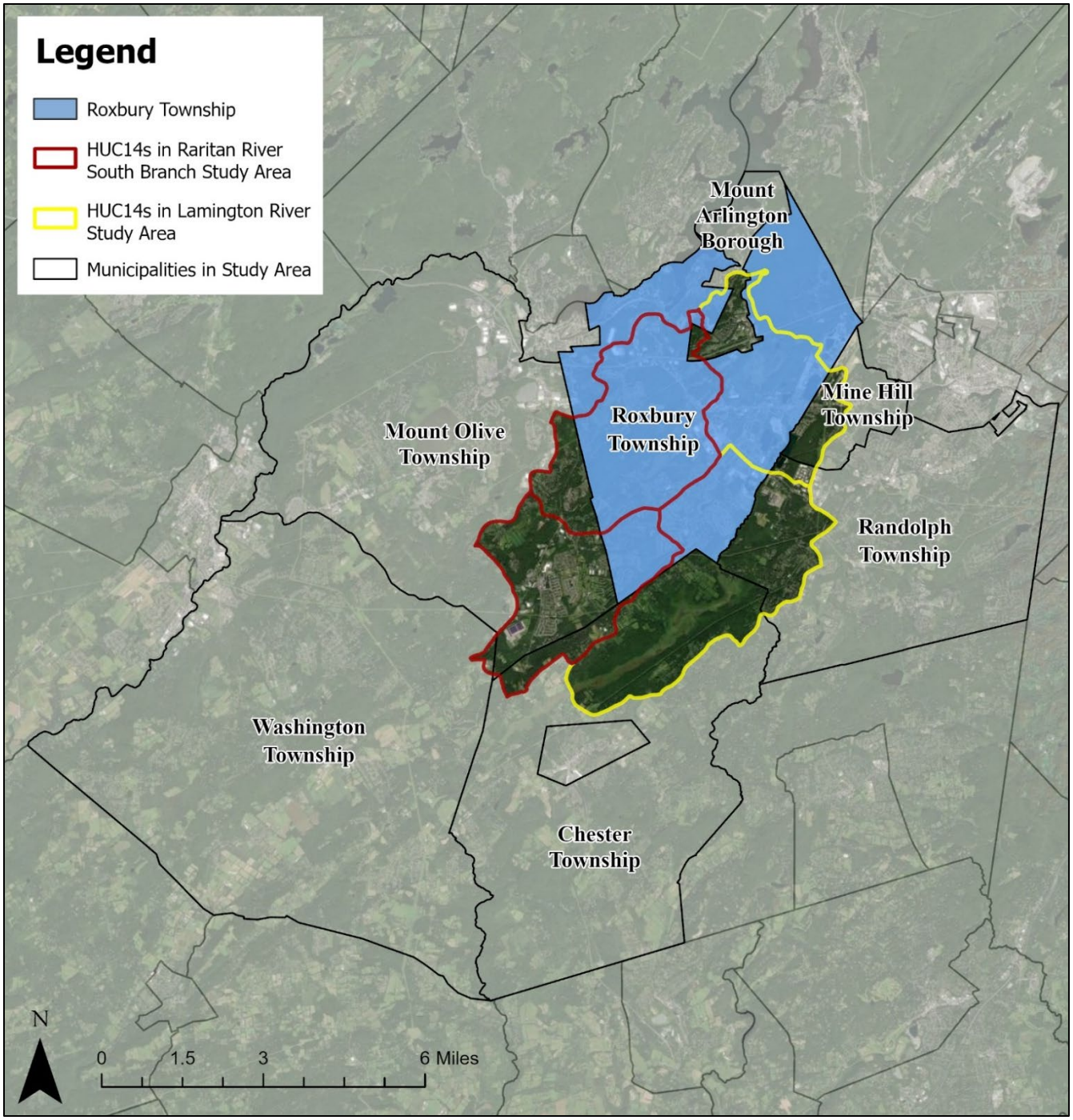


Figure 1: Municipalities in the Study Area

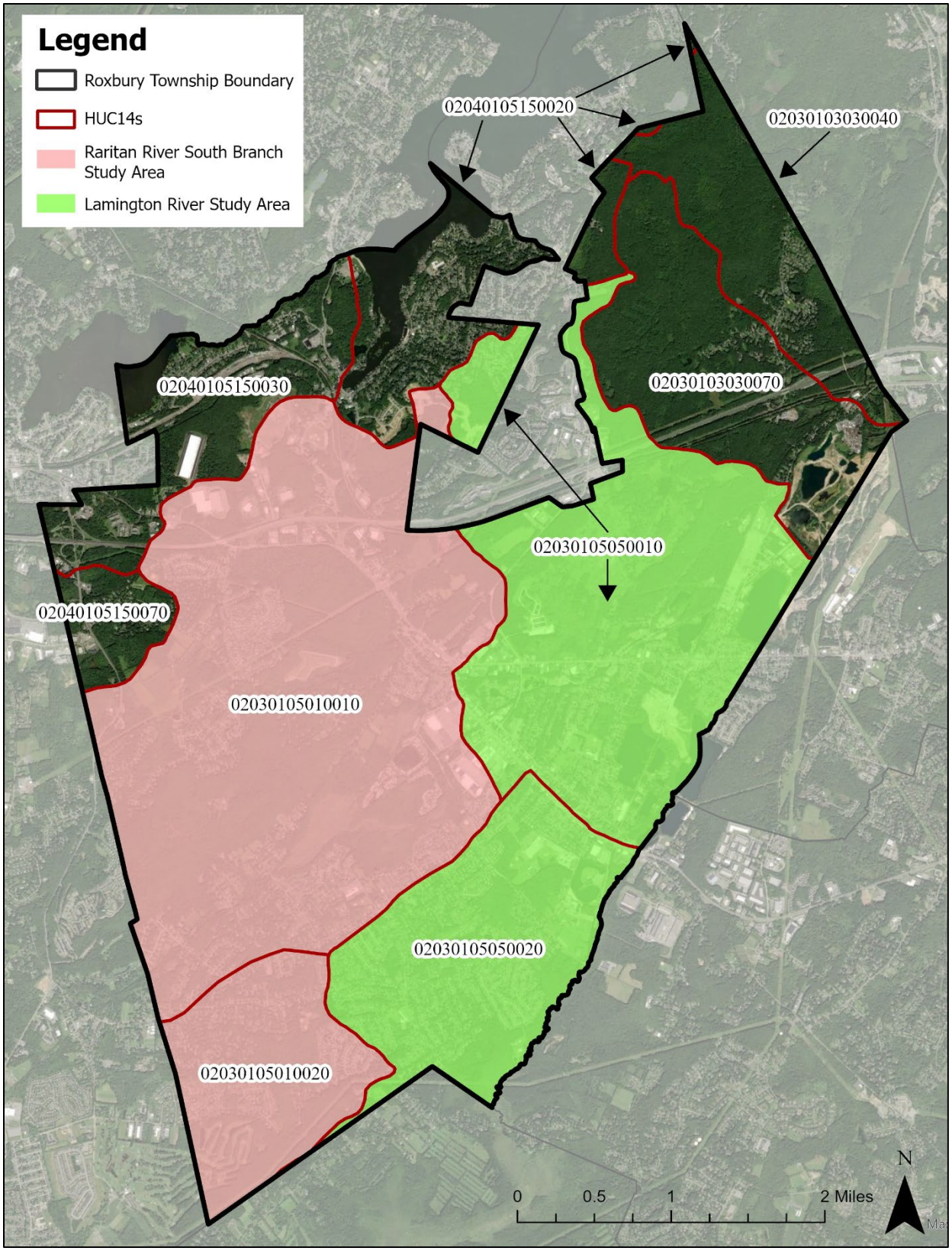


Figure 2: Portions of nine HUC14s are in Roxbury Township

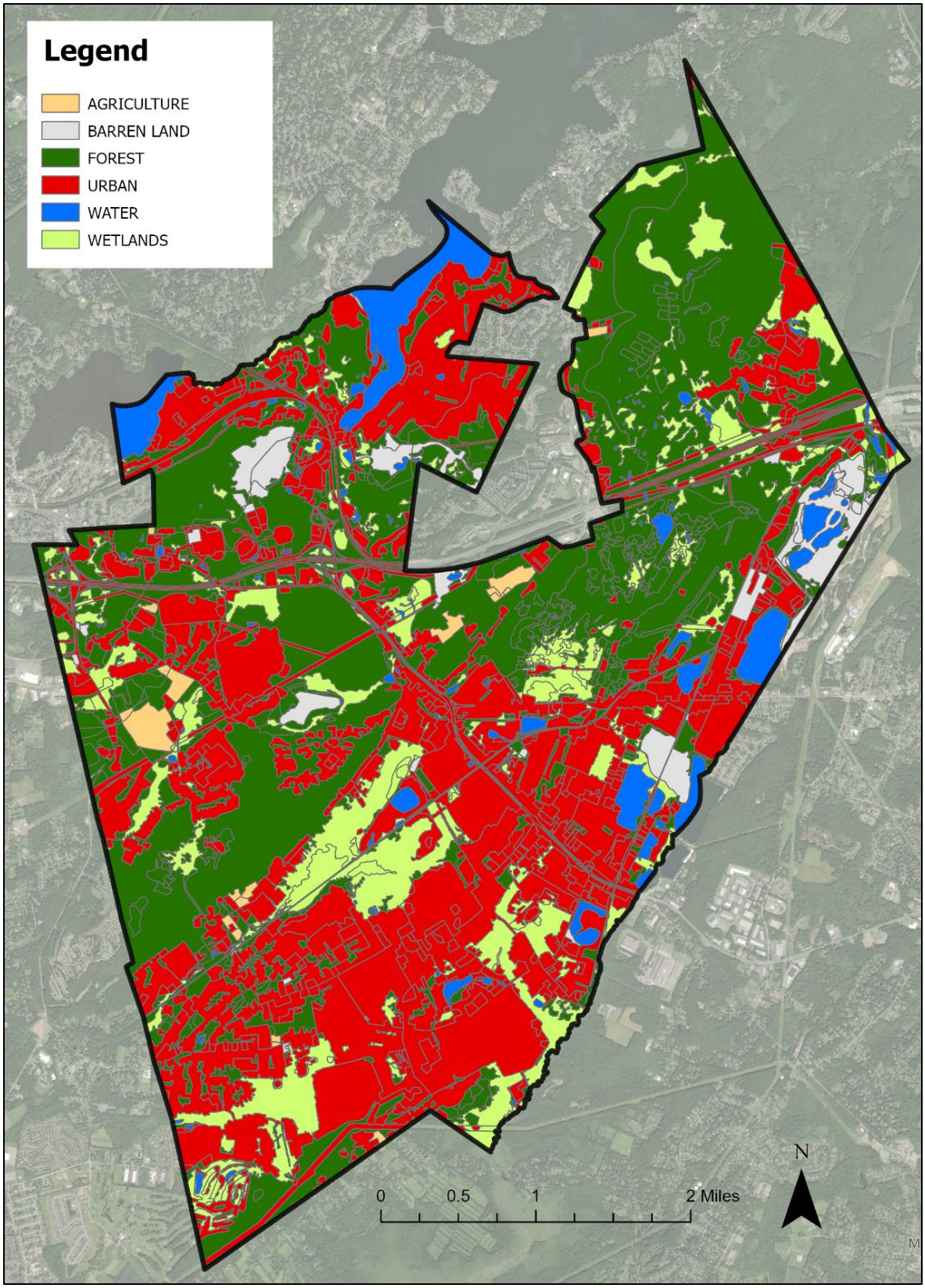


Figure 3: Land Use in Roxbury Township

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

Land Use Type	Area (acres)	TP Load (lbs/yr)	TN Load (lbs/yr)	TSS Load (lbs/yr)
02030103030040				
Agriculture	1.0	1.3	9.6	289.4
Barren Land	0.1	0.0	0.4	4.6
Forest	537.3	53.7	1,611.9	21,491.4
Urban	152.1	212.9	2,281.1	21,290.6
Water	11.1	1.1	33.4	444.9
Wetlands	118.3	11.8	354.9	4,732.1
TOTAL =	**819.8**	**280.9**	**4,291.3**	**48,252.9**
02030103030070				
Agriculture	0.0	0.0	0.0	0.0
Barren Land	129.5	64.8	647.6	7,771.8
Forest	817.2	81.7	2,451.7	32,689.8
Urban	168.4	235.8	2,526.1	23,577.0
Water	63.3	6.3	189.8	2,531.3
Wetlands	146.8	14.7	440.3	5,870.5
TOTAL =	**1,325.2**	**403.3**	**6,255.6**	**72,440.3**
02030105010010				
Agriculture	89.1	115.8	890.5	26,716.3
Barren Land	92.9	46.5	464.6	5,575.4
Forest	1,902.8	190.3	5,708.4	76,112.1
Urban	1,877.0	2,627.7	28,154.4	262,774.1
Water	41.0	4.1	122.9	1,638.8
Wetlands	563.7	56.4	1,691.1	22,547.9
TOTAL =	**4,566.4**	**3,040.7**	**37,031.9**	**395,364.7**
02030105010020				
Agriculture	2.7	3.5	26.6	798.5
Barren Land	1.5	0.8	7.7	92.2
Forest	217.6	21.8	652.8	8,704.6
Urban	531.4	744.0	7,971.7	74,402.6
Water	6.7	0.7	20.1	268.6
Wetlands	203.9	20.4	611.6	8,155.0
TOTAL =	**963.9**	**791.1**	**9,290.6**	**92,421.6**
02030105050010				
Agriculture	27.0	35.2	270.5	8,114.0
Barren Land	105.1	52.5	525.5	6,306.0
Forest	1,099.5	110.0	3,298.6	43,981.9
Urban	1,108.1	1,551.3	16,621.6	155,135.0
Water	203.4	20.3	610.1	8,134.9
Wetlands	219.3	21.9	657.8	8,770.5

TOTAL =	**2,762.4**	**1,791.3**	**21,984.1**	**230,442.3**
02030105050020				
Agriculture	3.6	4.7	35.9	1,076.1
Barren Land	2.2	1.1	11.2	134.4
Forest	109.7	11.0	329.0	4,386.4
Urban	1,114.6	1,560.5	16,719.2	156,045.5
Water	36.9	3.7	110.6	1,475.1
Wetlands	245.2	24.5	735.7	9,809.6
TOTAL =	**1,512.2**	**1,605.4**	**17,941.6**	**172,927.0**
02040105150020				
Agriculture	0.0	0.0	0.0	0.0
Barren Land	27.8	13.9	138.9	1,667.4
Forest	192.2	19.2	576.6	7,688.1
Urban	375.5	525.7	5,632.1	52,566.6
Water	199.9	20.0	599.6	7,995.1
Wetlands	32.7	3.3	98.2	1,309.4
TOTAL =	**828.1**	**582.0**	**7,045.5**	**71,226.5**
02040105150030				
Agriculture	1.6	2.0	15.6	467.0
Barren Land	41.4	20.7	207.1	2,485.8
Forest	441.5	44.2	1,324.6	17,661.0
Urban	369.9	517.8	5,547.8	51,779.5
Water	74.9	7.5	224.7	2,996.6
Wetlands	52.6	5.3	157.7	2,103.3
TOTAL =	**981.9**	**597.4**	**7,477.6**	**77,493.1**
02040105150070				
Agriculture	4.6	6.0	46.4	1,392.2
Barren Land	4.5	2.2	22.3	268.2
Forest	133.6	13.4	400.8	5,344.2
Urban	83.1	116.3	1,246.1	11,630.6
Water	0.5	0.0	1.4	19.1
Wetlands	53.6	5.4	160.9	2,145.1
TOTAL =	**279.9**	**143.3**	**1,878.0**	**20,799.3**
All HUCs				
Agriculture	129.5	168.4	1,295.1	38,853.4
Barren Land	405.1	202.5	2,025.5	24,305.5
Forest	5,451.5	545.1	16,354.5	218,059.5
Urban	5,780.0	8,092.0	86,700.2	809,201.5
Water	637.6	63.8	1,912.8	25,504.3
Wetlands	1,636.1	163.6	4,908.3	65,443.4
TOTAL =	**14,039.8**	**9,235.4**	**113,196.3**	**1,181,367.7**

Impervious Cover Analysis

NJDEP's Open Data impervious surface GIS data layer depicts surfaces throughout Roxbury 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 Roxbury Township. Based upon the NJDEP impervious surface data, Roxbury Township has impervious cover totaling 18.6%. Table 3 shows impervious cover for each HUC14. The extent of the impervious cover in Roxbury 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, Roxbury Township's impervious cover percentage would suggest that its waterways are primarily impacted and most likely contribute to the degradation of the state's surface water quality standards.

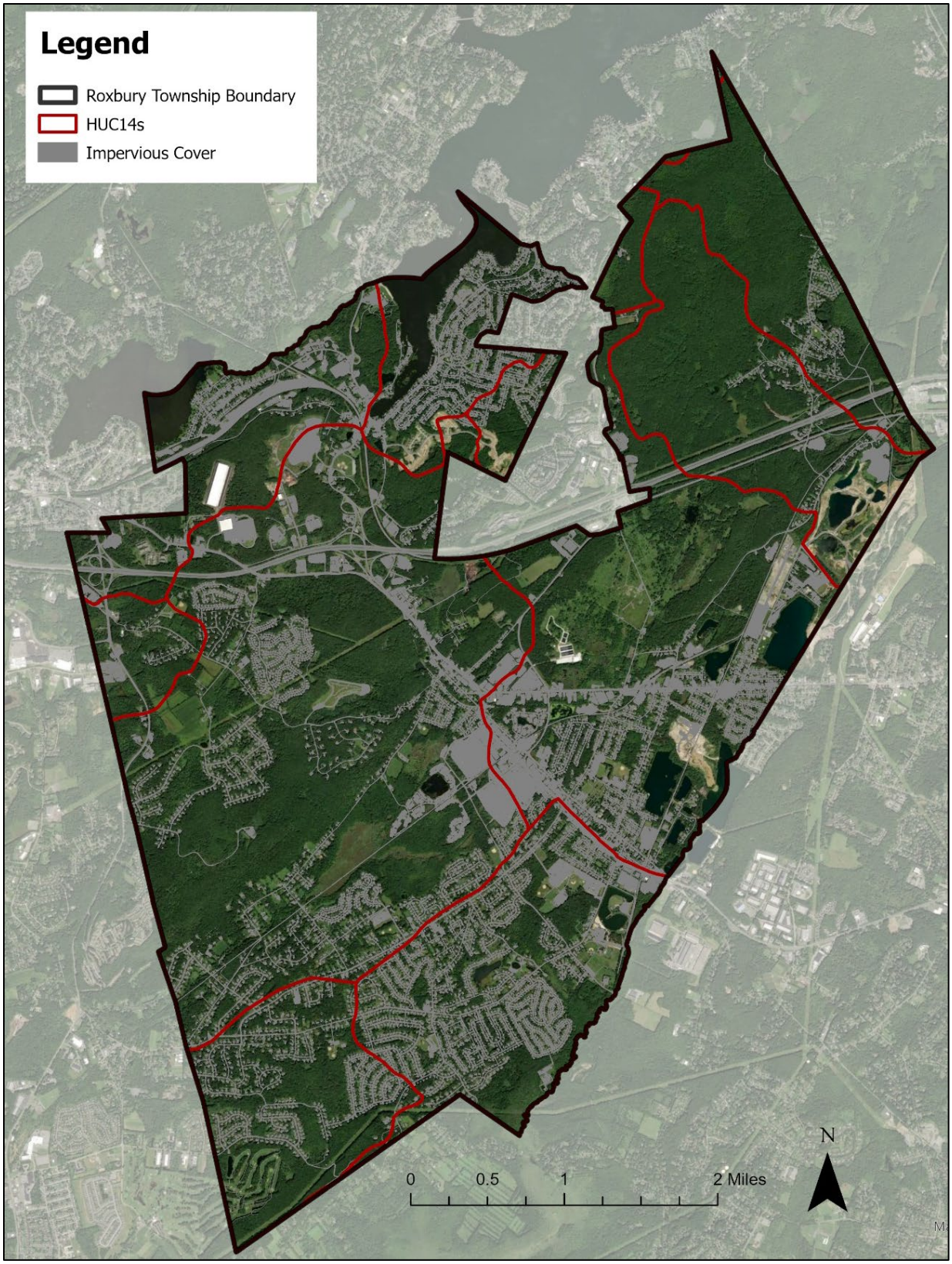


Figure 4: Impervious Cover in Roxbury Township

Table 3: Impervious Cover Analysis by HUC14 for Roxbury Township

Class	Area (acres)	HUC Impervious Cover (%)
02030103030040		
Building	7.83	
Other	25.46	
Road	22.73	
TOTAL =	**56.0**	**6.8%**
02030103030070		
Building	5.74	
Other	66.24	
Road	32.42	
TOTAL =	**104.4**	**7.9%**
02030105010010		
Building	167.69	
Other	375.83	
Road	267.92	
TOTAL =	**811.4**	**17.8%**
02030105010020		
Building	34.59	
Other	65.75	
Road	50.96	
TOTAL =	**151.3**	**15.7%**
02030105050010		
Building	108.73	
Other	345.38	
Road	153.89	
TOTAL =	**608.0**	**22.0%**
02030105050020		
Building	99.40	
Other	198.04	
Road	133.45	
TOTAL =	**430.9**	**28.5%**
02040105150020		
Building	41.41	
Other	90.82	
Road	63.44	
TOTAL =	**195.7**	**23.6%**
02040105150030		
Building	22.04	
Other	128.88	
Road	66.35	
TOTAL =	**217.3**	**22.1%**
02040105150070		
Building	5.68	
Other	16.31	
Road	14.66	
TOTAL =	**36.6**	**13.1%**

All HUCs		
Building	493.12	
Other	1,312.70	
Road	805.82	
TOTAL =	**2,611.6**	**18.6%**

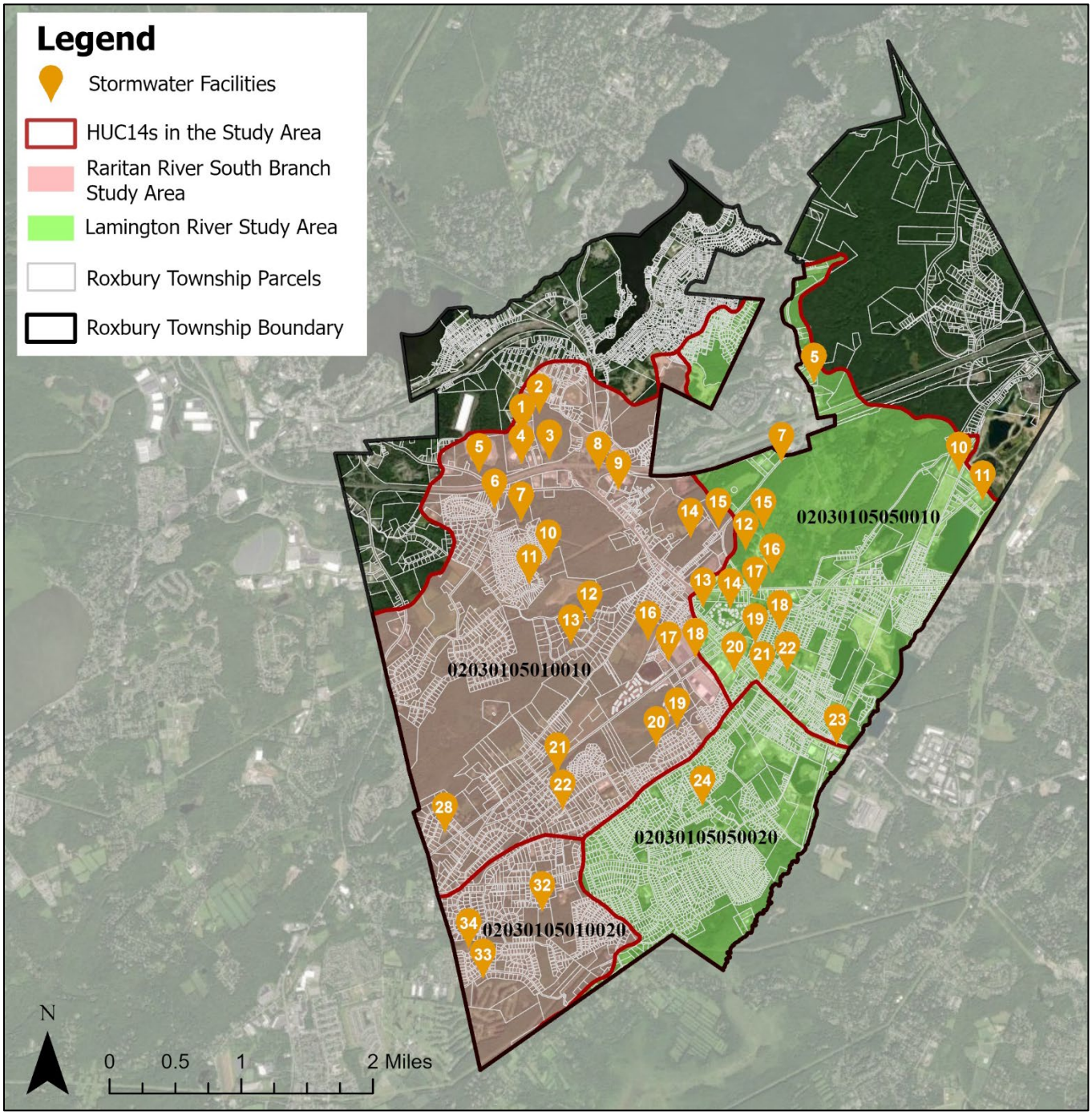


Figure 5: Stormwater Facilities in the Study Area of Roxbury Township

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

Lamington River Study Area		
ID	**Address**	**Type**
1	125 Howard Blvd	N
2	125 Howard Blvd	N
3	2 Hillside Dr	D
4	181 Howard Blvd	N
5	172-176-180 Howard Blvd	N
6	400 Valley Rd	N
7	127 Howard Blvd	N
8	500 Valley Rd	N
9	Woodmont Court	D
10	95 N Dell Ave	D
11	96 N Dell Ave	D
12	1115 Route 46, Ledge	RB
13	1131 Us-46	N
14	1103 Route 46, Ledge	D
15	1103 Route 46, Ledge	I
16	950 Route 46, Ken	D
17	950 Route 46, Ken	N
18	16 Cliff Ct	N
19	240 Route 10	R
20	235 Route 10	I
21	112 Main St	I
22	109 Main St	I
28	1578 Sussex Tpke	D
33	85 Pleasant Hill Rd	D
34	233 North Rd	N
Raritan River South Branch Study Area		
ID	**Address**	**Type**
5	1881 Route 46, Ledge	RB
7	1830 Route 46, Ledge	RB
10	138 Mountain Rd	N
11	138 Mountain Rd	N
12	8 Vanover Dr	N
13	9 Vanover Dr	N
14	1 Howard Blvd	N
15	1115 Us-46	RB
16	20 Mary Louise Ave	D
17	Righter Rd	N
18	10 Commerce Blvd	N
19	Valley Rd, Rear	N

20	Valley Rd, Rear	D
21	11 Meredith Ct	D
22	2 Shepherds Ln	D
23	8 Southwind Dr	N
24	12 Arrow Ct	N

“D” = Detention, “R” = Retention, “N” = Naturalized, “I” = Infiltration, “RB” = Retention with Buffer

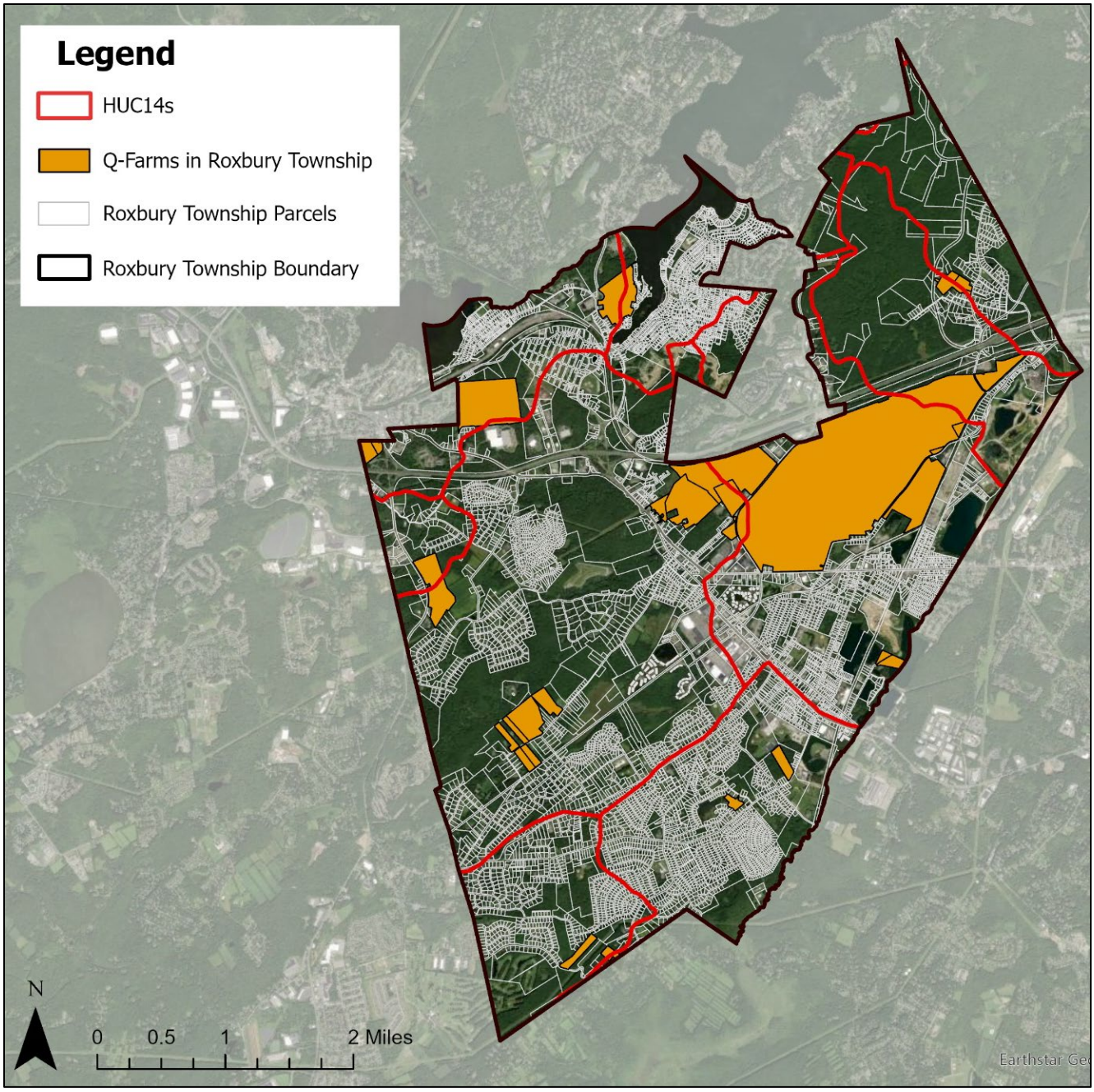


Figure 6: Q-Farm Parcels in Roxbury Township

Table 5: Q-Farm Parcels in Roxbury Township

Block	Lot	Q-Code	Prop Class	Location
51.01	7.02	QFARM	3B	316 Pleasant Hill Rd
102	54	QFARM	3B	160 Pleasant Hill Rd
102	48	QFARM	3B	12 Reger Rd
1801	13	QFARM		Eyland Ave
2202	5	QFARM	3B	30 Green Ln
2202	4	QFARM	3B	32 Green Ln
3301	12.01	QFARM	3B	40A Condit St
5503	10	QFARM	3B	208A Emmans Rd
5601	2	QFARM	3B	194 Emmans Rd
5601	3	QFARM	3B	186 Emmans Rd
5601	10	QFARM	3B	154 Emmans Rd
5701	7	QFARM	3B	219 Emmans Rd
5701	6	QFARM	3B	221 Emmans Rd
6601	33.01	QFARM	3B	5 Howard Blvd
6701	4	QFARM	3B	Berkshire Valley Rd
6701	5	QFARM	3B	Berkshire Valley Rd
6701	1	QFARM	3B	Berkshire Valley Rd
6802	11	QFARM	3B	60 Berkshire Valley Rd
7204	2	QFARM	3B	Berkshire Valley Rd
8701	1	QFARM	3B	1405 Route 46, Ledge
8901	5	QFARM	3B	Mt Arlington Rd
8901	2.02	QFARM	3B	15 Salmon Lane, Ledge
8901	2.01	QFARM	3B	15 Salmon Lane, Ledge
9002	1.01	QFARM	3B	186 Route 206
*9301	2	QFARM	3B	27 Route 183
9301	1	QFARM	3B	29 Route 183
9501	1	QFARM		Old Traveled Rd
11001	1	QFARM	3B	Lakeside Blvd
12901	4	QFARM	3B	21 Carr Ln
12901	51	QFARM	3B	283 Berkshire Valley Rd
12901	52	QFARM	3B	281 Berkshire Valley Rd

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

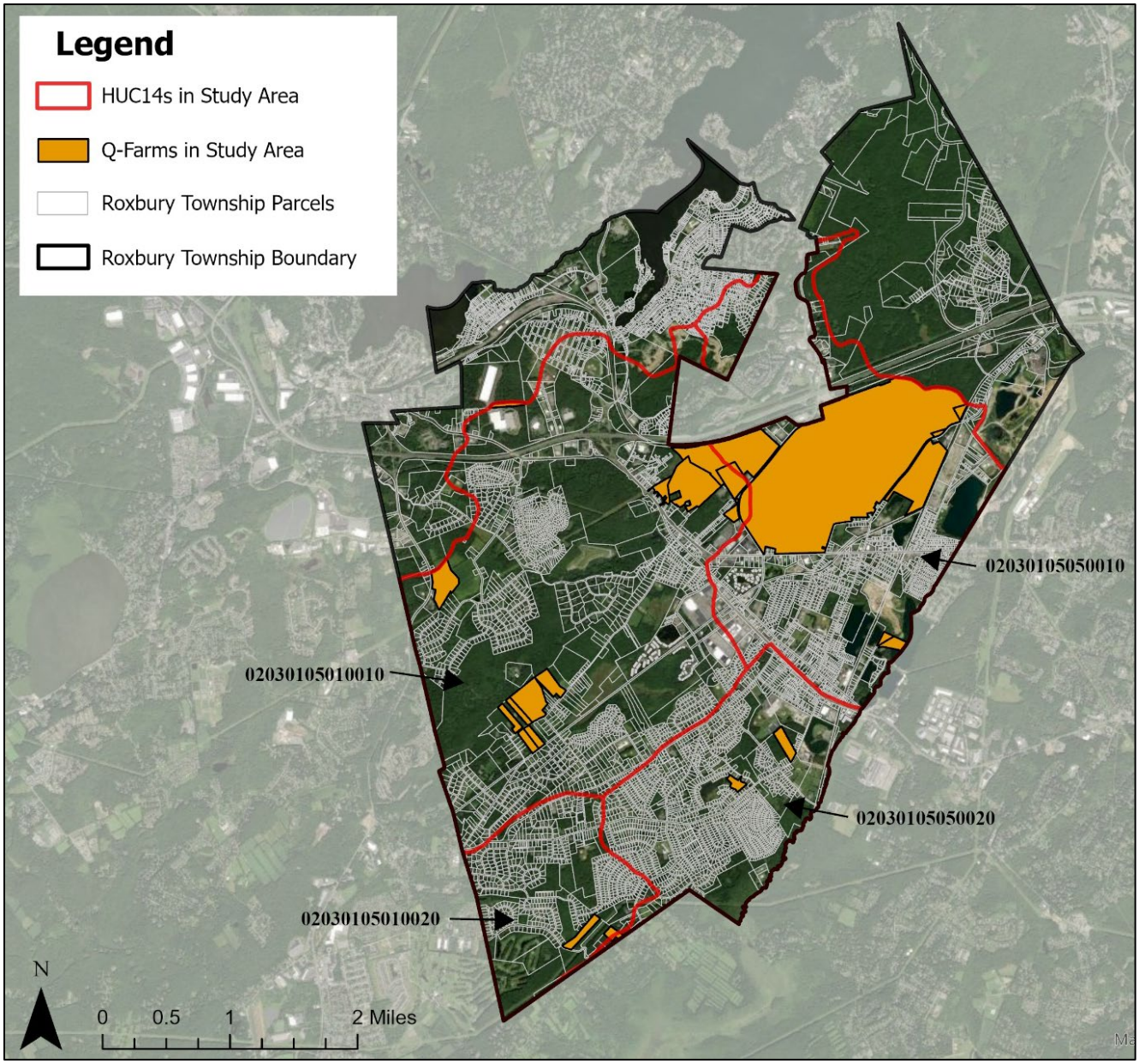


Figure 7: Q-Farm Parcels in the Study Area of Roxbury Township

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

Block	Lot	Q-Code	Prop Class	Location
51.01	7.02	QFARM	3B	316 Pleasant Hill Rd
102	54	QFARM	3B	160 Pleasant Hill Rd
102	48	QFARM	3B	12 Reger Rd
1801	13	QFARM		Eyland Ave
2202	5	QFARM	3B	30 Green Ln
2202	4	QFARM	3B	32 Green Ln
3301	12.01	QFARM	3B	40A Condit St
5503	10	QFARM	3B	208A Emmans Rd
5601	2	QFARM	3B	194 Emmans Rd
5601	3	QFARM	3B	186 Emmans Rd
5601	10	QFARM	3B	154 Emmans Rd
5701	7	QFARM	3B	219 Emmans Rd
5701	6	QFARM	3B	221 Emmans Rd
6601	33.01	QFARM	3B	5 Howard Blvd
6701	4	QFARM	3B	Berkshire Valley Rd
6701	5	QFARM	3B	Berkshire Valley Rd
*6701	1	QFARM	3B	Berkshire Valley Rd
6802	11	QFARM	3B	60 Berkshire Valley Rd
8701	1	QFARM	3B	1405 Route 46, Ledge
8901	5	QFARM	3B	Mt Arlington Rd
8901	2.02	QFARM	3B	15 Salmon Lane, Ledge
8901	2.01	QFARM	3B	15 Salmon Lane, Ledge
*9002	1.01	QFARM	3B	186 Route 206
*9501	1	QFARM		Old Traveled Rd

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

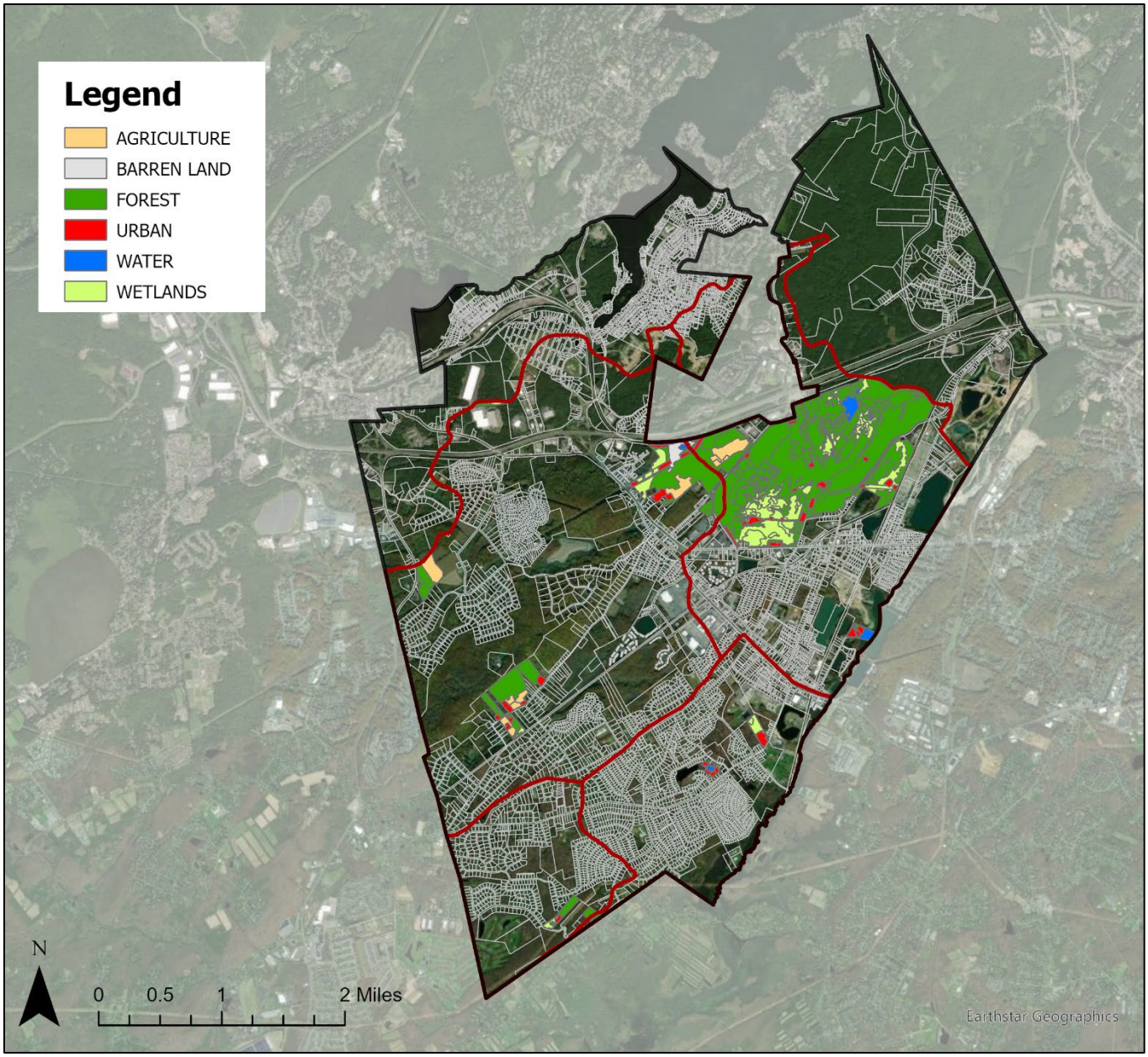


Figure 8: Land Use on Q-Farms in the Study Area of Roxbury Township

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

Land Use	Area (acres)
Agriculture	63.0
Barren Land	13.4
Forest	923.2
Urban	74.9
Water	23.6
Wetlands	184.6
Total:	**1,282.7**

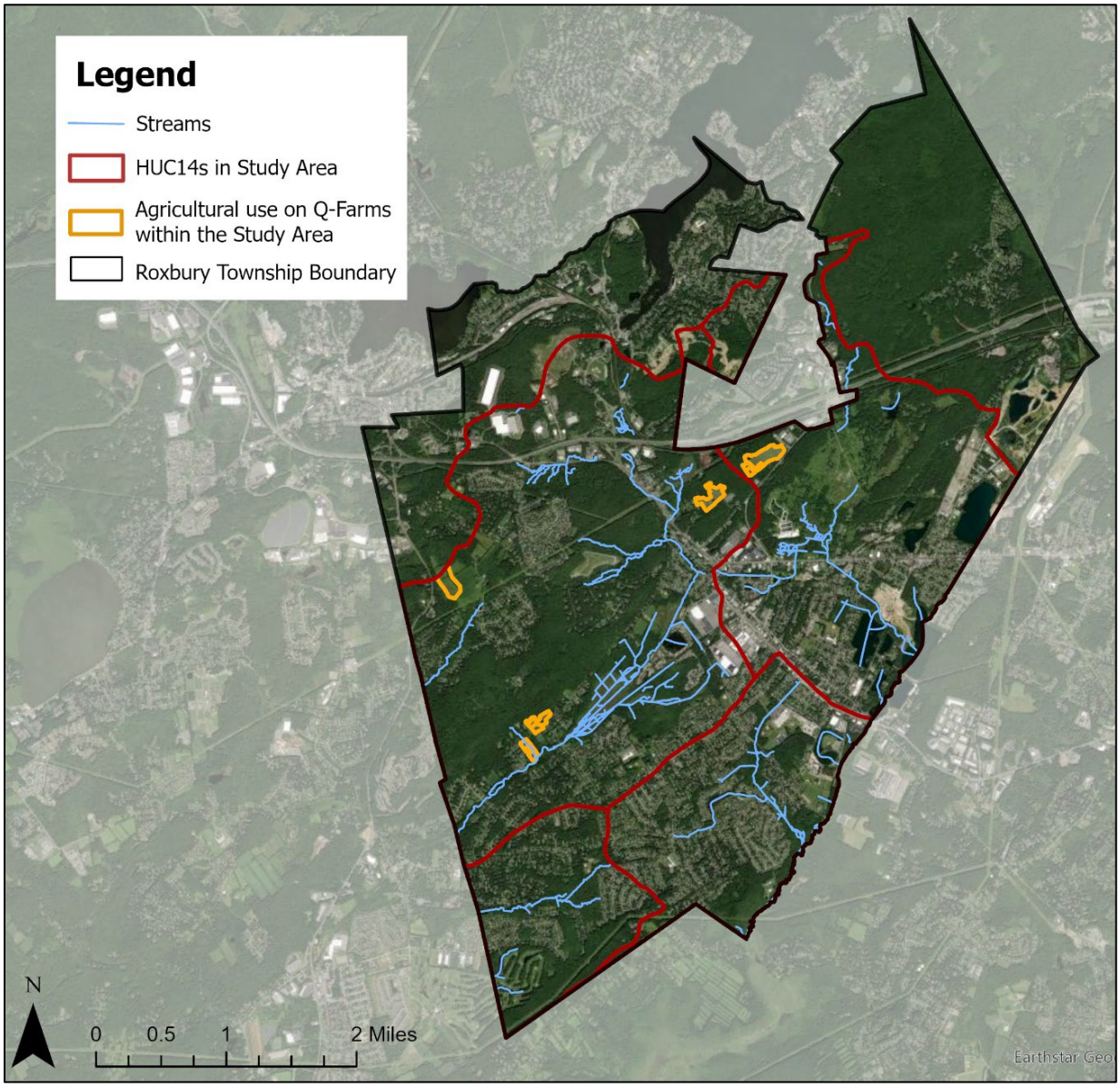


Figure 9: Aerial View of Agricultural Use on Q-Farm Parcels within the Study Area of Roxbury Township

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

Lamington River Study Area								
Block	**Lot**	**Q-Farm Code**	**Cover Crop**	**Enhanced Stream Buffer**	**Impervious Cover Mgt.**	**Rainwater Harvesting**	**Livestock Exclusion**	**Manure Mgt.**
2202	4	QFARM				X		
2202	5	QFARM				X		

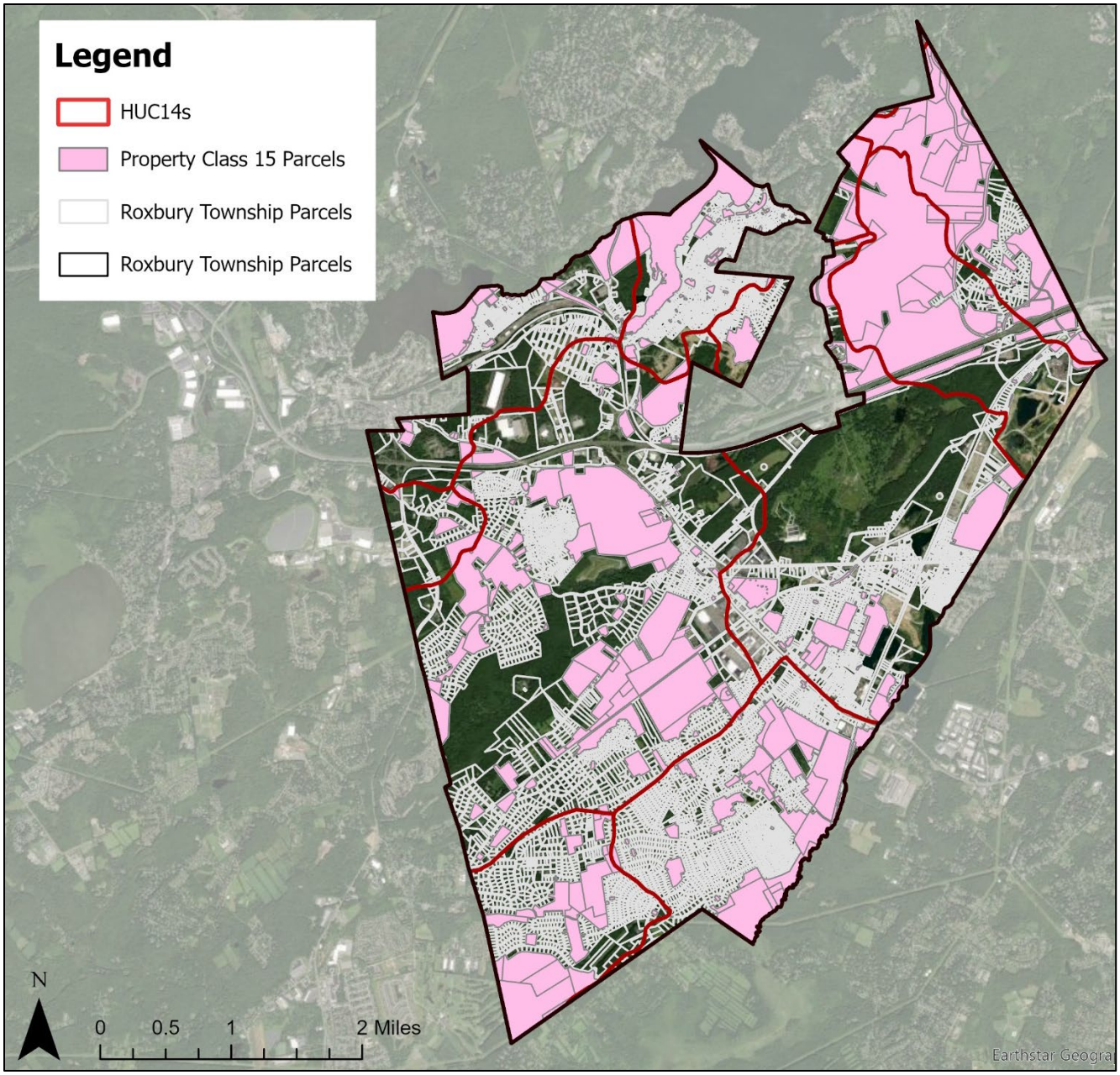


Figure 10: Property Class 15 Parcels in Roxbury Township

Table 9: Property Class 15 Parcels in Roxbury Township

Block	Lot	Prop Class	Location	Facility Type
1201	19	15A	20 Pleasant Hill Rd	School
1801	4	15A	Eyland Ave, Rear	Schools
1801	2	15A	1 Bryant Dr	School
1801	3	15A	Eyland Ave	Schools
3801	16	15A	25 Meeker St	School
3901	2	15A	N Hillside Ave	School
3901	31	15A	Meeker St	Park
4501	10	15A	19 Corn Hollow Rd	School
11601	52	15A	281 Mt Arlington Blvd	School
11903	1	15A	Mt Arlington Blvd	Tool Shed
4601	13	15B	126 S Hillside Ave	Schools
*5	16	15C	Southard Rd	Vacant Land
*43	1	15C	302 Howard Blvd	Tax Lien Foreclosure
101	6	15C	5 Reger Rd	Golf Course
101	5	15C	Reger Rd	Golf Course
101	1	15C	49 Reger Rd	Park
101	2	15C	45 Reger Rd	Vacant Land
101	14	15C	Reger Rd, Rear	Park
101	15	15C	Reger Rd	Golf Course
102	32	15C	Parkview Dr	Vacant Land
201	10	15C	Wright Ct	Vacant Land
201	2	15C	8 Phyllis Dr	Sewer Disposal
*210	22	15C	Minnisink Rd	Vacant Land
*252	3.01	15C	Minnisink Rd	Vacant Land
256	6.02	15C	Berkshire Valley Rd	Vacant Land
301	34	15C	42 Reger Rd	Vacant Land
301	1	15C	24 Phyllis Dr	Vacant Land
501	47	15C	16 Parkwood Rd	Road
503	6	15C	Golf Course Rd	Sewer Disposal
*506	7	15C	7 Zucker Ln	Land
701	2	15C	Cynthia Dr, Rear	Vacant Land
701	1	15C	2 Cynthia Dr	Vacant Land
801	1	15C	Eyland Ave - Rear	Park
801	22	15C	Parkview Dr	Vacant Land
901	32	15C	80A Toby Dr	Park
901	1	15C	Eyland Ave, Rear	Heritage Ret'N Basin
901	19	15C	9 Makin Ln	Park
1001	7	15C	Eyland Ave	Vacant Land
1401	1	15C	2 Lamington Dr	Vacant Land
1401	3	15C	Ajax Terr	Sewer Disposal
1401	5	15C	Ajax Terr	Sewer Plant
1401	4	15C	Ajax Terr	Sewer Plant
1401	2	15C	Golf Course Rd	Golf Course
1401	7	15C	Righter Rd	Golf Course
1401	6	15C	Ajax Terr	Golf Course
1505	1	15C	22 Lamington Dr	Vacant Land

1703	24	15C	Eyland Ave	Vacant Land
1705	5	15C	9 Midland Rd	Park
1801	14	15C	Eyland Ave & Righter Rd	Park
1801	1	15C	Righter Rd	Vacant Land
1802	15	15C	Righter Rd	Vacant Land
1802	14	15C	Righter Rd	Golf Course
1802	13	15C	Righter Rd	Vacant Land
1802	7	15C	72 Eyland Ave	Vacant Land
1802	11	15C	Eyland Ave - Rear	Vacant Land
1802	8	15C	25 Righter Rd	Township Hall
1802	1.02	15C	7 Righter Rd	Vacant Land
2001	2	15C	1 Main St, Succ	Lake
2001	3.02	15C	Mark Lane	Lake
2301	19.031	15C	Chesler Sq. Rear	Vacant Land
2301	19.03	15C	Kenvil Ave, Rear	Vacant Land
2301	19.02	15C	89 Kenvil Ave	Vacant Land
2404	2	15C	Academy St	Vacant Land
2614	10	15C	21 N First Ave	Tax Lien Foreclosure
*2619	8	15C	40 N First Ave	Vacant Land
2802	5	15C	281 Eyland Ave	Park
2904	9	15C	8 Alcott Way	Vacant Land
3201	27	15C	5 Apollo Ct	Road
3203	8	15C	Morningside Dr	Detention Basin
3301	28	15C	Morningside Dr	Detention Basin
3303	1	15C	39 Condit St	Vacant Land
3402	7	15C	24 Condit St	Detention Basin
3403	23	15C	Righter Rd	Vacant Land
3603	24	15C	Mapledale Ave, Rear	Sewer Disposal
3703	1	15C	60 Route 10	Jug Handle
3801	2	15C	103 Main St, Succ	Library
3901	20	15C	Spring St	Vacant Land
4001	22	15C	24 Ballantine St	Tax Lien Foreclosure
4001	2	15C	N Hillside Ave	Vacant Land
4002	13	15C	735 Route 46, Ken	Railroad
4102	2	15C	260 Emmans Rd	Vacant Land
4103	9	15C	Emmans Rd	Vacant Land
4401	30	15C	12 Tamarack Dr	Water Supply
4401	4	15C	11 Meredith Ct	Park
*4600	2	15C	123 Route 206	Park
4801	40	15C	Mt View Rd	Vacant Land
4801	1	15C	Valley Rd, Rear	Vacant Land
4901	1	15C	175 Righter Rd	Park
4901	3	15C	175 Righter Rd	Dialysis Center
4901	2	15C	Righter Rd	Vacant Land
5004	6	15C	Highland Ave	Sewer Disposal
5004	1	15C	199 Righter Rd	Vacant Land
5106	2	15C	Main St	Vacant Land
5301	18	15C	75 N Hillside Ave	Pumping Station
5403	12	15C	Emmans Rd, Rear	Well House

5501	3	15C	Emmans Rd	Detention Basin
5503	1	15C	250 Emmans Rd	Vacant Land
5702	11	15C	Sandra Ct, Rear	Vacant Land
5801	13	15C	Emmans Rd, Rear	Vacant Land
5801	12	15C	Emmans Rd, Rear	Shed
5801	11	15C	Emmans Rd	Shed
5801	10	15C	Emmans Rd	Vacant Land
5901	10	15C	132 Emmans Rd	Vacant Land
5901	1	15C	136A Emmans Rd	Vacant Land
5901	13	15C	114 Emmans Rd	Vacant Land
6001	5	15C	8 Vanover Dr	Retention Basin
6001	12	15C	35 Mountain Rd	Radio Station
6001	23	15C	Mountain Rd	Vacant Land
6101	2	15C	75 Emmans Rd	Park
6201	2	15C	Emmans Rd	Vacant Land
6405	18	15C	Canal St,Ledge	Park
6408	2	15C	211 Main St, Ledge	Historic Site
6408	1	15C	213 Main St, Ledge	Historic Site
6501	10	15C	197 Main St, Ledge	Shed
6501	9	15C	181 Main St, Ledge	Vacant Land
6901	2	15C	56 N Dell Ave	Playground
7101	8	15C	96 N Dell Ave	Dpw Garage
7101	22	15C	N Dell Ave, Rear	Vacant Land
7101	25.04	15C	404 W Dewey Ave	Vacant Land
7101	25.03	15C	402 W Dewey Ave	Vacant Land
7101	25.02	15C	400 W Dewey Ave	Vacant Land
7101	25.01	15C	398 W Dewey Ave	Vacant Land
7204	21	15C	411 W Dewey Ave	Vacant Land
7301	1	15C	Route 206	Vacant Land
7402	9	15C	9 Vanover Dr	Retention Basin
7404	2.02	15C	62 Mountain Rd	Vacant Land
7501	23	15C	Emmans Rd	Park
7501	10	15C	Mountain Rd, Rear	Park
7501	11	15C	Mountain Rd	Park
7701	26	15C	195 Mooney Rd	Vacant Land
7701	2	15C	30 Patricia Dr	Vacant Land
7701	1	15C	32 Patricia Dr	Vacant Land
7701	27	15C	10 Mildred Ter	Playground
7801	1	15C	31 Patricia Dr	Sewer Plant
7905	3	15C	Lincoln Dr, Rear	Vacant Land
8002	12	15C	125 Mountain Rd	Vacant Land
8101	2	15C	Conkling Rd, Rear	Pumping Station
8101	1	15C	99 Mooney Rd	Vacant Land
8403	25	15C	138 Mountain Rd	Vacant Land
8501	12	15C	Route 46, Ledge	Park
8501	8	15C	Route 46, Ledge, Rear	Vacant Land
8501	7	15C	Route 46, Ledge, Rear	Vacant Land
8501	4	15C	1830 Route 46, Ledge	Vacant Land
8501	5	15C	1750 Route 46, Ledge	Park

8501	4	15C	1830 Route 46, Ledge	Com/Ind Purpose
8501	5	15C	1750 Route 46, Ledge	Com/Ind Purpose
8501	5	15C	1750 Route 46, Ledge	Com/Ind Purpose
8602	28	15C	Arlington Ave	Tax Lien Foreclosure
8602	25	15C	Arlington Ave	Vacant Land
8602	26	15C	Arlington Ave	Tax Lien Foreclosure
8602	27	15C	Arlington Ave	Vacant Land
8701	2	15C	Drake Ave	Jughandle
9002	7	15C	180 Mooney Rd	Vacant Land
9002	3	15C	Mooney Rd, Rear	Water Tank
9002	1.02	15C	102 Mooney Rd	Vacant Land
9103	16	15C	Timberline Dr	Pump House
9202	4.25	15C	2 Fox Chase Ln	Drainage
9202	22	15C	Mountain Rd	Park
9202	3	15C	Route 80	Vacant Land
9203	6	15C	18 Hampton Ct	Well-Retention Basin
9302	4	15C	1450 Route 46, Ledge	Vacant Land
9303	8	15C	85 Route 206	Police Station
9401	19	15C	12 Route 206	Maintenance Bldg
9401	2	15C	Mc Mullen St	Vacant Land
9401	12	15C	Mc Mullen St	Vacant Land
9603	5	15C	1715 Route 46, Ledge	Municipal Bldg
9701	1	15C	Shippenport Rd	Vacant Land
9701	2	15C	Shippenport Rd	Vacant Land
9701	5	15C	Shippenport Rd	Vacant Land
9702	21	15C	Orben Dr,Rear	Vacant Land
9707	8	15C	28 Harriet Way	Vacant Land
9707	10	15C	Roosevelt Way	Vacant Land
9707	11	15C	Roosevelt Way	
9707	14	15C	Roosevelt Way	Vacant Land
9801	6	15C	Kings Hwy	Vacant Land
10012	1	15C	2Nd Ave, Landing	Park
10020	10	15C	130 Ledge-Landing Rd	Commercial Bldg.
10020	9	15C	124 Ledge-Landing Rd	Commercial Bldg.
10101	8	15C	229 Ledge-Landing Rd	Tax Lien Foreclosure
10101	13	15C	Ledge-Landing Rd,Rear	Tax Lien Foreclosure
10101	23	15C	165 Ledge-Landing Rd	Vacant Land
10101	49	15C	101 Ledge-Landing Rd	Com/Ind Purpose
10101	35	15C	130 Shippenport Rd	Vacant Land
10201	3	15C	7 Orben Dr	Vacant Land
10201	4	15C	Orben Dr	Vacant Land
10301	1	15C	354 Center St	Vacant Land
10301	7	15C	Main St, Land, Rear	Canal
10301	11	15C	Main St, Land, Rear	Canal
10301	21	15C	Lake St, Rear	Canal
10301	25	15C	Palmer St, Rear	Canal
10301	26	15C	Lake Musconetcong	Game Preserve
10401	1	15C	323 Center St	Vacant Land
10405	12	15C	23 Washington St	Park

10406	1	15C	Washington St	Park
10407	2	15C	River St	Vacant Land
10407	1	15C	River St	Park
10407	3	15C	River St	Vacant Land
10501	9	15C	36 Washington St	Playground
10501	14	15C	597 Main St, Land	Vacant Land
10501	34	15C	Center St Rear	Game Preserve
10502	5	15C	580 Main St, Land	Volunteer Fire Co
10503	42	15C	219 Center St	Vacant Land
10503	43	15C	Center St	Vacant Land
10601	1	15C	180 Center St	Vacant Land
10602	1	15C	185 Center St	Vacant Land
10701	2	15C	170 Center St	Well
10801	1	15C	Lakeside Blvd	Vacant Land
10802	1	15C	Lakeside Blvd	Park
10901	7	15C	113 Center St	Well
10903	3	15C	117 Lakeside Blvd	Commercial Bldg.
10903	2	15C	119 Lakeside Blvd	Road
10903	1	15C	121 Lakeside Blvd	Administrative Bldg.
10904	3	15C	105 Lakeside Blvd	Road
10904	1	15C	109 Lakeside Blvd	Commercial Bldg.
10905	1	15C	104 Ledge-Landing Rd	Road
11101	1	15C	Lakeside Blvd	Vacant Land
11102	20	15C	2 Ford Rd	Well
11102	3	15C	Shippenport Rd, Rear	Water Supply
11105	28	15C	31 Ford Rd	Vacant Land
11105	16	15C	50 Vail Rd	Vacant Land
11204.04	34	15C	Williams Rd	Vacant Land
11301	4	15C	59 Vail Rd	Vacant Land
11301	10	15C	170 Mt Arlington Blvd	Pumping Station
11308	35	15C	Condict Rd	Vacant Land
11403	3	15C	504 Henmar Dr	Tax Lien Foreclosure
11408	2	15C	192 Mt Arlington Blvd	Playground
11410	1	15C	Rogers Dr	Pond
11501	1	15C	Lake Hopatcong	Game Preserve
11105	28	15C	31 Ford Rd	Vacant Land
11105	16	15C	50 Vail Rd	Vacant Land
11204.04	34	15C	Williams Rd	Vacant Land
11301	4	15C	59 Vail Rd	Vacant Land
11301	10	15C	170 Mt Arlington Blvd	Pumping Station
11308	35	15C	Condict Rd	Vacant Land
11403	3	15C	504 Henmar Dr	Tax Lien Foreclosure
11408	2	15C	192 Mt Arlington Blvd	Playground
11410	1	15C	Rogers Dr	Pond
11501	1	15C	Lake Hopatcong	Game Preserve
11704	7	15C	Williams Rd, Rear	Road Barrier
11705	24	15C	Jeffrey Rd, Rear	Vacant Land
11705	9	15C	3 Jocelyn Rd	Park
*11802	1	15C	501 Edith Rd	Vacant Land

11902	1	15C	1 Auriemma Ct	Vacant Land
11911	6	15C	King Rd	Vacant Land
11913	7	15C	Mt Arlington Blvd	Pumping Station
11913	4	15C	Mt Arlington Blvd	Vacant Land
11913	6	15C	King Rd	Pumping Station
11913	12	15C	King Rd	Vacant Land
12002	4	15C	270 Mt Arlington Blvd	Vacant Land
12005	11	15C	Ogden Rd	Vacant Land
12006	5	15C	501 Atlas Rd	Tax Lien Foreclosure
12006	6	15C	529 Logan Dr	Tax Lien Foreclosure
12006	3	15C	509 Atlas Rd	Vacant Land
12006	1	15C	536 Wills Rd	Vacant Land
12006	4	15C	503 Atlas Rd	Tax Lien Foreclosure
12006	7	15C	525 Logan Dr	Vacant Land
12006	9	15C	519 Logan Dr	Vacant Land
12006	2	15C	Ogden Rd	Vacant Land
12007	1	15C	522 Ogden Rd	Vacant Land
12007	2	15C	524 Ogden Rd	Vacant Land
12007	3	15C	526 Ogden Rd	Vacant Land
12012	9	15C	328 Mt Arlington Blvd	Vacant Land
12012	2	15C	310 Mt Arlington Blvd	Vacant Land
12102	14	15C	54 Oneida Ave	Vacant Land
12103	2	15C	374 Mt Arlington Blvd	Vacant Land
12104	1	15C	57 Iroquois Ave	Tax Lien Foreclosure
12104	3	15C	63 Iroquois Ave	Vacant Land
12104	4	15C	67 Iroquois Ave	Vacant Land
12107	8	15C	52 Cayuga Ave	Vacant Land
12107	10	15C	58 Cayuga Ave	Vacant Land
12301	1	15C	200 Stierli Ct	Office Bldg
12301	3	15C	170 Howard Blvd	Vacant Land
12401	3	15C	Minisink Rd, Rear	Vacant Land
12401	1	15C	Route 80	Vacant Land
12402	2	15C	Route 80	Vacant Land
12501	2	15C	Berkshire Valley Rd	Vacant Land
12501	31	15C	245 Berkshire Valley Rd	Vacant Land
12501	24.02	15C	3 Stone Cottage Ln	Drainage
12501	27	15C	Berkshire Valley Rd	Vacant Land
12501	21	15C	271 Berkshire Valley Rd	Volunteer Fire Co
12602	17	15C	Berkshire Valley Rd Rear	Game Preserve
12602	21	15C	Berkshire Valley Rd,Rear	Vacant Land
12701	4	15C	Mill Pond Rd	Vacant Land
12701	5	15C	Mill Pond Rd	Vacant Land
12702	7	15C	Mill Rd	Vacant Land
12703	1	15C	353 Mill Rd	Vacant Land
12703	3	15C	Mill Rd	Vacant Land
12704	1	15C	Little Lane, Rear	Vacant Land
12705	1	15C	Mill Rd	Vacant Land
12705	2	15C	Little Ln	Vacant Land
12705	3	15C	Mill Rd	Vacant Land

12706	1	15C	Mill Rd	Vacant Land
12706	2	15C	Mill Rd	Vacant Land
12706	3	15C	Mill Rd	Vacant Land
12801	2	15C	Gordon Rd, Rear	Vacant Land
12801	1	15C	Gordon Rd, Rear	Recreation
12801	9	15C	Gordon Rd, Rear	Vacant Land
12801	8	15C	44 Gordon Rd	Vacant Land
12801	10	15C	Gordon Rd, Rear	Vacant Land
12901	50	15C	Will Lane, Rear	Vacant Land
12901	11	15C	Route 80	Vacant Land
12901	13	15C	Berkshire Valley Rd, Rear	Vacant Land
12901	15	15C	Berkshire Valley Rd, Rear	Rifle Range
12901	14	15C	Berkshire Valley Rd, Rear	Vacant Land
12901	17	15C	Berkshire Valley Rd	Vacant Land
12901	19	15C	Berkshire Valley Rd	Vacant Land
12901	12	15C	Berkshire Valley Rd	Vacant Land
12901	21	15C	Minisink Rd, Rear	Vacant Land
12901	22	15C	Berkshire Valley Rd	Vacant Land
12901	20	15C	Berkshire Valley Rd,Rear	Vacant Land
12901	34	15C	315 Berkshire Valley Rd	Vacant Land
13002	11	15C	79 Mill Rd	Nutrition Center
13004	14	15C	84A Mill Rd	Vacant Land
13103	12	15C	19 Mettle Ln	Well
13201	1	15C	250 Howard Blvd	Vacant Land
13201	2	15C	240 Howard Blvd	Vacant Land
13201	10	15C	Howard Blvd, Rear	Vacant Land
13201	5	15C	Larson Ln Rear	Vacant Land
13202	1	15C	Howard Blvd	Vacant Land
13301	16	15C	Minisink Rd	Vacant Land
13301	17	15C	Minisink Rd	Vacant Land
13301	13	15C	Howard Blvd Rear	Vacant Land
13301	6	15C	Berkshire Ave Mt Ar Rear	Vacant Land
13301	5	15C	Berkshire Ave Rear	Vacant Land
13301	11	15C	Howard Blvd, Rear	Vacant Land
13301	15	15C	Minisink Rd	Vacant Land
13301	10	15C	Chestnut St, Rear	Vacant Land
13301	12	15C	Minisink Rd, Rear	Vacant Land
13302	1	15C	Minisink Rd	Vacant Land
13401	14	15C	Parker Rd, Rear	L Hopatcong Pipeline
13401	15	15C	Howard Blvd Rear	Vacant Land
1003	2	15D	4 Ridge Rd	Dormitory
2611	24	15D	102A S First Ave	Dormitory
2802	20	15D	217 S Hillside Ave	Synagogue
2904	2	15D	185 S Hillside Ave	Church
3005	30	15D	203 Eyland Ave	Church
3102	4	15D	1 Tonneson Dr	Parsonage
3103	1	15D	113 S Hillside Ave	Church
3604	3	15D	7 Hunter St	Rectory
3801	1	15D	Kenvil Ave, Rear	Church

3801	20	15D	91 Main St, Succ	Church&Cemetery
3801	19	15D	99 Main St, Succ	Church&Cemetery
3802	7	15D	98 Main St, Succ	Parsonage
4103	3	15D	319 Emmans Rd	Dormitory
5103	1.01	15D	145 Main St, Succ	Church
5701	8	15D	197 Emmans Rd	Rectory
5701	9	15D	197 Emmans Rd	Church
6406	5.01	15D	233 Main St	Parsonage
6501	2.262	15D	87 Drake Ln	Group Home
6501	2.154	15D	134 Drake Ln	Dormitory
6501	2.023	15D	216 Drake Ln	Dormitory
6501	2.151	15D	128 Drake Ln	Group Home
6501	2.143	15D	118 Drake Ln	Dormitory
6501	2.171	15D	170 Drake Ln	Group Home
6501	2.191	15D	184 Drake Ln	Dormitory
6501	2.202	15D	200 Drake Ln	Group Home
6501	2.254	15D	77 Drake Ln	Group Home
8001	1	15D	1 Kennedy Dr	Dormitory
8201	11	15D	152 Mountain Rd	Group Home
8201	9	15D	156 Mountain Rd	Church
8403	24	15D	34 Lazarus Dr	Parsonage
9302	2	15D	1500 Route 46, Ledge	Church
9402	11	15D	1915 Route 46, Ledge	Dog Pound
9402	10	15D	1919 Route 46, Ledge	Dog Pound
10101	30	15D	125 Ledge-Landing Rd	Administrative Bldg.
10403	4	15D	540 Main St, Land	Parking Area
10403	5	15D	296 Center St	Church
10403	6	15D	546 Main St, Land	Parsonage
13002	1	15D	294 Berkshire Valley Rd	Jewish Organization
501	6	15F	59 Pleasant Hill Rd	Disabled Veteran
1001	6	15F	260 Eyland Ave	Disabled Veteran
1002	3	15F	248 Eyland Ave	Disabled Veteran
1102	20	15F	75 Toby Dr	Disabled Veteran
1302	24	15F	7 Lamington Dr	Disabled Veteran
1604	9	15F	10 Carol Dr	Disabled Veteran
1905	19	15F	17-19 Route 10	Common Element
2107	7	15F	3 Chesler Ter	Disabled Veteran
2301	4	15F	49 Kenvil Ave	Disabled Veteran
3906	3	15F	4 Corwin St	Disabled Veteran
4403	6	15F	39 Tamarack Dr	Disabled Veteran
4701	1	15F	140 Woods Edge Dr	Common Element
4803	23	15F	3 Mt View Rd	Disabled Veteran
5201	6	15F	124 Main St, Succ	Volunteer Fire Co
5203	37	15F	3 Cliff Ct	Disabled Veteran
5203	57	15F	119-121 Main St, Succ	Common Element
5901	15	15F	102 Emmans Rd	Disabled Veteran
6201	3	15F	Willow Walk Righter Rd	Common Element
6201	5.2	15F	Righter Rd	Common Element
6303	9	15F	15 Riggs Ave	Disabled Veteran

6401	6	15F	4 Nalron Dr	Disabled Veteran
6403	38	15F	3 Canal St,Ledge	Disabled Veteran
6501	2	15F	Main St	Common Element
6501	2.156	15F	138 Drake Ln	Disabled Veteran
7204	9	15F	377 W Dewey Ave	Disabled Veteran
7204	4	15F	West Dewey Ave	Common Element
7401	9	15F	19 Lookout Dr	Disabled Veteran
8201	15	15F	144 Mountain Rd	Disabled Veteran
9102	15	15F	20 Timberline Dr	Disabled Veteran
9701	7	15F	Orben Dr	Canal
10020	7	15F	Kings Highway	Common Element
10101	41	15F	110 Shippenport Rd	Volunteer Fire Co
10902	7	15F	333 Boonton St	Disabled Veteran
11101	31	15F	171 Mt Arlington Blvd	Disabled Veteran
11306	34	15F	67 Salmon Rd	Disabled Veteran
11313	8	15F	20 Salmon Rd	Disabled Veteran
11314	37	15F	92 Mansel Dr	Disabled Veteran
11703	6	15F	510 Curtis Rd	Disabled Veteran
11801	22	15F	504 Dell Rd	Disabled Veteran
11903	3	15F	295 Mt Arlington Blvd	Disabled Veteran
11909	3	15F	11 King Rd	Disabled Veteran
12014	24	15F	641 Succasunna Rd	Disabled Veteran
12201	1	15F	172-176-180 Howard Blvd	Common Element
12901	53	15F	273 Berkshire Valley Rd	Disabled Veteran
13001	5	15F	4 Birch Ln	Disabled Veteran

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

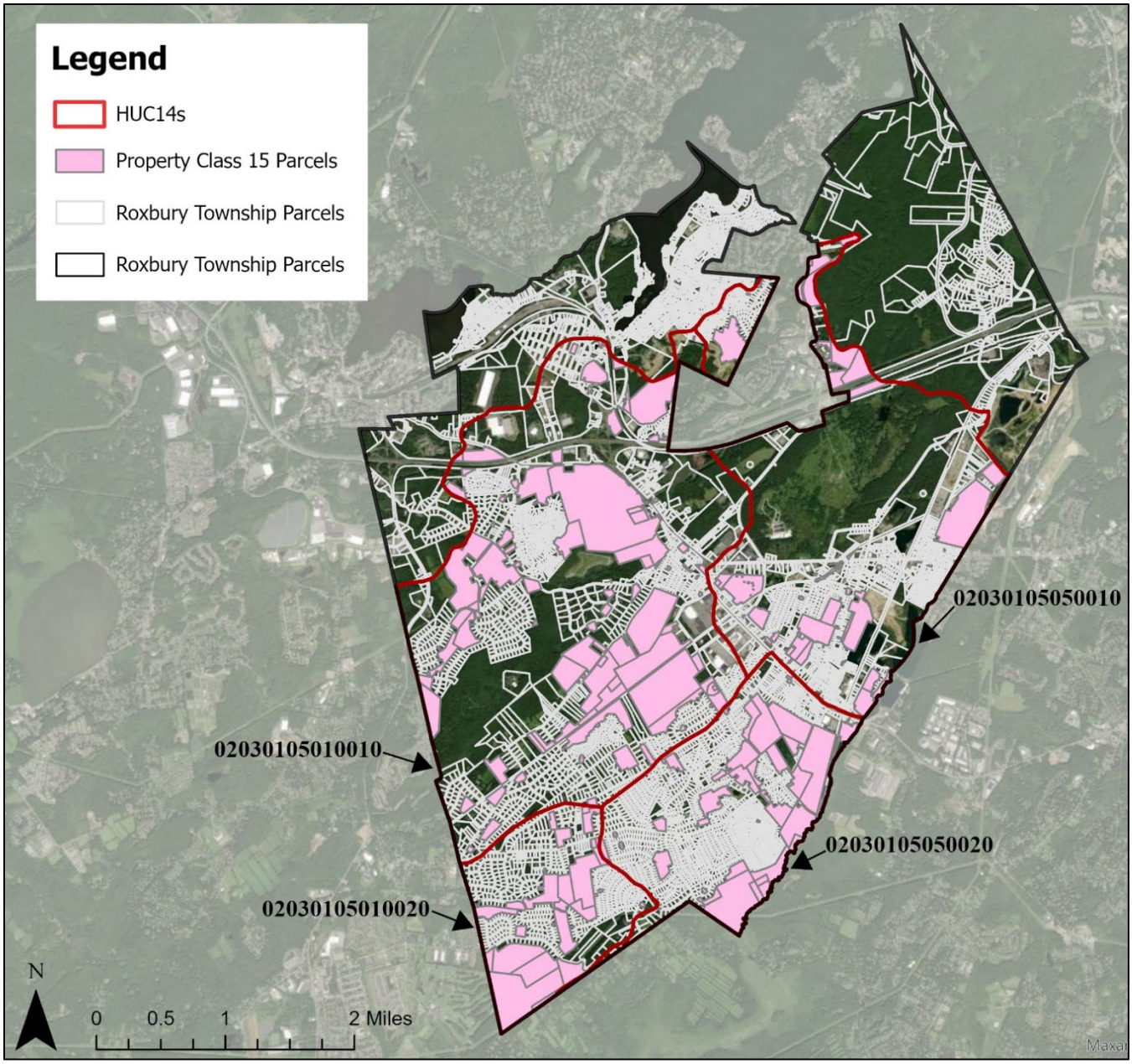


Figure 11: Property Class 15 parcels in the Study Area of Roxbury Township

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

Block	Lot	Prop Class	Location	Facility Type
***1201**	**19**	**15A**	**20 Pleasant Hill Rd**	**School**
1801	4	15A	Eyland Ave, Rear	Schools
***1801[1]**	**2**	**15A**	**1 Bryant Dr**	**School**
***1801[1]**	**3**	**15A**	**Eyland Ave**	**Schools**
3801	16	15A	25 Meeker St	School
***3901**	**2**	**15A**	**N Hillside Ave**	**School**
3901	31	15A	Meeker St	Park
***4501**	**10**	**15A**	**19 Corn Hollow Rd**	**School**
***4601**	**13**	**15B**	**126 S Hillside Ave**	**Schools**
101	6	15C	5 Reger Rd	Golf Course
101	5	15C	Reger Rd	Golf Course
101	1	15C	49 Reger Rd	Park
101	2	15C	45 Reger Rd	Vacant Land
101	14	15C	Reger Rd, Rear	Park
101	15	15C	Reger Rd	Golf Course
102	32	15C	Parkview Dr	Vacant Land
201	10	15C	Wright Ct	Vacant Land
201	2	15C	8 Phyllis Dr	Sewer Disposal
301	34	15C	42 Reger Rd	Vacant Land
301	1	15C	24 Phyllis Dr	Vacant Land
501	47	15C	16 Parkwood Rd	Road
503	6	15C	Golf Course Rd	Sewer Disposal
506	7	15C	7 Zucker Ln	Land
701	2	15C	Cynthia Dr, Rear	Vacant Land
701	1	15C	2 Cynthia Dr	Vacant Land
801	1	15C	Eyland Ave - Rear	Park
801	22	15C	Parkview Dr	Vacant Land
901	32	15C	80A Toby Dr	Park
901	1	15C	Eyland Ave, Rear	Heritage Ret'N Basin
***901**	**19**	**15C**	**9 Makin Ln**	**Park**
1001	7	15C	Eyland Ave	Vacant Land
1401	1	15C	2 Lamington Dr	Vacant Land
1401	3	15C	Ajax Terr	Sewer Disposal
1401	5	15C	Ajax Terr	Sewer Plant
1401	4	15C	Ajax Terr	Sewer Plant
1401	2	15C	Golf Course Rd	Golf Course
1401	7	15C	Righter Rd	Golf Course
1401	6	15C	Ajax Terr	Golf Course
1505	1	15C	22 Lamington Dr	Vacant Land
1703	24	15C	Eyland Ave	Vacant Land
1705	5	15C	9 Midland Rd	Park
1801	14	15C	Eyland Ave & Righter Rd	Park
1801	1	15C	Righter Rd	Vacant Land
1802	15	15C	Righter Rd	Vacant Land
1802	14	15C	Righter Rd	Golf Course
1802	13	15C	Righter Rd	Vacant Land

1802	7	15C	72 Eyland Ave	Vacant Land
1802	11	15C	Eyland Ave - Rear	Vacant Land
***1802**	**8**	**15C**	**25 Righter Rd**	**Township Hall**
1802	1.02	15C	7 Righter Rd	Vacant Land
2001	2	15C	1 Main St, Succ	Lake
2001	3.02	15C	Mark Lane	Lake
2301	19.031	15C	Chesler Sq. Rear	Vacant Land
2301	19.03	15C	Kenvil Ave, Rear	Vacant Land
2301	19.02	15C	89 Kenvil Ave	Vacant Land
2404	2	15C	Academy St	Vacant Land
2614	10	15C	21 N First Ave	Tax Lien Foreclosure
2619	8	15C	40 N First Ave	Vacant Land
***2802**	**5**	**15C**	**281 Eyland Ave**	**Park**
2904	9	15C	8 Alcott Way	Vacant Land
3201	27	15C	5 Apollo Ct	Road
3203	8	15C	Morningside Dr	Detention Basin
3301	28	15C	Morningside Dr	Detention Basin
3303	1	15C	39 Condit St	Vacant Land
3402	7	15C	24 Condit St	Detention Basin
3403	23	15C	Righter Rd	Vacant Land
3603	24	15C	Mapledale Ave, Rear	Sewer Disposal
3703	1	15C	60 Route 10	Jug Handle
3801	2	15C	103 Main St, Succ	Library
3901	20	15C	Spring St	Vacant Land
2619	8	15C	40 N First Ave	Vacant Land
2802	5	15C	281 Eyland Ave	Park
2904	9	15C	8 Alcott Way	Vacant Land
3201	27	15C	5 Apollo Ct	Road
3203	8	15C	Morningside Dr	Detention Basin
3301	28	15C	Morningside Dr	Detention Basin
3303	1	15C	39 Condit St	Vacant Land
3402	7	15C	24 Condit St	Detention Basin
3403	23	15C	Righter Rd	Vacant Land
3603	24	15C	Mapledale Ave, Rear	Sewer Disposal
3703	1	15C	60 Route 10	Jug Handle
3801	2	15C	103 Main St, Succ	Library
3901	20	15C	Spring St	Vacant Land
4001	22	15C	24 Ballantine St	Tax Lien Foreclosure
4001	2	15C	N Hillside Ave	Vacant Land
4002	13	15C	735 Route 46, Ken	Railroad
4102	2	15C	260 Emmans Rd	Vacant Land
4103	9	15C	Emmans Rd	Vacant Land
4401	30	15C	12 Tamarack Dr	Water Supply
4401	4	15C	11 Meredith Ct	Park
4600	2	15C	123 Route 206	Park
4801	40	15C	Mt View Rd	Vacant Land
4801	1	15C	Valley Rd, Rear	Vacant Land
4901	1	15C	175 Righter Rd	Park
4901	3	15C	175 Righter Rd	Dialysis Center

4901	2	15C	Righter Rd	Vacant Land
5004	6	15C	Highland Ave	Sewer Disposal
5004	1	15C	199 Righter Rd	Vacant Land
5106	2	15C	Main St	Vacant Land
5301	18	15C	75 N Hillside Ave	Pumping Station
5403	12	15C	Emmans Rd, Rear	Well House
5501	3	15C	Emmans Rd	Detention Basin
5503	1	15C	250 Emmans Rd	Vacant Land
5702	11	15C	Sandra Ct, Rear	Vacant Land
5801	13	15C	Emmans Rd, Rear	Vacant Land
5801	12	15C	Emmans Rd, Rear	Shed
5801	11	15C	Emmans Rd	Shed
5801	10	15C	Emmans Rd	Vacant Land
5901	10	15C	132 Emmans Rd	Vacant Land
5901	1	15C	136A Emmans Rd	Vacant Land
5901	13	15C	114 Emmans Rd	Vacant Land
6001	5	15C	8 Vanover Dr	Retention Basin
6001	12	15C	35 Mountain Rd	Radio Station
6001	23	15C	Mountain Rd	Vacant Land
6101	2	15C	75 Emmans Rd	Park
6201	2	15C	Emmans Rd	Vacant Land
6405	18	15C	Canal St, Ledge	Park
***6408**	**2**	**15C**	**211 Main St, Ledge**	**Historic Site**
6408	1	15C	213 Main St, Ledge	Historic Site
6501	10	15C	197 Main St, Ledge	Shed
6501	9	15C	181 Main St, Ledge	Vacant Land
6901	2	15C	56 N Dell Ave	Playground
7101	8	15C	96 N Dell Ave	Dpw Garage
7301	1	15C	Route 206	Vacant Land
7402	9	15C	9 Vanover Dr	Retention Basin
7404	2.02	15C	62 Mountain Rd	Vacant Land
7501	23	15C	Emmans Rd	Park
7501	10	15C	Mountain Rd, Rear	Park
7501	11	15C	Mountain Rd	Park
7701	26	15C	195 Mooney Rd	Vacant Land
7701	2	15C	30 Patricia Dr	Vacant Land
7701	1	15C	32 Patricia Dr	Vacant Land
7701	27	15C	10 Mildred Ter	Playground
7801	1	15C	31 Patricia Dr	Sewer Plant
7905	3	15C	Lincoln Dr, Rear	Vacant Land
8002	12	15C	125 Mountain Rd	Vacant Land
8101	2	15C	Conkling Rd, Rear	Pumping Station
8101	1	15C	99 Mooney Rd	Vacant Land
8403	25	15C	138 Mountain Rd	Vacant Land
8501	12	15C	Route 46, Ledge	Park
8501	8	15C	Route 46, Ledge, Rear	Vacant Land
8501	7	15C	Route 46, Ledge, Rear	Vacant Land
8501	4	15C	1830 Route 46, Ledge	Vacant Land
8501	5	15C	1750 Route 46, Ledge	Park

8501	4	15C	1830 Route 46, Ledge	Com/Ind Purpose
8501	5	15C	1750 Route 46, Ledge	Com/Ind Purpose
8501	5	15C	1750 Route 46, Ledge	Com/Ind Purpose
8602	28	15C	Arlington Ave	Tax Lien Foreclosure
8602	25	15C	Arlington Ave	Vacant Land
8602	26	15C	Arlington Ave	Tax Lien Foreclosure
8602	27	15C	Arlington Ave	Vacant Land
8701	2	15C	Drake Ave	Jughandle
9002	7	15C	180 Mooney Rd	Vacant Land
9002	3	15C	Mooney Rd, Rear	Water Tank
9002[2]	1.02	15C	102 Mooney Rd	Vacant Land
9103	16	15C	Timberline Dr	Pump House
9202	4.25	15C	2 Fox Chase Ln	Drainage
9202[2]	22	15C	Mountain Rd	Park
9202	3	15C	Route 80	Vacant Land
9302	4	15C	1450 Route 46, Ledge	Vacant Land
***9603**	**5**	**15C**	**1715 Route 46, Ledge**	**Municipal Bldg**
9701	1	15C	Shippenport Rd	Vacant Land
9701	2	15C	Shippenport Rd	Vacant Land
9701	5	15C	Shippenport Rd	Vacant Land
9702	21	15C	Orben Dr,Rear	Vacant Land
9707	8	15C	28 Harriet Way	Vacant Land
9707	10	15C	Roosevelt Way	Vacant Land
9707	11	15C	Roosevelt Way	
9707	14	15C	Roosevelt Way	Vacant Land
10012	1	15C	2Nd Ave, Landing	Park
10020	10	15C	130 Ledge-Landing Rd	Commercial Bldg.
10020	9	15C	124 Ledge-Landing Rd	Commercial Bldg.
10101	8	15C	229 Ledge-Landing Rd	Tax Lien Foreclosure
10101	13	15C	Ledge-Landing Rd,Rear	Tax Lien Foreclosure
10101	23	15C	165 Ledge-Landing Rd	Vacant Land
10101[2]	35	15C	130 Shippenport Rd	Vacant Land
10201	3	15C	7 Orben Dr	Vacant Land
10201[2]	4	15C	Orben Dr	Vacant Land
11204.04	34	15C	Williams Rd	Vacant Land
11704	7	15C	Williams Rd, Rear	Road Barrier
11705	24	15C	Jeffrey Rd, Rear	Vacant Land
11705[2]	9	15C	3 Jocelyn Rd	Park
12301	1	15C	200 Stierli Ct	Office Bldg
12301[2]	3	15C	170 Howard Blvd	Vacant Land
12401[2]	1	15C	Route 80	Vacant Land
12402[2]	2	15C	Route 80	Vacant Land
13201	1	15C	250 Howard Blvd	Vacant Land
13201	2	15C	240 Howard Blvd	Vacant Land
13201[2]	5	15C	Larson Ln Rear	Vacant Land
13202	1	15C	Howard Blvd	Vacant Land
1003	2	15D	4 Ridge Rd	Dormitory
2611	24	15D	102A S First Ave	Dormitory
***2802**	**20**	**15D**	**217 S Hillside Ave**	**Synagogue**

***2904**	**2**	**15D**	**185 S Hillside Ave**	**Church**
3005	30	15D	203 Eyland Ave	Church
3102	4	15D	1 Tonneson Dr	Parsonage
***3103**	**1**	**15D**	**113 S Hillside Ave**	**Church**
3604	3	15D	7 Hunter St	Rectory
3801	1	15D	Kenvil Ave, Rear	Church
3801	20	15D	91 Main St, Succ	Church&Cemetery
3801	19	15D	99 Main St, Succ	Church&Cemetery
3802	7	15D	98 Main St, Succ	Parsonage
4103	3	15D	319 Emmans Rd	Dormitory
***5103**	**1.01**	**15D**	**145 Main St, Succ**	**Church**
5701	8	15D	197 Emmans Rd	Rectory
***5701**	**9**	**15D**	**197 Emmans Rd**	**Church**
***6406**	**5.01**	**15D**	**233 Main St**	**Parsonage**
6501	2.262	15D	87 Drake Ln	Group Home
6501	2.154	15D	134 Drake Ln	Dormitory
6501	2.023	15D	216 Drake Ln	Dormitory
6501	2.151	15D	128 Drake Ln	Group Home
6501	2.143	15D	118 Drake Ln	Dormitory
6501	2.171	15D	170 Drake Ln	Group Home
6501	2.191	15D	184 Drake Ln	Dormitory
6501	2.202	15D	200 Drake Ln	Group Home
6501	2.254	15D	77 Drake Ln	Group Home
8001	1	15D	1 Kennedy Dr	Dormitory
8201	11	15D	152 Mountain Rd	Group Home
***8201**	**9**	**15D**	**156 Mountain Rd**	**Church**
8403	24	15D	34 Lazarus Dr	Parsonage
9302[2]	2	15D	1500 Route 46, Ledge	Church
10101[2]	30	15D	125 Ledge-Landing Rd	Administrative Bldg.
501	6	15F	59 Pleasant Hill Rd	Disabled Veteran
1001	6	15F	260 Eyland Ave	Disabled Veteran
1002	3	15F	248 Eyland Ave	Disabled Veteran
1102	20	15F	75 Toby Dr	Disabled Veteran
1302	24	15F	7 Lamington Dr	Disabled Veteran
1604	9	15F	10 Carol Dr	Disabled Veteran
1905	19	15F	17-19 Route 10	Common Element
2107	7	15F	3 Chesler Ter	Disabled Veteran
2301	4	15F	49 Kenvil Ave	Disabled Veteran
3906	3	15F	4 Corwin St	Disabled Veteran
4403	6	15F	39 Tamarack Dr	Disabled Veteran
4701	1	15F	140 Woods Edge Dr	Common Element
4803	23	15F	3 Mt View Rd	Disabled Veteran
5201	6	15F	124 Main St, Succ	Volunteer Fire Co
5203	37	15F	3 Cliff Ct	Disabled Veteran
5203	57	15F	119-121 Main St, Succ	Common Element
5901	15	15F	102 Emmans Rd	Disabled Veteran
6201	3	15F	Willow Walk Righter Rd	Common Element
6201	5.2	15F	Righter Rd	Common Element
6303	9	15F	15 Riggs Ave	Disabled Veteran

6401	6	15F	4 Nalron Dr	Disabled Veteran
6403	38	15F	3 Canal St,Ledge	Disabled Veteran
6501	2	15F	Main St	Common Element
6501	2.156	15F	138 Drake Ln	Disabled Veteran
7401	9	15F	19 Lookout Dr	Disabled Veteran
8201	15	15F	144 Mountain Rd	Disabled Veteran
9102	15	15F	20 Timberline Dr	Disabled Veteran
9701	7	15F	Orben Dr	Canal
10101[2]	41	15F	110 Shippenport Rd	Volunteer Fire Co
11313	8	15F	20 Salmon Rd	Disabled Veteran
11314[2]	37	15F	92 Mansel Dr	Disabled Veteran
11703	6	15F	510 Curtis Rd	Disabled Veteran
12201	1	15F	172-176-180 Howard Blvd	Common Element

*** 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

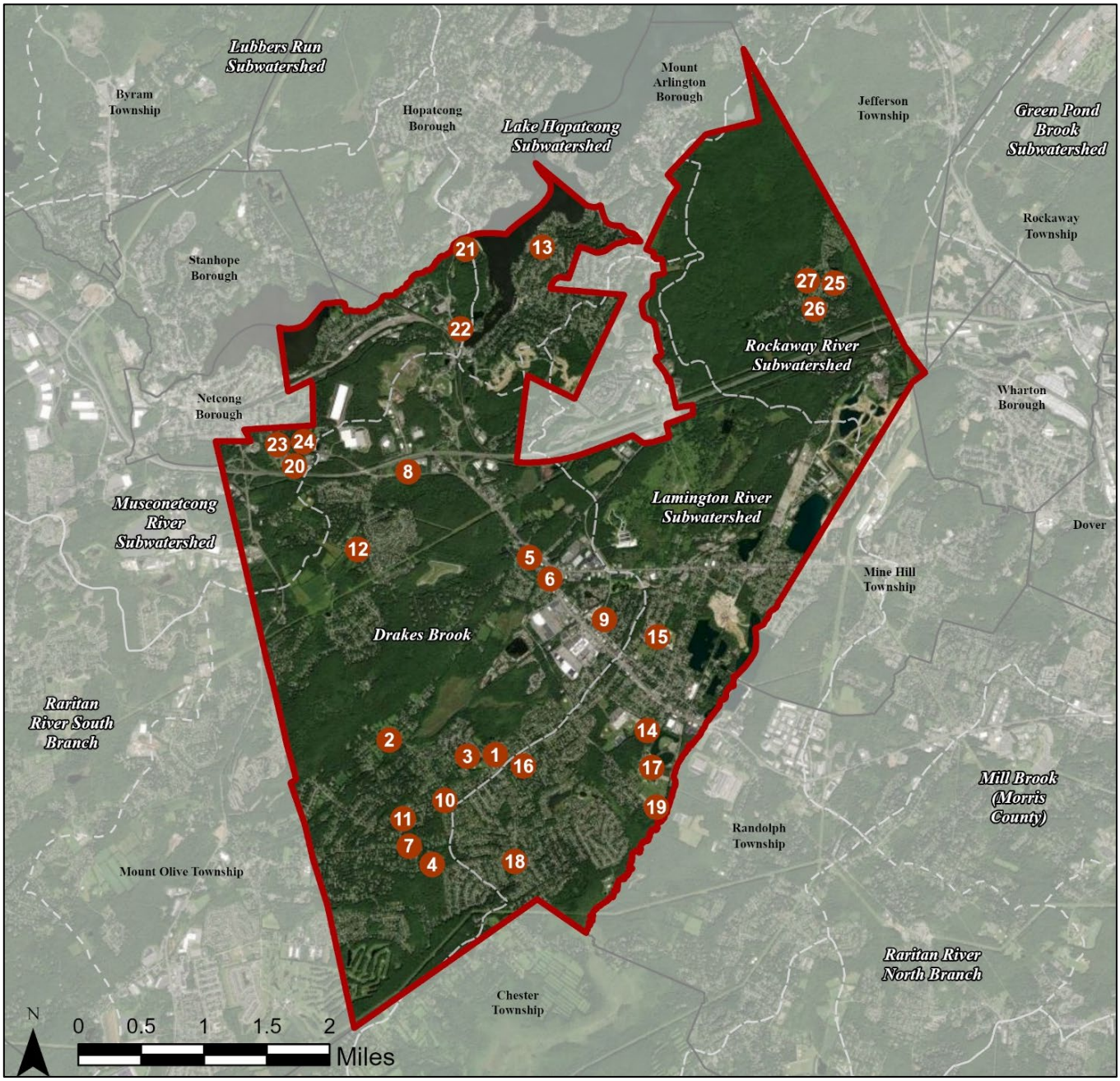


Figure 12: Sites with Green Infrastructure Opportunities in Roxbury Township

AMERICAN CHRISTIAN SCHOOL- SOUTH CAMPUS

RAP ID: 1

Subwatershed: Drakes Brook

HUC14 ID: 02030105010010

Site Area: 193,601 sq. ft.

Address: 126 South Hillside Avenue
Succasunna, NJ 07876

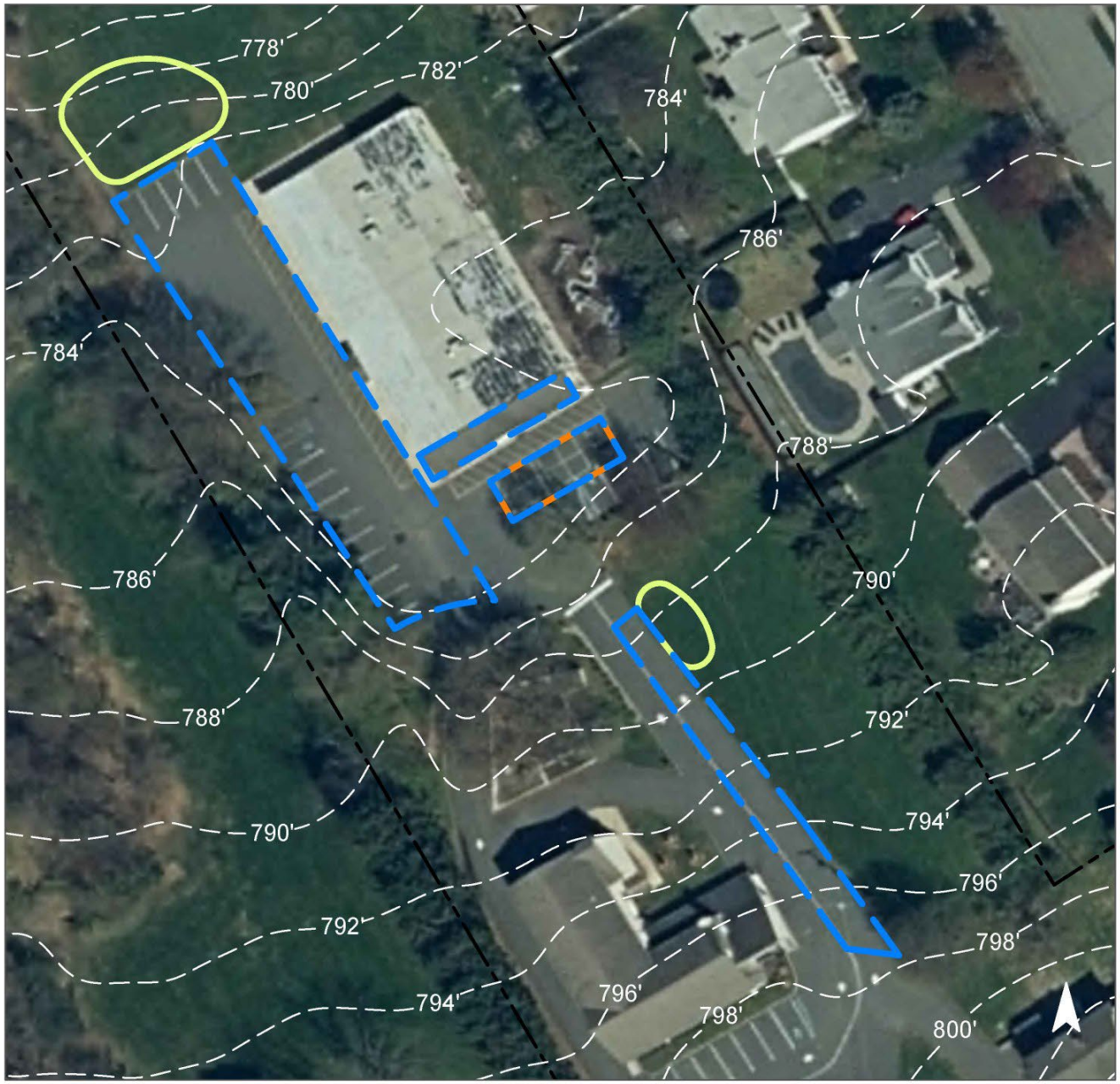
Block and Lot: Block 4601, Lot 13

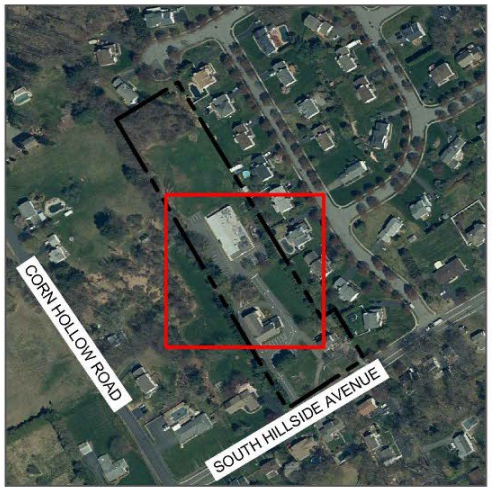
The pavement in the front of the building can be converted to porous pavement to capture and infiltrate stormwater runoff from the roof via already disconnected downspouts; the western downspout may require redirection towards the porous pavement. A rain garden with a curb cut can be installed in the grass area near the northwest corner of the building and a rain garden with a trench drain can be installed south of the building to capture, treat, and infiltrate stormwater runoff from the pavement. 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	60,281	2.9	30.4	276.8	0.047	1.88

Recommended Green Infrastructure Practices	Drainage Area (sq. ft.)	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	10,960	0.325	48	22,860	0.86	2,740	$27,400
Pervious pavement	1,615	0.048	8	3,370	0.13	900	$22,500

GREEN INFRASTRUCTURE RECOMMENDATIONS





American Christian School - South Campus

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

0 30' 60'

HOLY WISDOM BYZANTINE CATHOLIC CHURCH

RAP ID: 2

Subwatershed: Drakes Brook

HUC14 ID: 02030105010010

Site Area: 393,578 sq. ft.

Address: 197 Emmans Roac
Roxbury, NJ 0783

Block and Lot: Block 5701, Lots 8 9

Parking spaces in the lot next to the south t building can be converted to porous pavement to capture and infiltrate stormwater runoff from the asphalt and rooftop via already disconnected downspouts. Rain gardens can be installed in multiple grass areas around the property to capture, treat, and infiltrate stormwater runoff from the roofs and pavement. Trench drains and downspout disconnection and redirection will be required for some of these gardens. 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"
7	27,418	1.3	13.8	125.9	0.021	0.85

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	4,340	0.129	19	9,050	0.34	1,090	$10,900
Pervious pavement	3,070	0.091	13	6,400	0.24	1,790	$44,750

GREEN INFRASTRUCTURE RECOMMENDATIONS

Holy Wisdom Byzantine Catholic Church

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

0 30' 60'

JEFFERSON ELEMENTARY SCHOOL

RAP ID: 3

Subwatershed: Drakes Brook

Site Area: 628,219 sq. ft.

Address: 35 Corn Hollow Road
Succasunna, NJ 07876

Block and Lot: Block 4501, Lot 10

Parking spaces can be replaced with pervious pavement to capture and infiltrate stormwater. Downspout planter boxes can be installed on multiple locations north of the building. A rain garden can be installed in the parking island to capture, treat, and infiltrate additional stomwater runoff. Downspout planter boxes can be installed near the entrances to capture rooftop runoff and provide visual interest. 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"
31	192,288	9.3	97.1	882.9	0.150	5.27

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	0.034	6	2,480	0.09	740	$3,700
Pervious pavement	0.462	77	33,940	1.28	178	$4,450
Planter boxes	n/a	5	n/a	n/a	8 (boxes)	$8,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

Jefferson Elementary School

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

0 50' 100'

KIWANIS PARK

RAP ID: 4

Subwatershed: Drakes Brook

Site Area: 4,578,278 sq. ft.

Address: 9 Makin Lane
Succasunna, NJ 07876

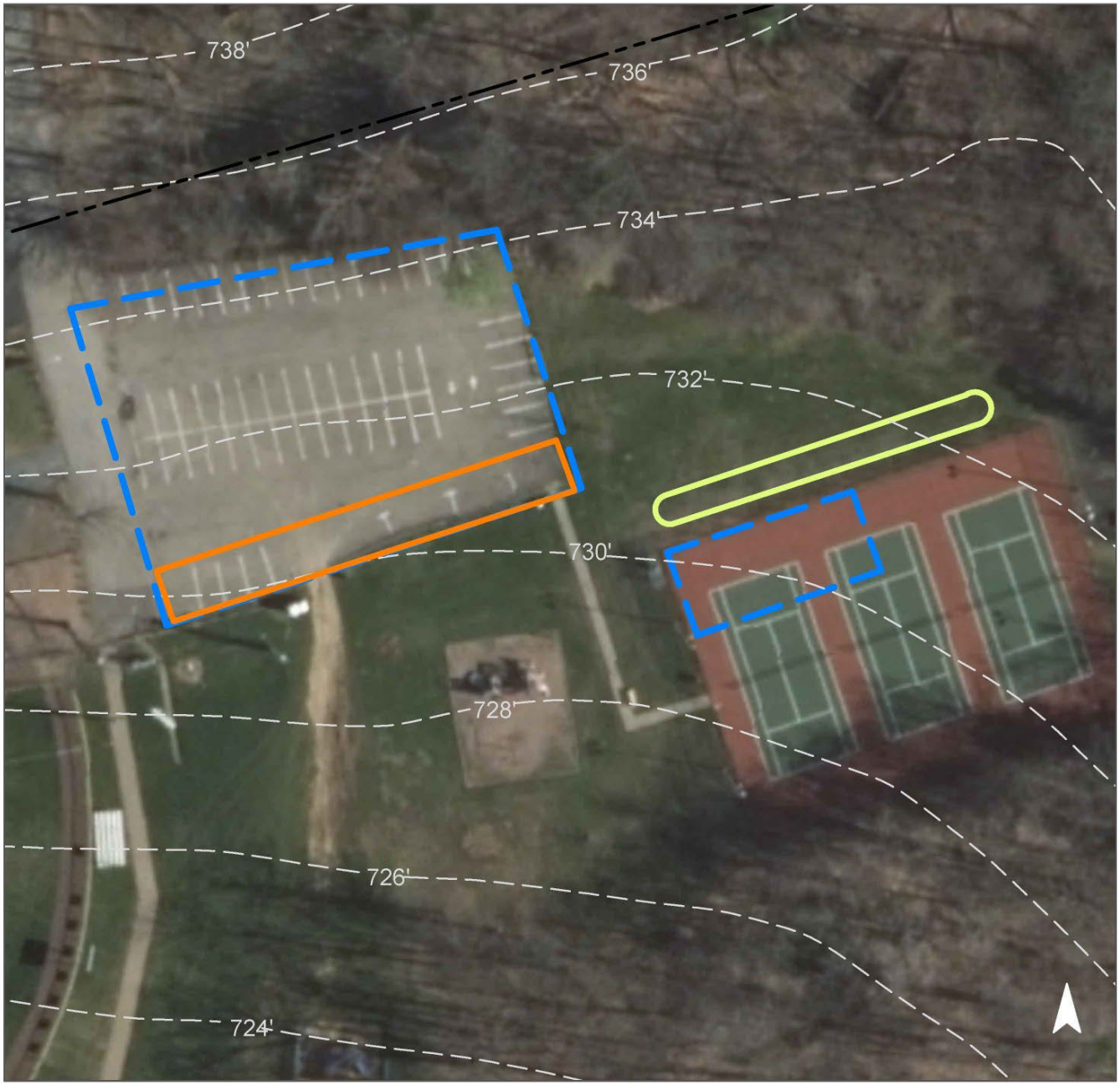
Block and Lot: Block 901, Lot 19

Parking spaces can be replaced with pervious pavement on the southernmost parking strip in the lot to capture and infiltrate stormwater. A rain garden can be installed near the tennis court to capture stormwater. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
2	88,107	4.2	44.5	404.5	0.069	2.42

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	0.066	11	4,820	0.18	1,630	$8,150
Pervious pavement	0.505	85	37,040	1.39	3,460	$86,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



Kiwanis Park

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

0 30' 60'

LEDGEWOOD BAPTIST CHURCH

RAP ID: 5

Subwatershed: Drakes Brook

HUC14 ID: 02030105010010

Site Area: 100,592 sq. ft.

Address: 233 Main Street
Ledgewood, NJ 07852

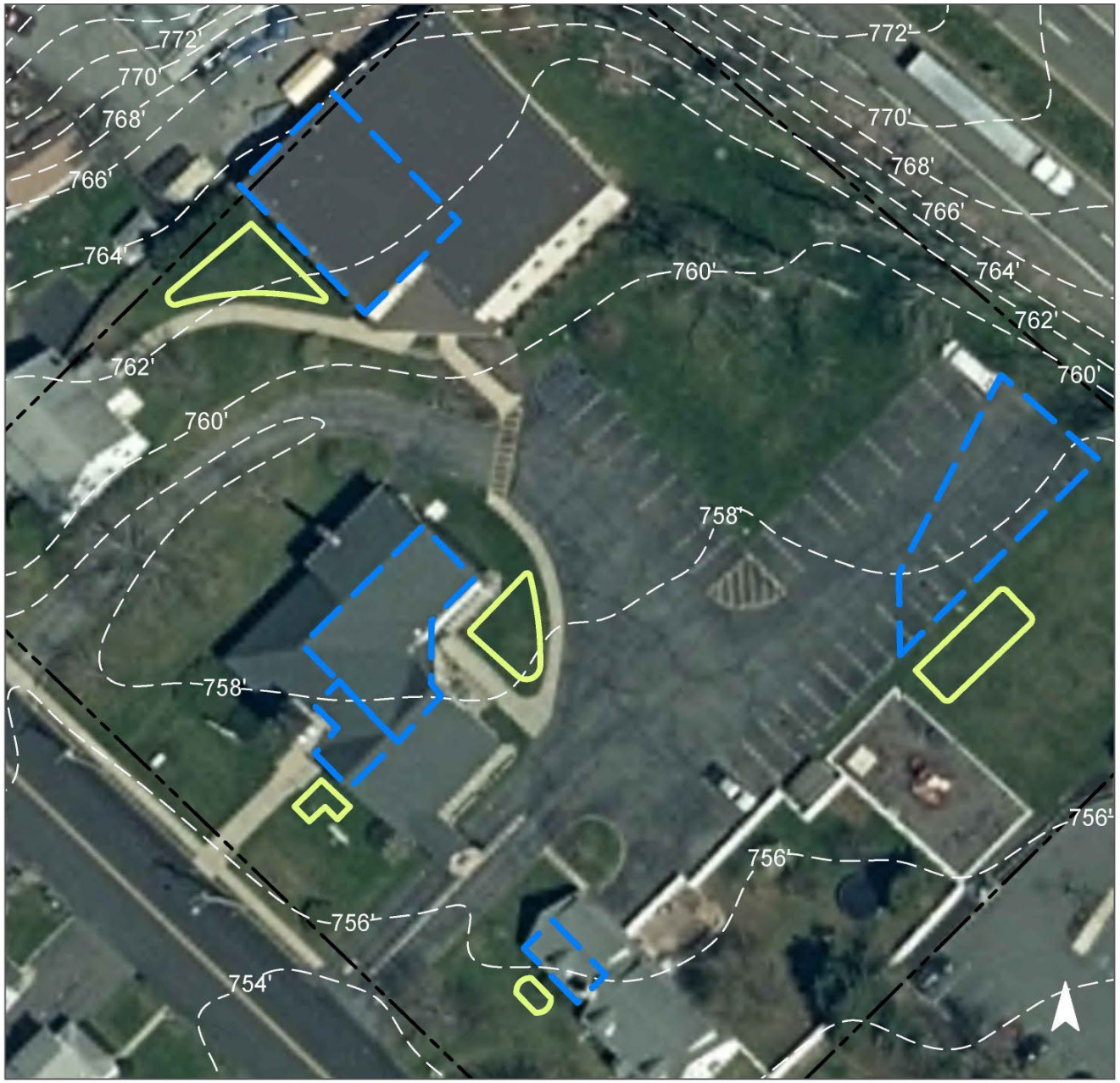
Block and Lot: Block 6406, Lot 5.01

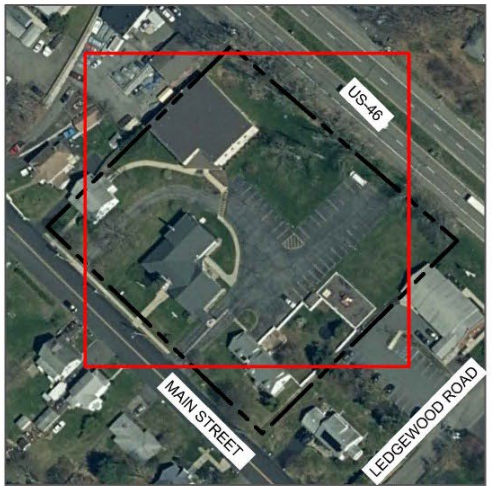
Four rain gardens that require downspout disconnection and redirection can be installed in the grass areas around the property building to capture, treat, and infiltrate stormwater runoff from the roofs. One rain garden can be installed in the grass area on the east side of the site to capture, treat, and infiltrate stormwater runoff from the parking lot. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 50"
57	57,354	2.8	29.0	263.3	0.045	1.79

Recommended Green Infrastructure Practices	Drainage Area (sq. ft.)	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	7,585	0.225	32	15,820	0.59	1,895	$18,950

GREEN INFRASTRUCTURE RECOMMENDATIONS





Ledgewood Baptist Church

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

0 25' 50'

LEDGEWOOD HISTORIC PARK

RAP ID: 6

Subwatershed: Drakes Brook

HUC14 ID: 02030105010010

Site Area: 72,124 sq. ft.

Address: 211-209 East Main Street
Ledgewood, NJ 07852

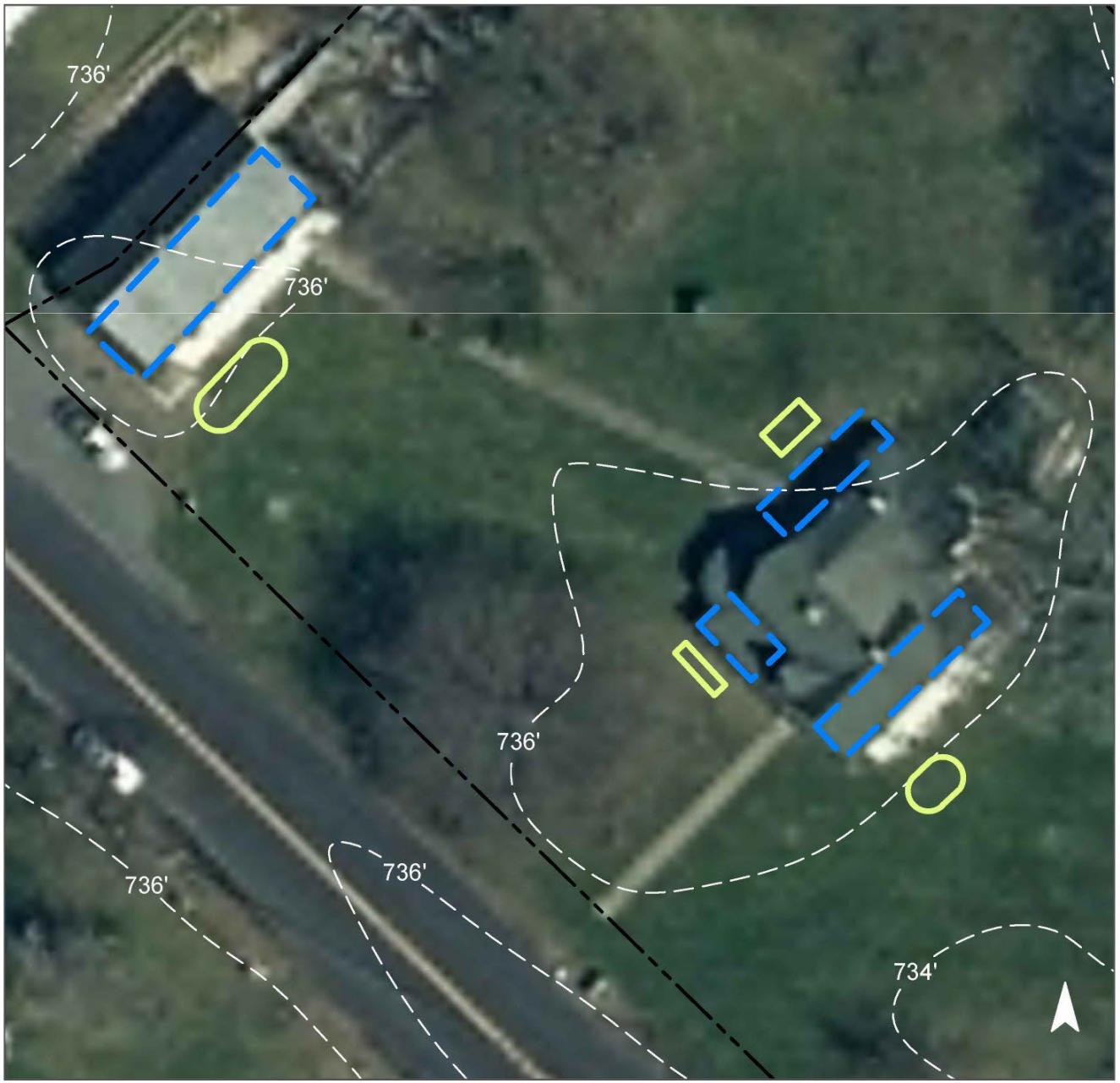
Block and Lot: Block 6408, Lot 2

A rain garden can be installed in the grass area next to the west building to capture, treat, and infiltrate stormwater runoff from the roof. Three rain gardens, one of which requires downspout disconnection, can be installed next to the east building to capture, treat, and infiltrate stormwater runoff from the roof. 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"
13	9,086	0.4	4.6	41.7	0.007	0.28

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	1,370	0.041	6	2,860	0.11	345	$3,450

GREEN INFRASTRUCTURE RECOMMENDATIONS



Ledgewood Historic Park

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

0 15' 30'

ROXBURY COMMUNITY GARDEN

RAP ID: 7

Subwatershed: Drakes Brook

Site Area: 371,852 sq. ft.

Address: 281 Eyland Avenue
Succasunna, NJ 07876

Block and Lot: Block 2802, Lot 5

A cistern can be installed to capture stormwater from the roof of the shed in front of the garden, and the water can be reused for watering plants or other non-potable purposes. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
4	16,186	0.8	8.2	74.3	0.013	0.44

Recommended Green Infrastructure Practices	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Rainwater harvesting	0.007	1	200	0.01	200 (gal)	$400

GREEN INFRASTRUCTURE RECOMMENDATIONS

Roxbury Community Garden

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

0 10' 20'

ROXBURY TOWNSHIP COURT CLERK & POLICE DEPARTMENT

RAP ID: 8

Subwatershed: Drakes Brook

HUC14 ID: 02030105010010

Site Area: 227,319 sq. ft.

Address: 1715 US-46
Ledgewood, NJ 07852

Block and Lot: Block 9603, Lot 5

Three rain gardens can be installed in the grass areas on the east and west sides at the front of the building to capture, treat, and infiltrate stormwater runoff from the pavement. The gardens will require curb cuts and trench drains. Parking spaces on the west side of the building and behind the building can be converted to porous 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 50"
55	125,744	6.1	63.5	577.3	0.098	3.92

Recommended Green Infrastructure Practices	Drainage Area (sq. ft.)	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	10,635	0.315	46	22,190	0.83	2,660	$26,600
Pervious pavement	36,420	1.078	160	75,970	2.85	6,505	$162,625

GREEN INFRASTRUCTURE RECOMMENDATIONS

Roxbury Township Court Clerk and Police Department

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

0 50' 100'

SAINT THERESE CHURCH

RAP ID: 9

Subwatershed: Drakes Brook

Site Area: 727,688 sq. ft.

Address: 151 Main Street
Succasunna, NJ 07876

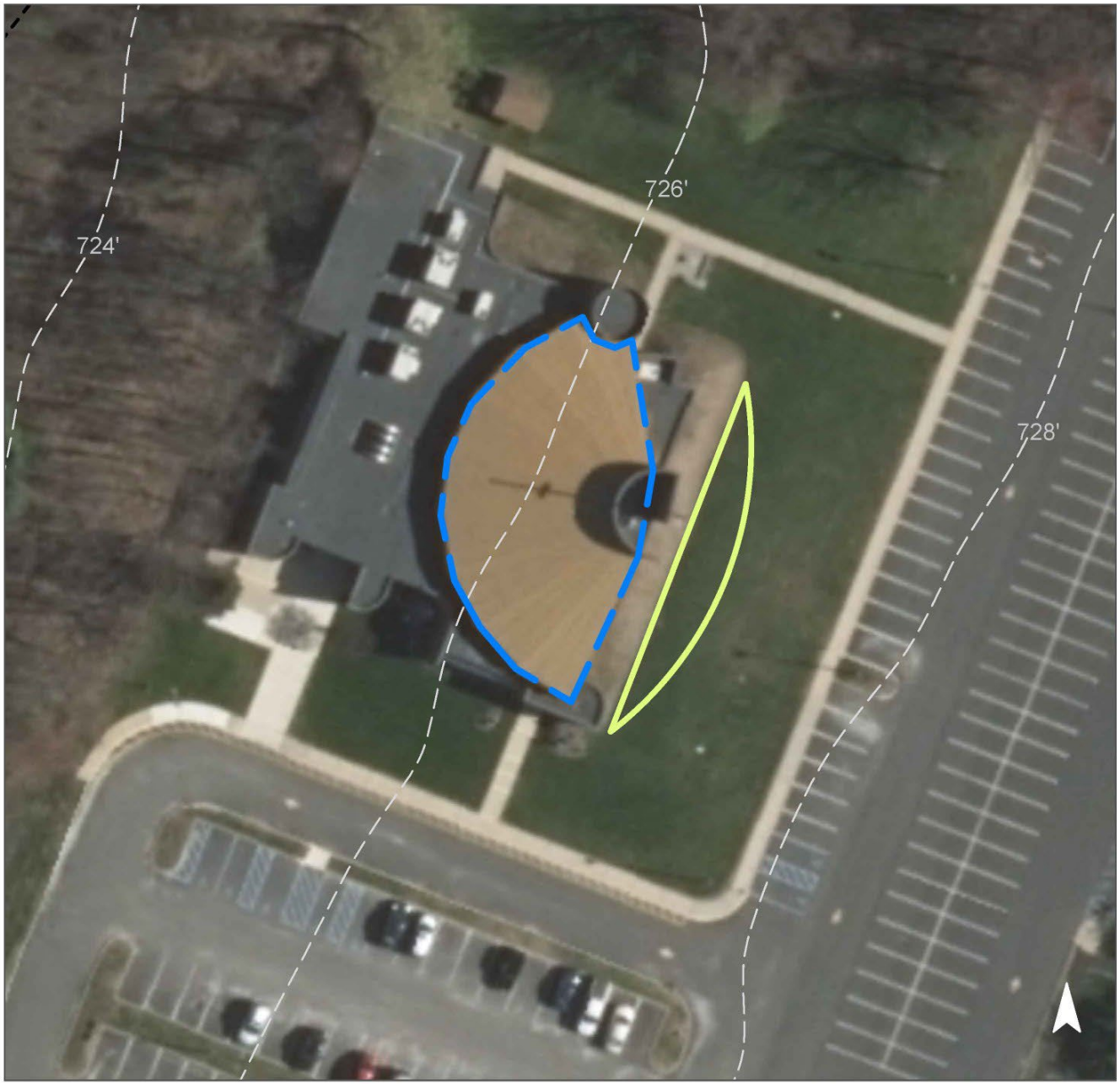
Block and Lot: Block 5103, Lot 1

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

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
36	264,110	12.7	133.4	1,212.6	0.206	7.24

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	0.156	26	11,410	0.43	1,450	$7,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



Saint Therese Church

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

0 25' 50'

ST. DUNSTAN'S EPISCOPAL CHURCH

RAP ID: 10

Subwatershed: Drakes Brook

HUC14 ID: 02030105010010

Site Area: 214,839 sq. ft.

Address: 179 South Hillside Avenue
Succasunna, NJ 07876

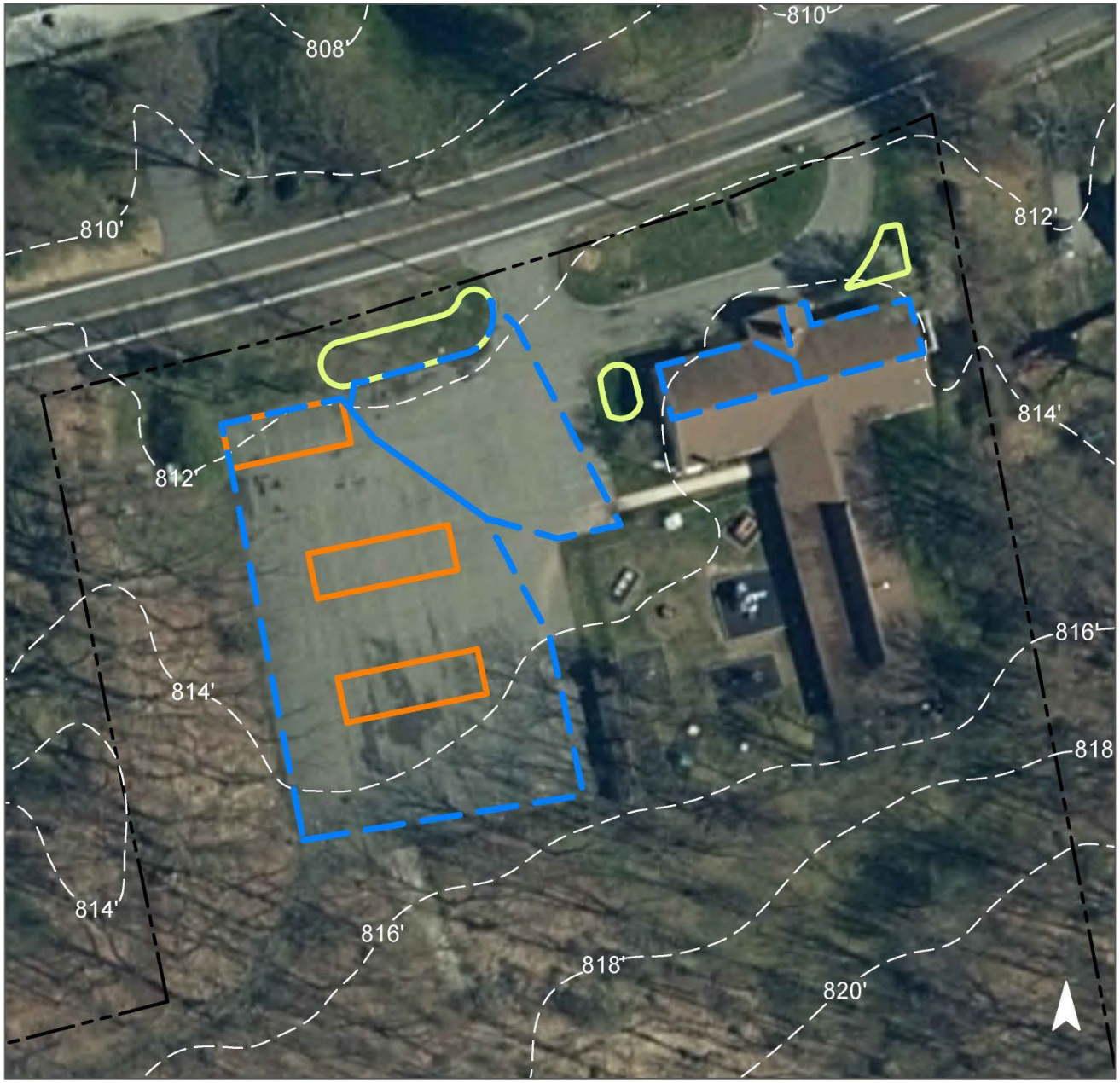
Block and Lot: Block 2904, Lot 2

Parking spaces in the lot can be converted to porous pavement using trench drains to redirect, capture and infiltrate stormwater runoff from the pavement. A rain garden with a curb cut can be installed in the grass area near the entrance of the parking lot to capture, treat, and infiltrate stormwater runoff from the pavement. Two rain gardens can be installed near the building entrance to capture, treat, and infiltrate stormwater runoff from the roof via already disconnected downspouts that will require redirection. 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"
19	41,200	2.0	20.8	189.2	0.032	1.28

Recommended Green Infrastructure Practices	Drainage Area (sq. ft.)	Recharge Potential (Mgal/yr)	TSS Removal Potential (lbs/yr)	Maximum Volume Reduction Potential (gal/storm)	Peak Discharge Reduction Potential (cu. ft./second)	Estimated Size (sq. ft.)	Estimated Cost
Bioretention system	7,870	0.233	34	16,420	0.62	1,970	$19,700
Pervious pavement	15,945	0.472	70	33,260	1.25	2,885	$72,125

GREEN INFRASTRUCTURE RECOMMENDATIONS



St. Dunstan's Episcopal Church

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

0 30' 60'

TEMPLE SHALOM

RAP ID: 11

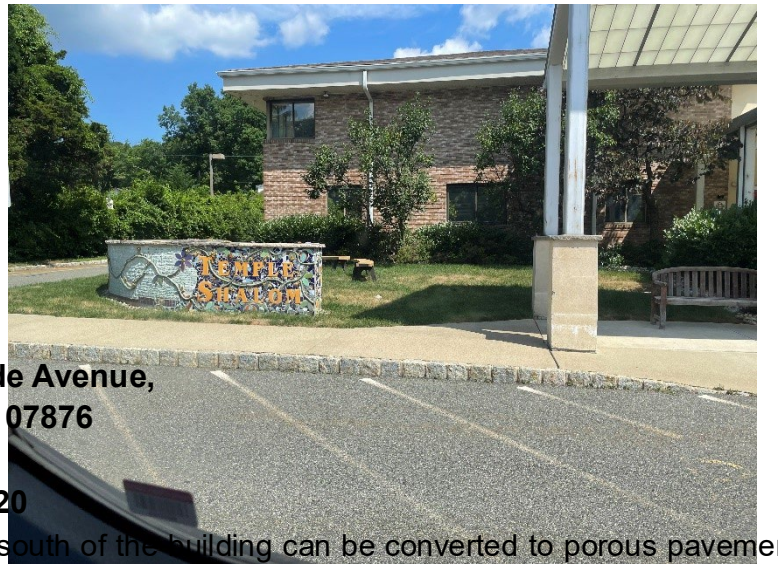
Subwatershed: Drakes Brook

HUC14 ID: 02030105010020

Site Area: 178,553 sq. ft.

Address: 215 South Hillside Avenue,
Succasunna, NJ 07876

Block and Lot: Block 2802, Lot 20



Parking spaces in the lot to the north and south of the building can be converted to porous pavement to capture and infiltrate stormwater runoff from the roof and asphalt; this requires downspout disconnection and trench drains for redirection. A rain garden requiring downspout disconnection can be installed in the grass area in the rear of the building to capture, treat, and infiltrate stormwater runoff from the roof. 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"
58	103,414	5.0	52.2	474.8	0.081	3.22

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	995	0.029	4	2,070	0.08	250	$2,500
Pervious pavement	25,725	0.762	112	53,650	2.02	4,620	$115,500

GREEN INFRASTRUCTURE RECOMMENDATIONS

Temple Shalom

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

0 50' 100'

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

RAP ID: 12

Subwatershed: Drakes Brook

HUC14 ID: 02030105010010

Site Area: 251,582 sq. ft.

Address: 156 Mountain Road
Ledgewood, NJ 07852

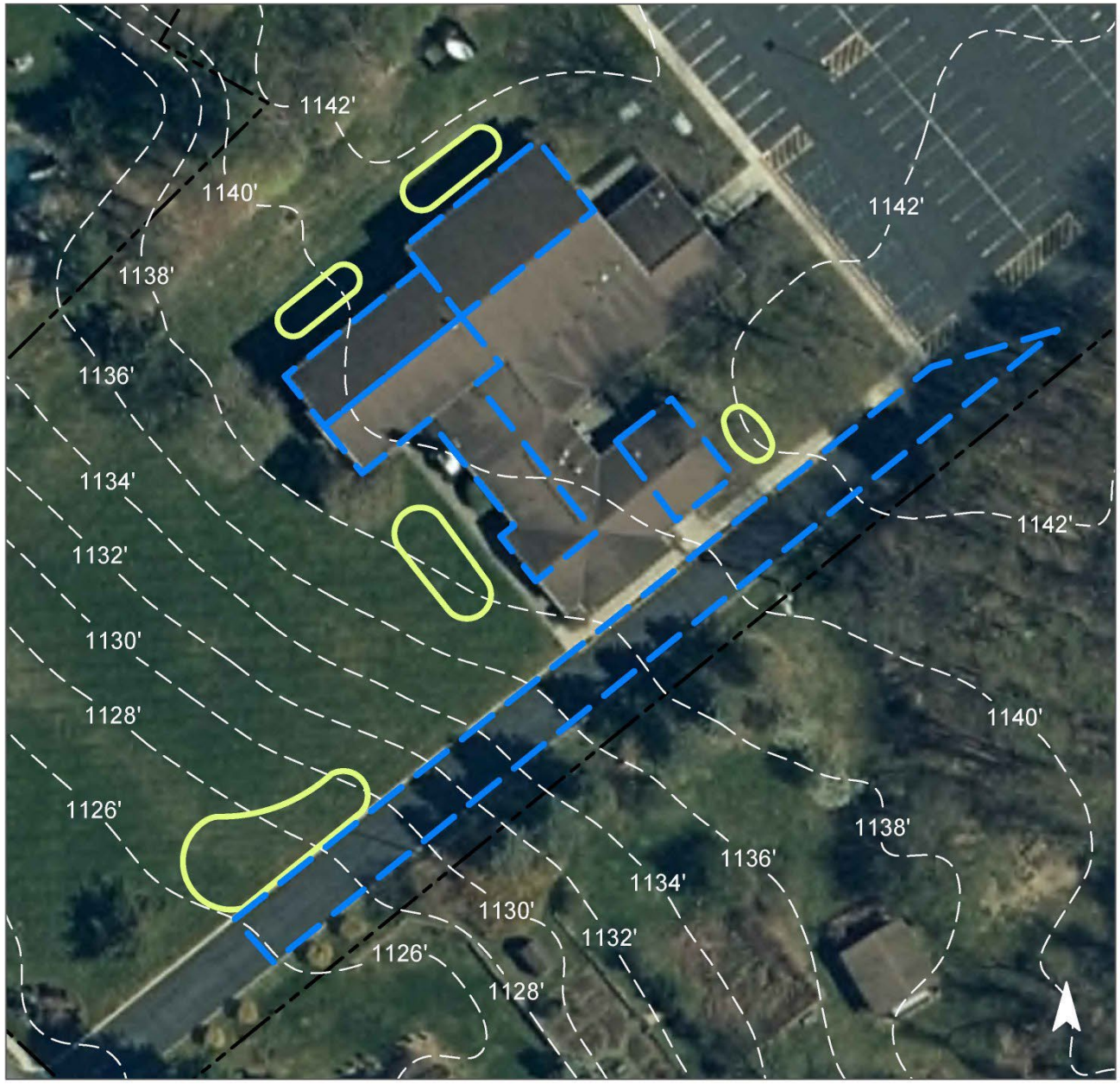
Block and Lot: Block 8201, Lot 9

Several rain gardens that require downspout disconnection and redirection can be installed in the grass areas around the building to capture, treat, and infiltrate stormwater runoff from the roof. One rain garden that requires a curb cut and trench drain can be installed in the grass area southwest of the building to capture, treat, and infiltrate stormwater runoff from the 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"
39	98,786	4.8	49.9	453.6	0.077	3.08

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	16,651	0.493	72	34,730	1.31	4,170	$41,700

GREEN INFRASTRUCTURE RECOMMENDATIONS



The Church of Jesus Christ of Latter-Day Saints

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

0 30' 60'

GREEN INFRASTRUCTURE RECOMMENDATIONS

Nixon Elementary School

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

0 30' 60'

EISENHOWER MIDDLE SCHOOL & ROXBURY HIGH SCHOOL

RAP ID: 14

Subwatershed: Lamington River

Site Area: 3,538,538 sq. ft.

Address: 47 Eyland Avenue
Succasunna, NJ 07876

Block and Lot: Block 1801, Lots 2, 3, 4

Three rain gardens can be installed to capture, treat, and infiltrate runoff from rooftops and paved areas. Parking spaces can be replaced with pervious pavement to capture and infiltrate stormwater runoff from the parking lot areas. A cistern can be installed to capture roof runoff from a maintenance shed. 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"
32	1,137,347	54.8	574.4	5,222.0	0.886	31.19

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 systems	0.627	105	46,020	1.73	6,020	$30,100
Pervious pavement	3.845	644	282,110	10.60	26,350	$658,750
Rainwater harvesting	0.048	8	1,450	0.06	1,450 (gal)	$2,900

GREEN INFRASTRUCTURE RECOMMENDATIONS

Eisenhower Middle School & Roxbury High School

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

0 150' 300'

FRANKLIN ELEMENTARY SCHOOL & LINCOLN ROOSEVELT SCHOOL

RAP ID: 15

Subwatershed: Lamington River

Site Area: 1,431,171 sq. ft.

Address: 8 Meeker Street
Succasunna, NJ 07876

Block and Lot: Block 3901, Lot 2

Rain gardens can be installed at the entrances of both buildings near downspouts to capture, treat, and infiltrate rooftop runoff. Another rain garden can be installed in the turfgrass area near a catch basin to capture water from the parking lot. A section of parking spaces can be converted to porous pavement to capture and infiltrate 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"
29	415,275	20.0	209.7	1,906.7	0.324	11.39

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	0.354	59	26,010	0.98	5,405	$27,025
Pervious pavement	0.475	79	34,840	1.31	3,260	$81,500

GREEN INFRASTRUCTURE RECOMMENDATIONS

Franklin Elementary School & Lincoln Roosevelt School

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

0 100' 200'

HILLSIDE LUTHERAN BRETHREN CHURCH

RAP ID: 16

Subwatershed: Lamington River

Site Area: 253,933 sq. ft.

Address: 113 South Hillside Avenue
Succasunna, NJ 07876

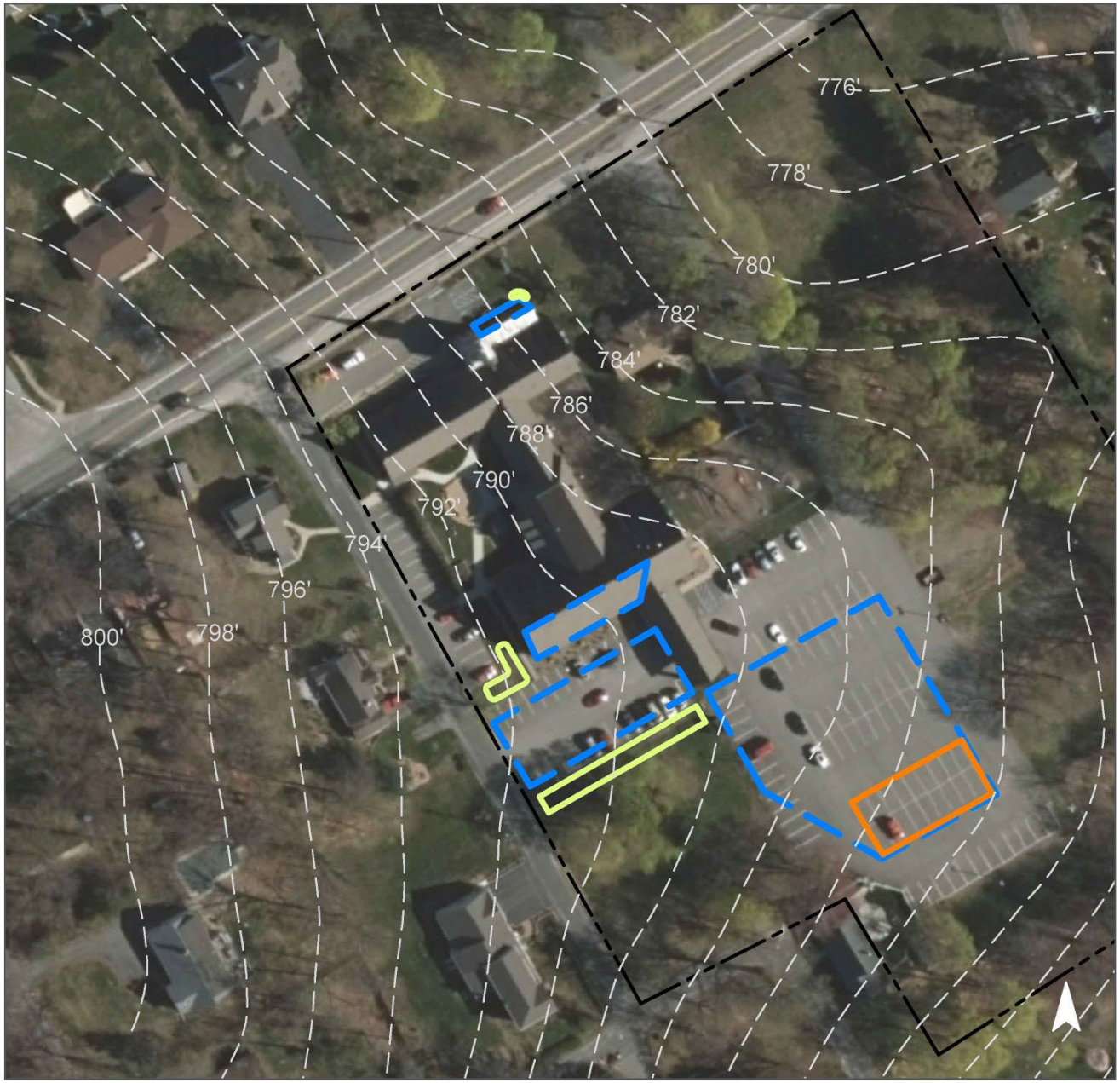
Block and Lot: Block 3103, Lot 1

Rain gardens can be installed north and west of the building near downspouts to capture, treat, and infiltrate rooftop runoff. Another rain garden can be installed near the parking lot to capture runoff from the road. Parking spaces can be replaced with pervious pavement to capture and infiltrate stormwater runoff from the parking lot. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
46	117,092	5.6	59.1	537.6	0.091	3.21

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	0.202	34	14,830	0.56	1,945	$9,725
Pervious pavement	0.484	81	35,540	1.34	3,320	$83,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Hillside Lutheran Brethren Church

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

0 50' 100'

HORSESHOE LAKE RECREATION COMPLEX

RAP ID: 17

Subwatershed: Lamington River

Site Area: 3,768,003 sq. ft.

Address: 72 Eyland Avenue
Succasunna, NJ 07876

Block and Lot: Block 1802, Lot 7-8

There are four downspouts along the north side of the building where downspout planter boxes can be installed. A rain garden can be installed at end of the parking lot that will capture stormwater from the parking lot. Another rain garden can be installed on the north side of the building near downspouts. Pervious pavement can be installed to capture and infiltrate runoff from the southern 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"
17	647,900	31.2	327.2	2,974.7	0.505	17.77

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
Bioretention systems	0.106	18	7,780	0.29	581	$2,905
Pervious pavement	0.190	32	13,920	0.52	1,300	$32,500
Planter boxes	n/a	3	n/a	n/a	4 (boxes)	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

Horseshoe Lake Recreation Complex

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

0 50' 100'

KENNEDY ELEMENTARY SCHOOL

RAP ID: 18

Subwatershed: Lamington River

Site Area: 587,551 sq. ft.

Address: 20 Pleasant Hill Road
Succasunna, NJ 07876

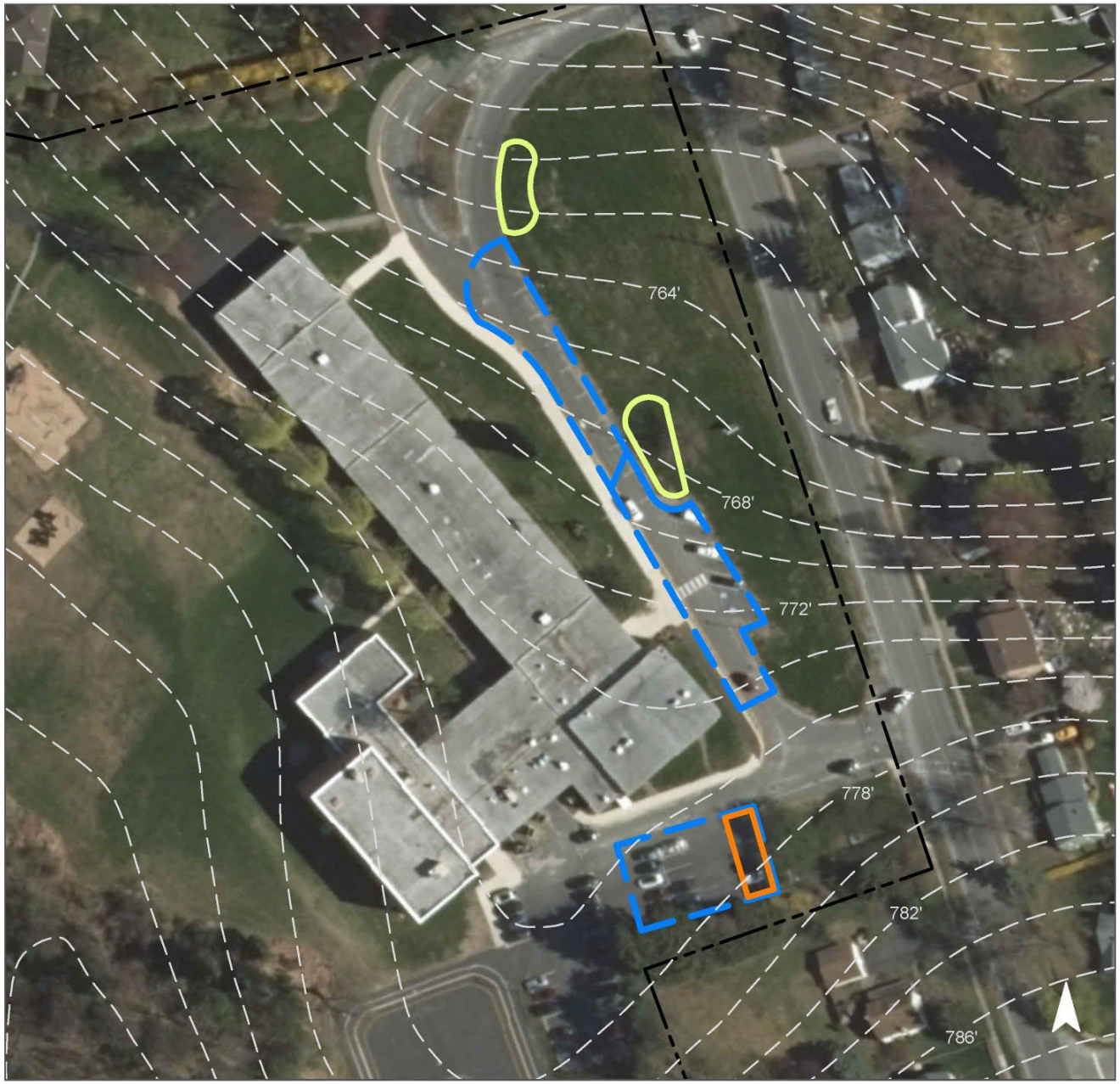
Block and Lot: Block 1201, Lot 19

Two rains gardens can be installed in the turfgrass in front of the building to capture, treat, and infiltrate roadway runoff. Another rain garden can be installed south of the building to capture runoff from the basketball court. Pervious pavement can be installed in the parking lot 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"
26	150,355	7.2	75.9	690.3	0.117	4.12

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	0.271	45	19,920	0.75	2,605	$13,025
Pervious pavement	0.141	24	10,320	0.39	970	$24,250

GREEN INFRASTRUCTURE RECOMMENDATIONS



Kennedy Elementary School

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

0 50' 100'

ROXBURY DAY CARE CENTER

RAP ID: 19

Subwatershed: Lamington River

HUC14 ID: 02030105050020

Site Area: 3,105,783 sq. ft.

Address: 25 Righter Road,
Succasunna, NJ 07876

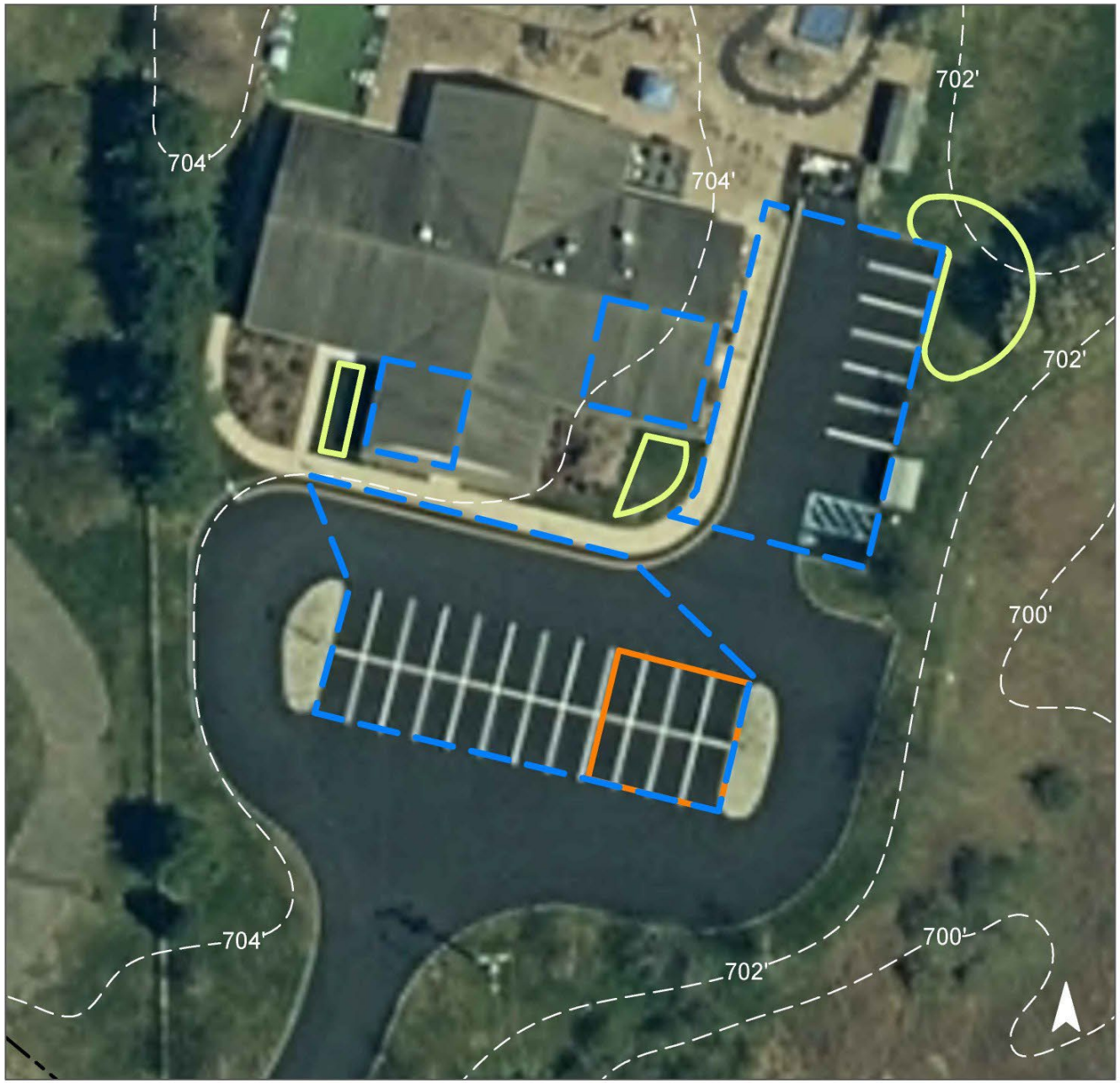
Block and Lot: Block 1802, Lot 8

Parking spaces in the lot to the south of the building can be converted to porous pavement to capture and infiltrate stormwater runoff from the asphalt using trench drains for redirection. Two rain gardens requiring downspout disconnection can be installed in the grass areas near the entrance of the building to capture, treat, and infiltrate stormwater runoff from the roof. A rain garden with a curb cut can be installed in the grass area east of the building to capture, treat, and infiltrate stormwater runoff from the parking lot. A preliminary soil assessment suggests that the soils have suitable drainage characteristics for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 50"
14	443,013	21.4	223.7	2,034.0	0.345	13.81

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	5,565	0.165	25	11,610	0.44	1,395	$13,950
Pervious pavement	6,230	0.184	27	12,990	0.49	1,220	$30,500

GREEN INFRASTRUCTURE RECOMMENDATIONS



Roxbury Day Care Center

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

0 20' 40'

GRACE CHURCH ON THE MOUNT

RAP ID: 20

Subwatershed: Musconetcong River

Site Area: 388,820 sq. ft.

Address: 1500 US-46
Netcong, NJ 07857

Block and Lot: Block 9302, Lot 2

A rain garden can be installed near a connected downspout and a catch basin to capture, treat, and infiltrate rooftop runoff. Downspout planter boxes can be constructed along the building to allow roof runoff to be reused. A section of parking spaces can be converted to porous pavement to capture and infiltrate 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"
39	149,927	7.2	75.7	688.4	0.117	4.11

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	0.026	4	1,910	0.07	250	$1,250
Pervious pavement	0.190	32	13,920	0.52	1,300	$32,500
Planter boxes	n/a	3	n/a	n/a	4 (boxes)	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

Grace Church on the Mount

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

0 30' 60'

LAKE HOPATCONG HISTORICAL MUSEUM AND STATE PARK

RAP ID: 21

Subwatershed: Musconetcong River

Site Area: 2,240,313 sq. ft.

Address: State Park Landing, NJ 07850

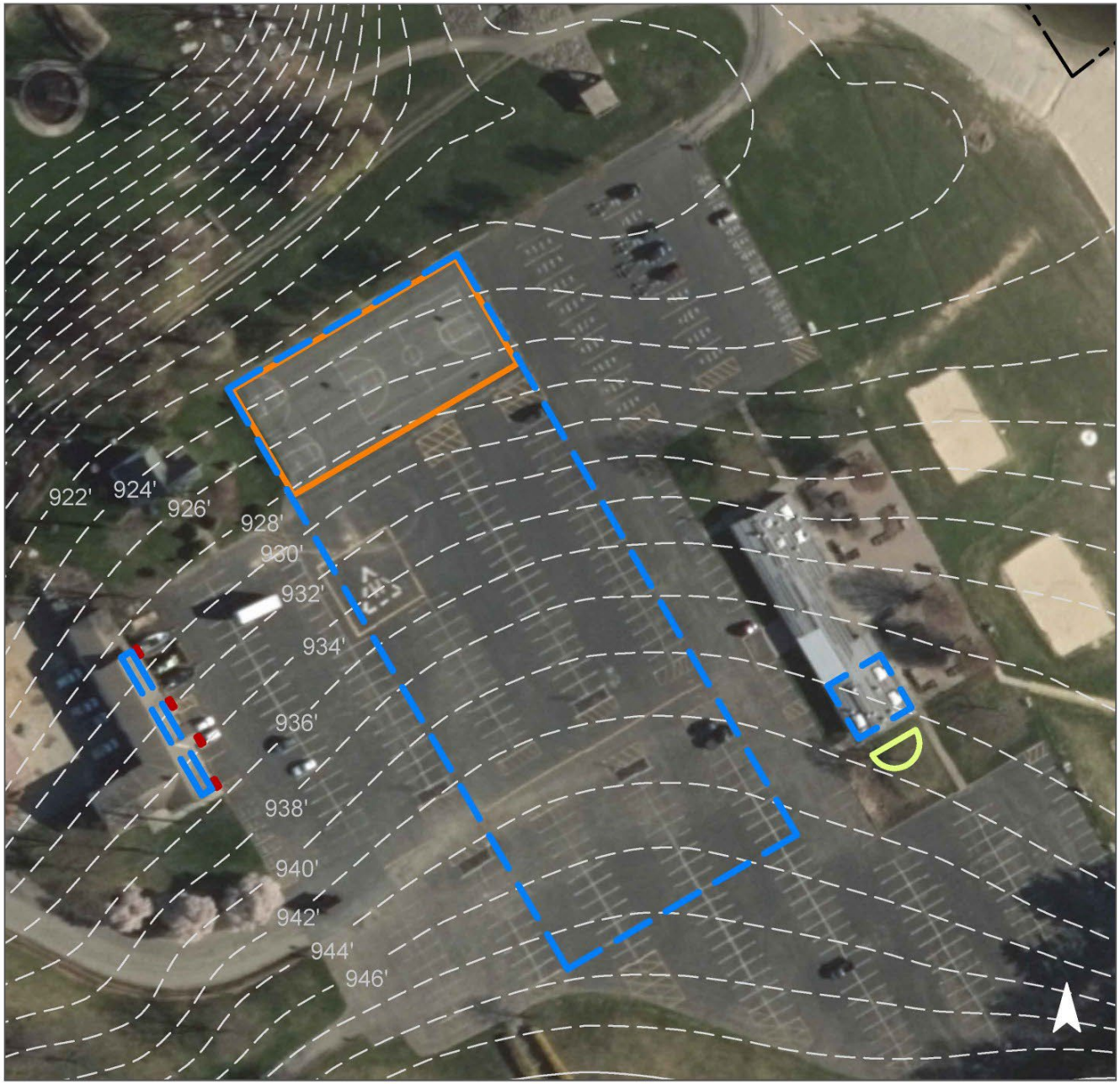
Block and Lot: Block 10802, Lot 1

The basketball court area in the parking lot can be converted to porous pavement to capture and infiltrate runoff from the parking lot. A rain garden can be installed near the bathrooms to capture, treat, and infiltrate runoff from the rooftop. Downspout planter boxes can be installed near the main building at the ends of downspouts to filter rooftop runoff. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
19	415,348	20.0	209.8	1,907.0	0.324	11.39

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	0.042	7	3,060	0.11	400	$2,000
Pervious pavement	1.984	332	145,610	5.47	13,600	$340,000
Planter boxes	n/a	3	n/a	n/a	4 (boxes)	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Lake Hopatcong Historical Museum and State Park

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

0 50' 100'

LANDING POST OFFICE

RAP ID: 22

Subwatershed: Musconetcong River

Site Area: 19,049 sq. ft.

Address: 130 Lakeside Boulevard
Landing, NJ 07850

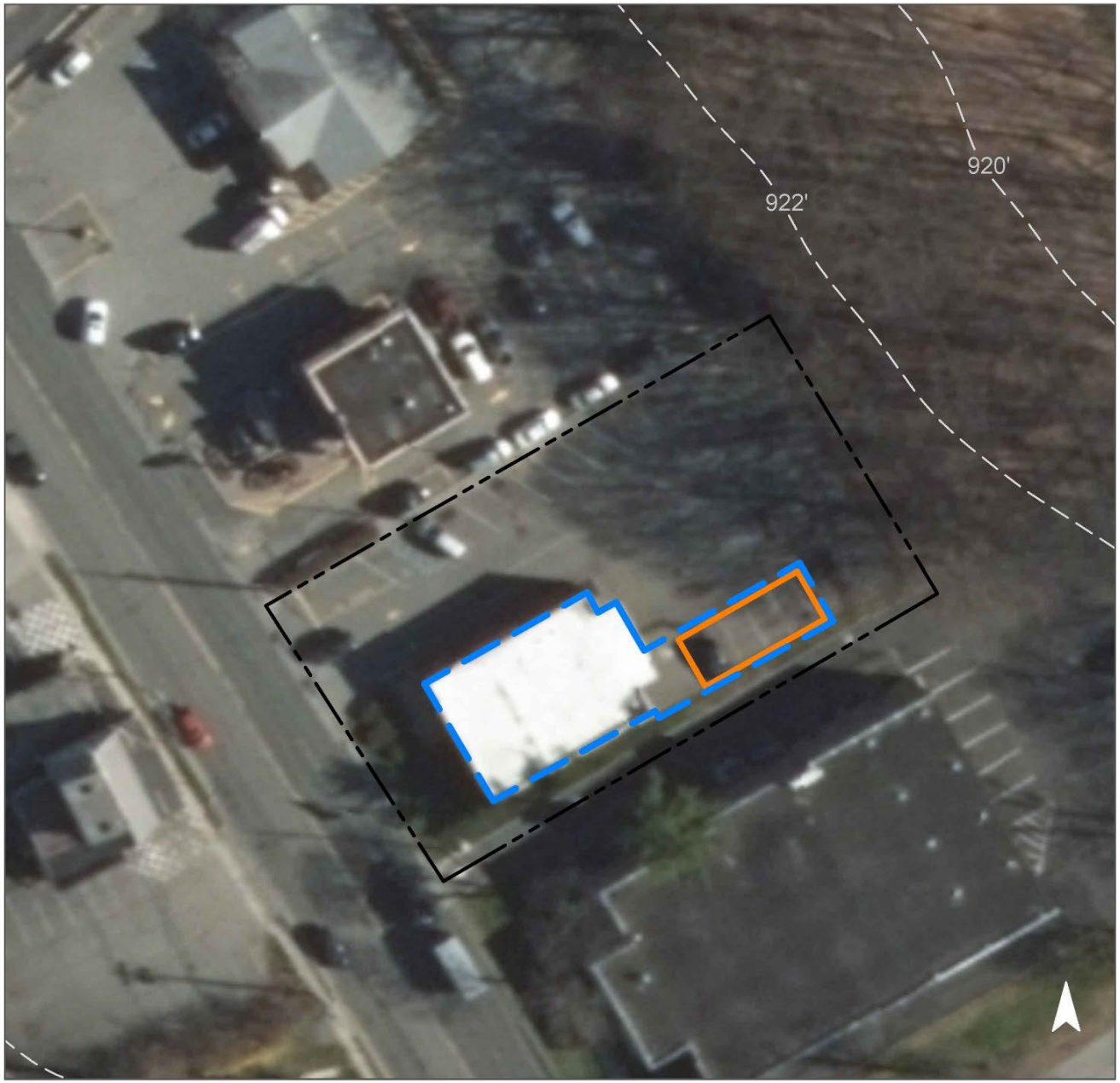
Block and Lot: Block 11001, Lot 6

Pervious pavement can be installed near a downspout to capture and infiltrate stormwater runoff from the rooftop and 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"
82	15,714	0.8	7.9	72.2	0.012	0.43

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	0.111	19	8,160	0.31	800	$20,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Landing Post Office

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

0 25' 50'

SAINT HUBERT'S ANIMAL WELFARE CENTER NOAH'S ARK

RAP ID: 23

Subwatershed: Musconetcong River

Site Area: 31,535 sq. ft.

Address: 1915 US-46
Ledgewood, NJ 07852

Block and Lot: Block 9402, Lot 11

A rain garden can be installed south of the building near a disconnected downspout to capture, treat, and infiltrate rooftop runoff. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
41	12,816	0.6	6.5	58.8	0.010	0.35

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	0.016	3	1,170	0.04	155	$775

GREEN INFRASTRUCTURE RECOMMENDATIONS

Saint Hubert's Animal Welfare Center Noah's Ark

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

0 20' 40'

THE ANIMAL HOSPITAL OF ROXBURY

RAP ID: 24

Subwatershed: Musconetcong River

Site Area: 35,733 sq. ft.

Address: 1901 US-46
Ledgewood, NJ 07852

Block and Lot: Block 9402, Lot 13-15

Connected downspouts can be rerouted into the existing planter boxes to be converted into downspout planter boxes. Downspout planter boxes can be constructed along the building to allow roof runoff to be reused. Porous pavement can be installed in the main parking spaces 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"
57	20,257	1.0	10.2	93.0	0.016	0.56

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
Pervious pavement	0.150	25	10,970	0.41	1,025	$25,625
Planter boxes	n/a	3	n/a	n/a	4 (boxes)	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS

The Animal Hospital of Roxbury

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

0 25' 50'

BERKSHIRE VALLEY PARK

RAP ID: **25**

Subwatershed: **Rockaway River**

Site Area: **187,097 sq. ft.**

Address: **79 Mill Road**
Wharton, NJ 07885

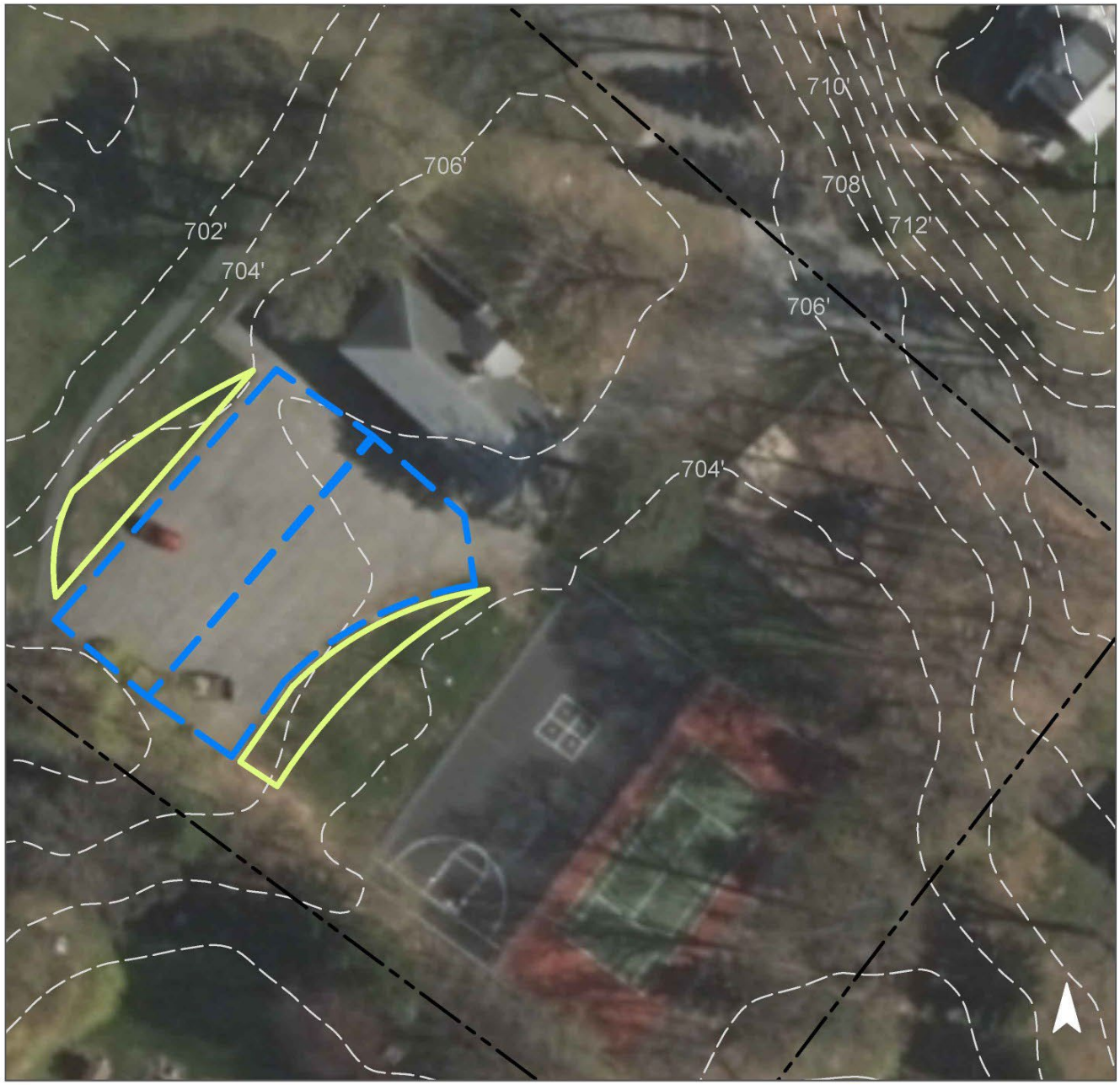
Block and Lot: **Block 13002, Lot 11**

Two rain gardens can be installed on either side of the parking lot to capture, treat, 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"
30	55,632	2.7	28.1	255.4	0.043	1.53

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	0.225	38	16,480	0.62	2,155	$10,775

GREEN INFRASTRUCTURE RECOMMENDATIONS



Berkshire Valley Park

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

0 25' 50'

ROXBURY FIRE COMPANY 3

RAP ID: 26

Subwatershed: Rockaway River

Site Area: 76,303 sq. ft.

Address: 271 Berkshire Valley Road
Wharton, NJ 07885

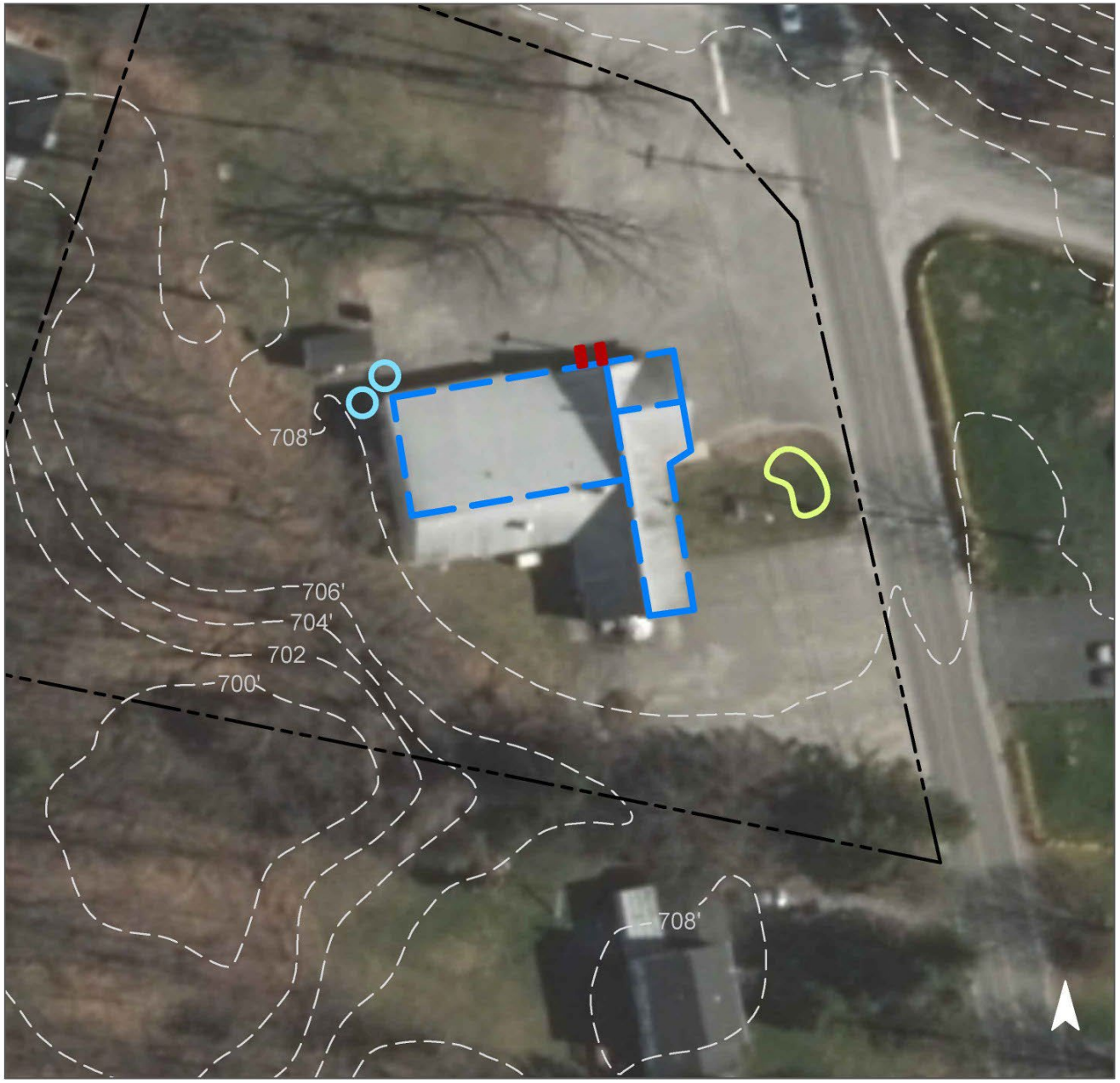
Block and Lot: Block 12501, Lot 21

A rain garden can be installed near the entrance of the building to capture, treat, and infiltrate rooftop runoff. A cistern can be installed at the back of the building to capture roof runoff, which can be used for watering gardens, washing vehicles, or for other non-potable uses. Downspout planter boxes can be installed in front of the building to filter rooftop runoff and provide visual interest. 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"
43	32,868	1.6	16.6	150.9	0.026	0.90

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	0.030	5	2,190	0.08	285	$1,425
Planter boxes	n/a	2	n/a	n/a	2 (boxes)	$2,000
Rainwater harvesting	0.067	11	2,000	0.08	2,000 (gal)	$4,000

GREEN INFRASTRUCTURE RECOMMENDATIONS



Roxbury Fire Company 3

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

0 25' 50'

UNITED METHODIST CHURCH

RAP ID: 27

Subwatershed: Rockaway River

Site Area: 8,786 sq. ft.

Address: 296 Berkshire Valley Road
Wharton, NJ 07885

Block and Lot: Block 13002, Lot 1

A connected downspout can be disconnected and led into a rain garden on the north side of the building near the entrance to capture, treat, and infiltrate rooftop runoff. A preliminary soil assessment suggests that more soil testing would be required before determining the soil's suitability for green infrastructure.

Impervious Cover		Existing Loads from Impervious Cover (lbs/yr)			Runoff Volume from Impervious Cover (Mgal)	
%	sq. ft.	TP	TN	TSS	For the 1.25" Water Quality Storm	For an Annual Rainfall of 44"
30	2,633	0.1	1.3	12.1	0.002	0.07

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	0.026	4	1,910	0.07	154	$770

GREEN INFRASTRUCTURE RECOMMENDATIONS

United Methodist Church

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

0 10' 20'

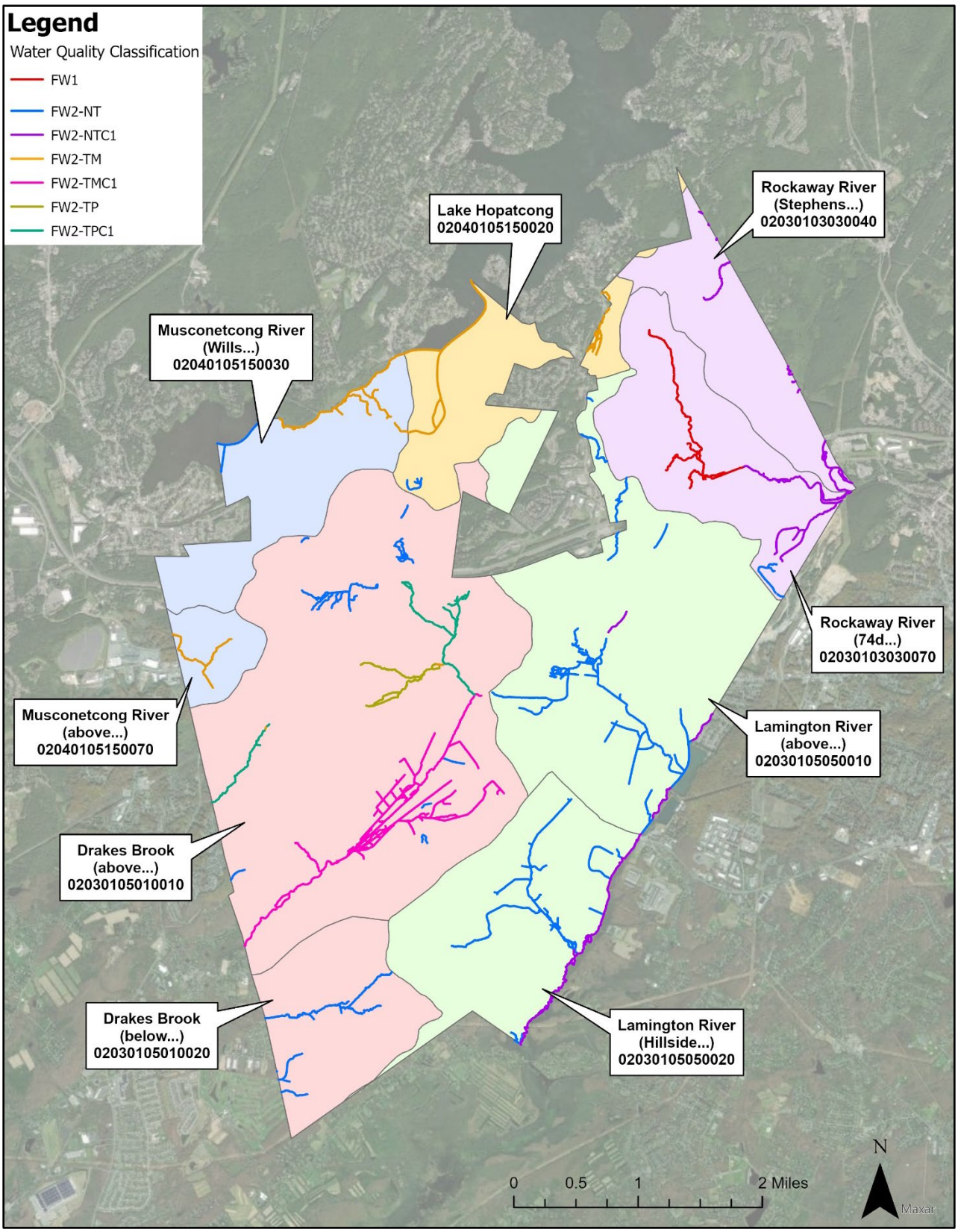


Figure 13. Water Quality Classification of Surface Waters in Roxbury Township

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

Surface Water Quality Classification	Surface Water Quality Code	Miles	Percent of Municipal Streams
Freshwater 1	FW1	3.1	5.5%
Freshwater 2, non-trout	FW2-NT	21.5	38.2%
Freshwater 2, non-trout, Category One	FW2-NTC1	8.5	15.1%
Freshwater 2, trout production, Category One	FW2-TPC1	3.3	5.8%
Freshwater 2, trout maintenance	FW2-TM	7.0	12.4%
Freshwater 2, trout production	FW2-TP	1.7	3.1%
Freshwater 2, trout maintenance, Category One	FW2-TMC1	11.3	20.0%