Edison

MIDDLESEX COUNTY, NEW JERSEY

Environmental Resource Inventory

Prepared by Heyer, Gruel & Associates

June 2011

2011

ENVIRONMENTAL RESOURCE INVENTORY

Township of

EDISON

Middlesex County, New Jersey

Scenic Resources Element
Prepared by
Edison Township Environmental Commission

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A Special Thanks To...

Association of New Jersey Environmental Commissions (ANJEC)

Edison Township Environmental Commission (ETEC)

Edison Sustainable Jersey Green Team (ESJGT)

ETEC ERI Steering Committee
Kristyn Morrison; Walter Stochel; Robert Takash; Tom Wolfe; Mike Kruimer;
Volunteer Municipal Employees

Edison Open Space Advisory Committee (EOSC)

Edison Greenways Group (EGG)

Metuchen & Edison Historical Society (MEHS)

Edison Department of Planning & Engineering (EDEP)

Edison Department of Public Works (EDPW)

Edison Department of Health & Human Services (EDHHS)

Edison Department of Recreation (EDR)

Edison Department of Administration (EDA)

Edison Planning Board (EPB)

Edison Television (ETV)

Municipal Council, Township of Edison

Hon. Antonia Ricigliano, Mayor, Township of Edison

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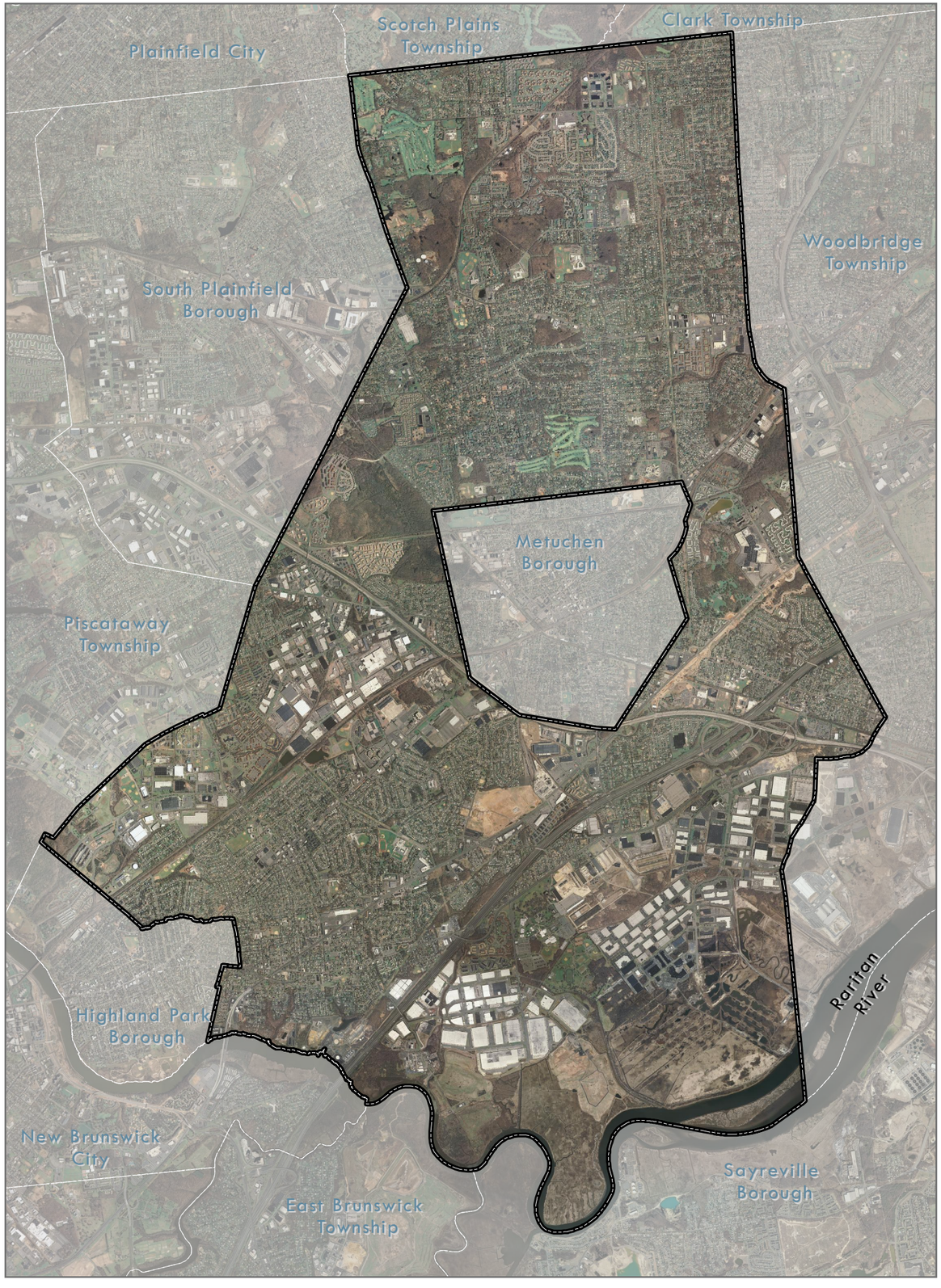

The Township of EDISON

Environmental Resource Inventory

2007 AERIAL

Municipal Boundary

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJGS

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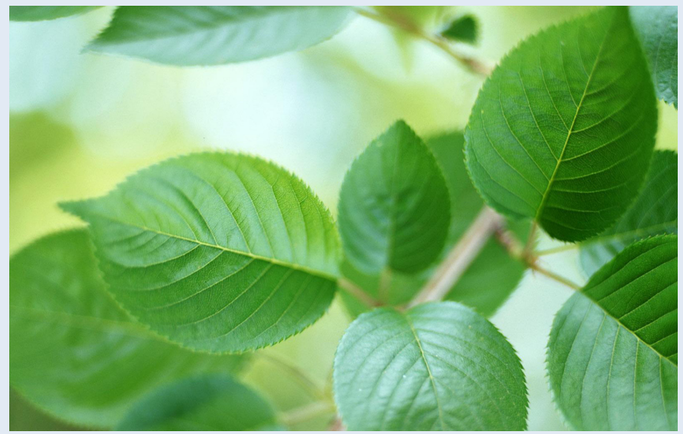
November 2010

Introduction

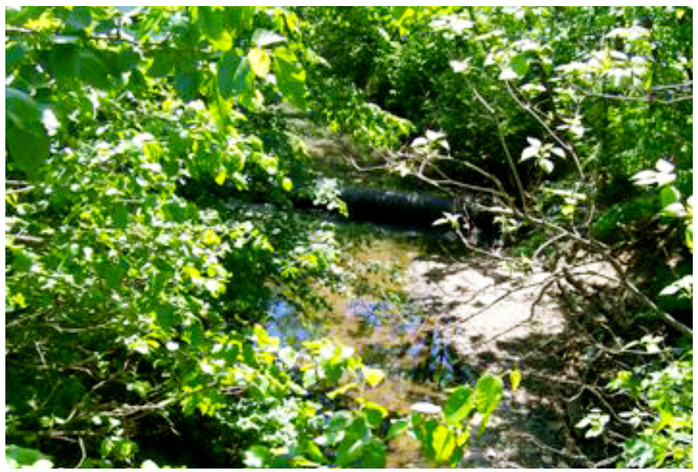
The Environmental Resource Inventory (ERI) is an unbiased report of data that describes the current state of the various environmental resources in a community. It is a compilation of text and maps, and forms the baseline documentation that the community can use to evaluate, and possibly revise, planning documents, policy initiatives, and local ordinances to better protect the remaining resources, and when possible, improve the state of the natural environment.

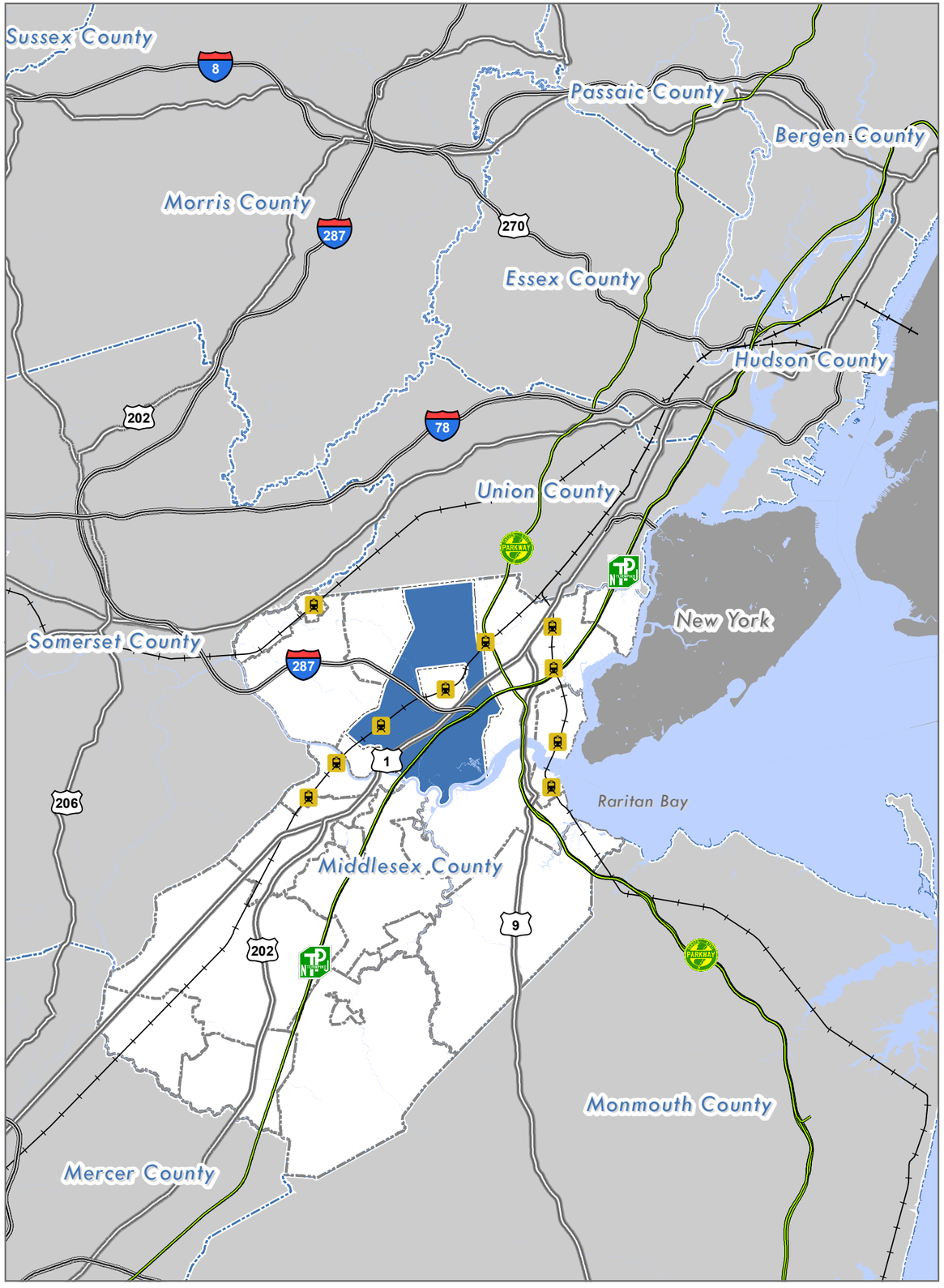
The ERI is not a policy statement or a plan. Rather, it is an objective listing of the resources in the community. It can be used as a tool for Environmental Commissions, Planning Boards and Zoning Boards, as well as by the Township administration and the public at large. The ERI can be adopted as part of the Master Plan, or it can be combined with policy statements and programs to create a Conservation Element for the Master Plan. ERI's are often the basis for resource protection ordinances in a community, which are designed to protect the resources inventoried in the ERI. Whether the ERI is part of a Conservation Element, or a separate reference document, it is always seen as dynamic and revisable, as circumstances on the ground evolve and change.



The legal authority for the drafting and adoption of an ERI is the Environmental Commission Enabling Legislation (N.J.S.A. 40:56A), which states, "Power to conduct research into the use and possible use of open land areas of the municipality…It shall keep an index of the marshlands, swamps, and wetlands…the proper use of such areas…recommend to the Planning Board…plans and programs for a master plan and the development of such areas." Additionally, the Municipal Land Use Law (N.J.S.A 40:55D) requires a Land Use Plan element and states that "Whenever the Environmental Commission has prepared and submitted to the Planning Board and to the Board of Adjustment an index of the natural resources of the municipality, the Planning Board or the Board of Adjustment shall make available to the Environmental Commission an informational copy of every application for development submitted to the board."

It should be noted that all of the information included in this ERI should be considered to be reasonably accurate for planning purposes, but does not replace site-specific investigations for regulatory purposes. It should also be noted that the most up-to-date data sources were used to create this document; however, some of the most recent information is based on data and aerial photography collected by NJDEP in 2002 and 2007. Other information is based on topographic maps that were last updated prior to that time. Environmental resource information is dynamic and should always be understood to be so.





The Township of EDISON

Environmental Resource Inventory

CONTEXT MAP

- Edison Township
- Other Middlesex County Municipalities
- Middlesex County Railroad Stations

Road Type

- Interstate
- US Highway
- Toll Road

1 in = 5 miles

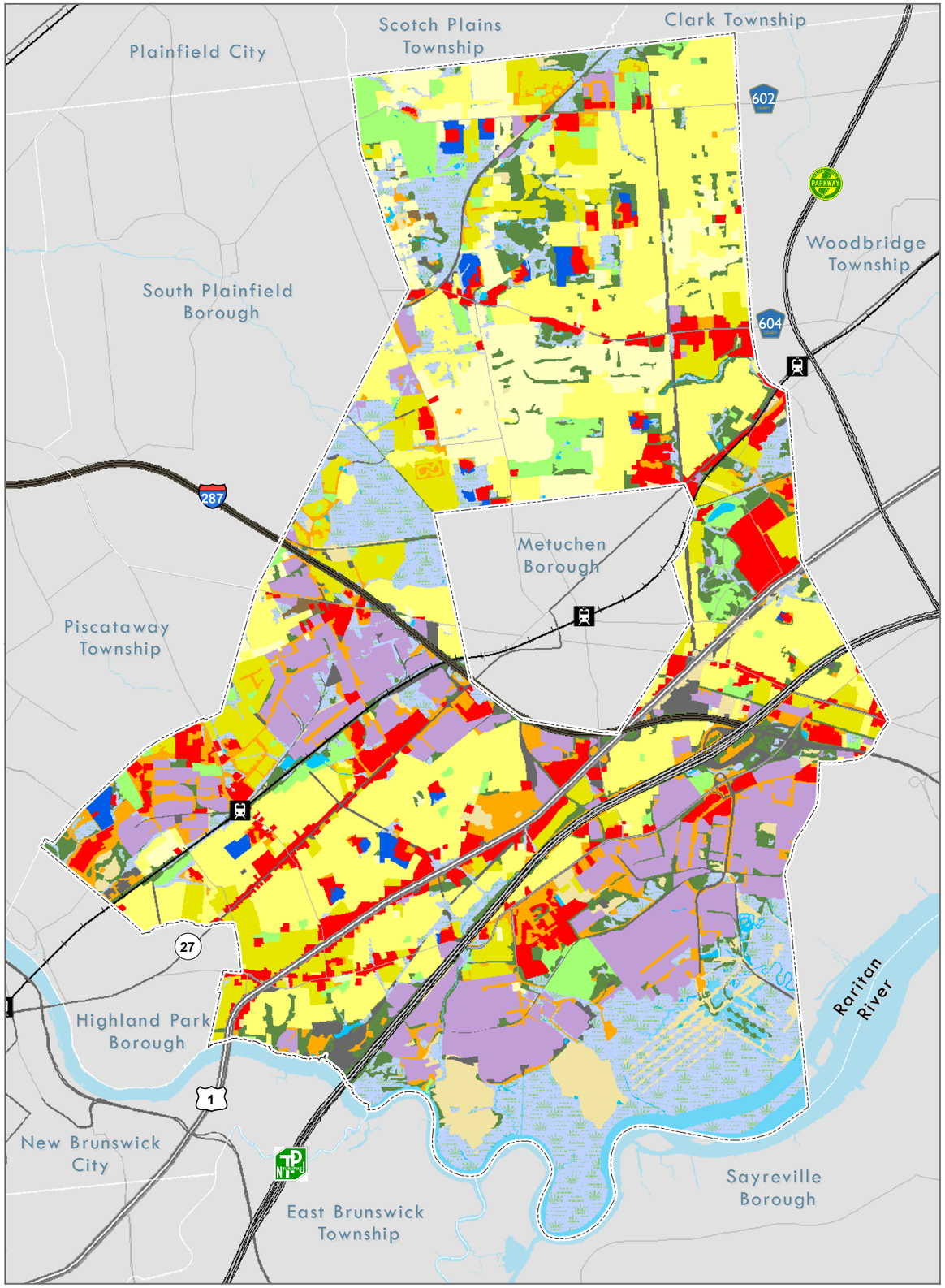
0 5 10 Miles

N

Data Source: NJDEP

November 2010

Current Land Use/ Land Cover



The Township of EDISON

Environmental Resource Inventory

LAND USE / LAND COVER 2007

- Residential - Low Density
- Residential - Medium Density
- Residential - Mixed
- Residential - High Density
- Commercial
- Industrial and Light Industrial
- Mixed Urban
- Transportation and Utilities
- Water
- Wetlands
- Barren Land
- Cemetery
- Athletic Fields (Schools)
- Recreational Land
- Forest
- Agriculture

1 in = 5,000 feet

Feet

0 2,500 5,000 10,000

Data Source: NJDEP

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November 2010

Edison Township is dominated by urban areas that consist of residential uses, commercial uses, industrial uses, lands used for transportation networks, schools, churches, cemeteries, recreation areas, military uses, etc. All the urban uses amount to approximately 14,300 acres, or just under 73% of total land area. It is covered to a lesser extent by wetlands (14.8%) and forests (7.3%). The total land area is approximately 30.6 square miles, or 19,614.4 acres. The following chart is a summary of land uses by six major land use types in the Township, derived from the 2007 NJDEP Land Use/ Land Cover GIS data. While this data is now four years old, it is the most current data available.

Major Land Use Types	Acres	Percent of Total
Urban	14,294.9	72.8
Wetlands	2,918.1	14.8
Forest	1,440.0	7.3
Water	481.5	2.4
Barren Land	452.8	2.3
Agriculture	27.1	0.1
Total Area (from Land Use data)	19,614.4	100.0

The single largest land use identified in the Township is urban land, which occupies 14,294.9 acres, or just less than 73% of the total land. Urban land uses include residential, industrial, commercial and services, transportation (including roadways, communication and utilities), and other minor uses such as schools, religious institutions, cemeteries, parking lots, and recreational land.

Residential land uses in the Township are very high. Most prevalent Residential subtypes in order are: single-family medium-density homes; high-density multi-family units; and, single-family low-density homes. These three land uses, together cover 7,114.3 acres or 36.3% of land area within the township. Rural residential uses occupy 220 acres or 1.1% of the total land area.

Other urban land uses in Edison Township are industrial and commercial uses. The industrial uses take up around 2,285 acres or 11.7% of the land, and

commercial and service-oriented uses (which include shopping malls, retail stores, gas stations, restaurants and other similar uses) cover about 1,546.1 acres or 7.9% of the total land area. Further important land uses in the area include other urban or built-up land, which occupy about 1,075 acres or 5.5% of total land. Recreational land including: playgrounds, school athletic fields, stadiums, theaters, cultural centers and zoos – takes up a little over 734 acres or 3.7%, while unused, barren land occupies 452 acres or 2.3% of total land. Urban land uses combine to cover just under three-quarters (69%) of all the land in the Township, and illustrate the high-density, urban character of its most predominant, high-density residential, commercial, and industrial uses.

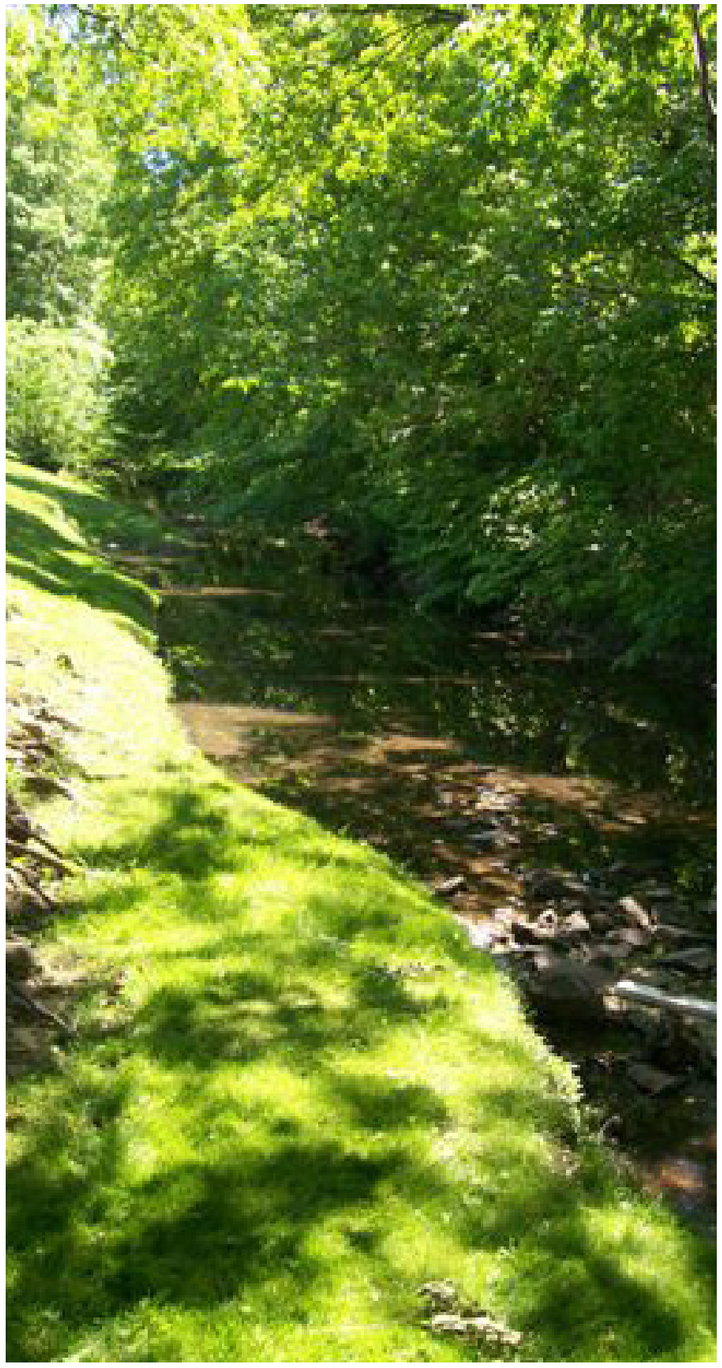
Wetland land use type, which covers about 2,918 acres or 14.9% of total land area, is the second most predominant land-use. Forest is the third significant land use type in the Township, covering about 1,440 acres or 7.3% of total land area.

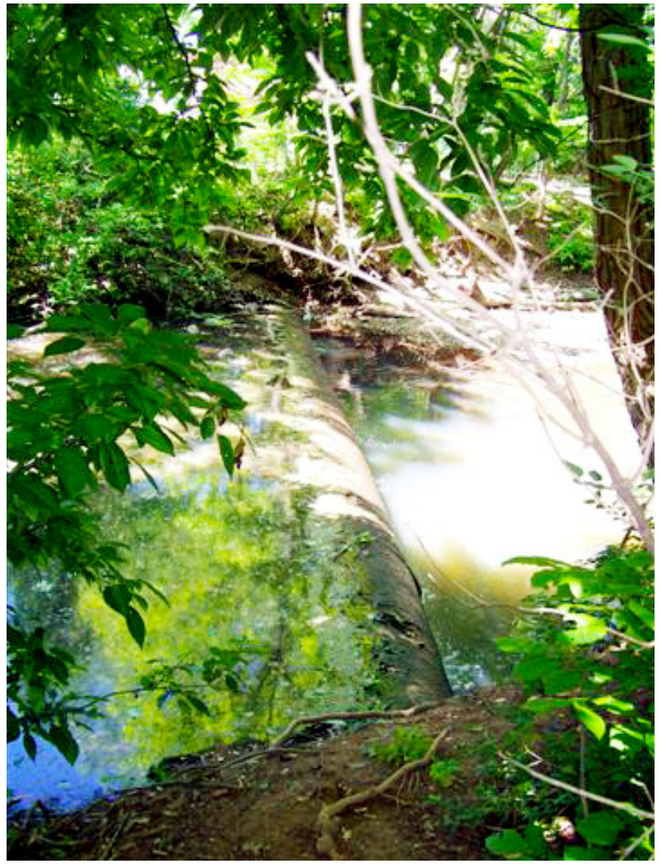
The following table summarizes the acreage and percent total of land use in the Township by the six broad land use type categories and their subtypes.

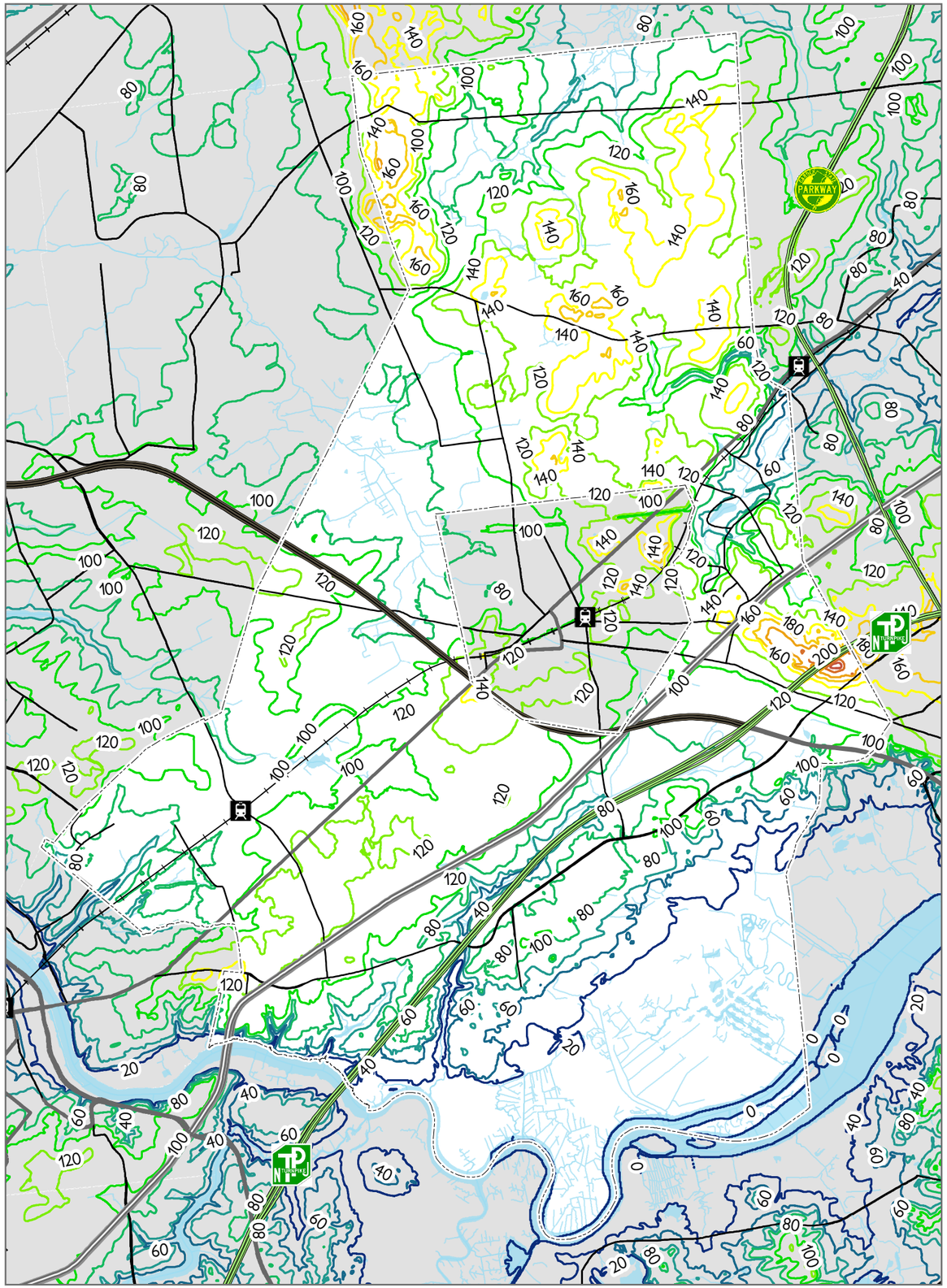
Detailed Land Use / Land Cover		
Land Use Subtypes	**Area (in acres)**	**Percent of Total**
Urban Subtypes		
Residential, Single Unit, Medium Density	4,564.3	23.3
Industrial and Light Industrial	2,313.8	11.7
Commercial/Services	1,550.5	7.9
Residential, High Density or Multiple Dwelling	1,438.3	7.3
Residential, Single Unit, Low Density	1,111.7	5.7
Other Urban or Built-Up Land	1,075.8	5.5
Recreational Land	761.0	3.9
Major Roadway	480.6	2.5
Residential, Rural, Single Unit	220.3	1.1
Transportation/Communication/Utilities	172.6	0.9
Athletic Fields (Schools)	169.6	0.9
Railroads	166.2	0.8
Former Military, Indeterminate Use	96.7	0.5
Upland Rights-of-Way Developed	90.5	0.5
Upland Rights-of-Way Undeveloped	56.7	0.3
Storm Water Basin	40.2	0.2
Cemetery	5.5	0.03
Mixed Urban or Built-Up Land	4.8	0.02
Stadium, Theaters, Cultural Centers and Zoos	4.2	0.02
Total of all Urban Subtypes	**14,323.30**	**69.0**
Wetland Subtypes		
Deciduous Wooded Wetlands	1,259.4	6.4
Phragmites Dominate Coastal Wetlands	642.2	3.3
Saline Marsh (Low Marsh)	164.6	0.8
Deciduous Scrub/Shrub Wetlands	160.8	0.8
Disturbed Wetlands (Modified)	160.1	0.8
Herbaceous Wetlands	136.6	0.7
Mixed Scrub/Shrub Wetlands (Deciduous Dominated)	89.4	0.5
Phragmites Dominate Interior Wetlands	88.0	0.4
Saline Marsh (High Marsh)	63.7	0.3
Managed Wetland in Maintained Lawn/Green space	52.8	0.3
Managed Wetland in Built-Up Maintained Recreation Area	41.1	0.2
Wetland Rights-of-Way	36.3	0.2
Mixed Scrub/Shrub Wetlands (Coniferous Dominated)	11.5	0.1
Agricultural Wetlands (Modified)	7.5	0.04
Mixed Wooded Wetlands (Deciduous Dominated)	2.8	0.01
Coniferous Scrub/Shrub Wetlands	1.3	0.01
Total of all Wetland Subtypes	**2,918.1**	**14.9**

Forest Subtypes		
Deciduous Forest (>50% Crown Closure)	739.3	3.8
Deciduous Brush/Shrubland	285.5	1.5
Old Field (< 25% Brush Covered)	142.9	0.7
Deciduous Forest (10-50% Crown Closure)	136.4	0.7
Mixed Deciduous/Coniferous Brush/Shrubland	109.3	0.6
Coniferous Brush/Shrubland	13.0	0.1
Mixed Forest (>50% Deciduous With 10-50% Crown Closure)	7.7	0.04
Phragmites Dominate Old Field	2.8	0.01
Coniferous Forest (10-50% Crown Closure)	1.7	0.01
Coniferous Forest (>50% Crown Closure)	1.3	0.01
Total of all Forest Subtypes	**1,439.9**	**7.3**
Water Subtypes		
Tidal Rivers, Inland Bays, and Other Tidal Waters	383.6	2.0
Artificial Lakes	75.5	0.4
Streams and Canals	15.1	0.1
Natural Lakes	7.2	0.04
Bridge over water	0.1	0.001
Total of all Water Subtypes	**481.5**	**2.5**
Barren Land Subtypes		
Altered Lands	290.7	1.5
Transitional Areas	130.8	0.7
Undifferentiated Barren Lands	2.9	0.01
Total of all Barren Land Subtypes	**424.4**	**2.3**
Agriculture Subtypes		
Orchards/Vineyards/Nurseries/Horticultural Areas	17.3	0.1
Cropland and Pastureland	5.3	0.03
Other Agriculture	4.6	0.02
Total of all Agriculture Subtypes	**27.2**	**0.1**
Total Acreage of all Land Use Types	**19,614.4**	**100.0**

Source: 2007 Land Use Land Cover, NJDEP







The Township of EDISON

Environmental Resource Inventory

CONTOURS

- 0 - 20
- 21 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- 141 - 160
- 161 - 180
- 181 - 200
- 201 - 220

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJGS

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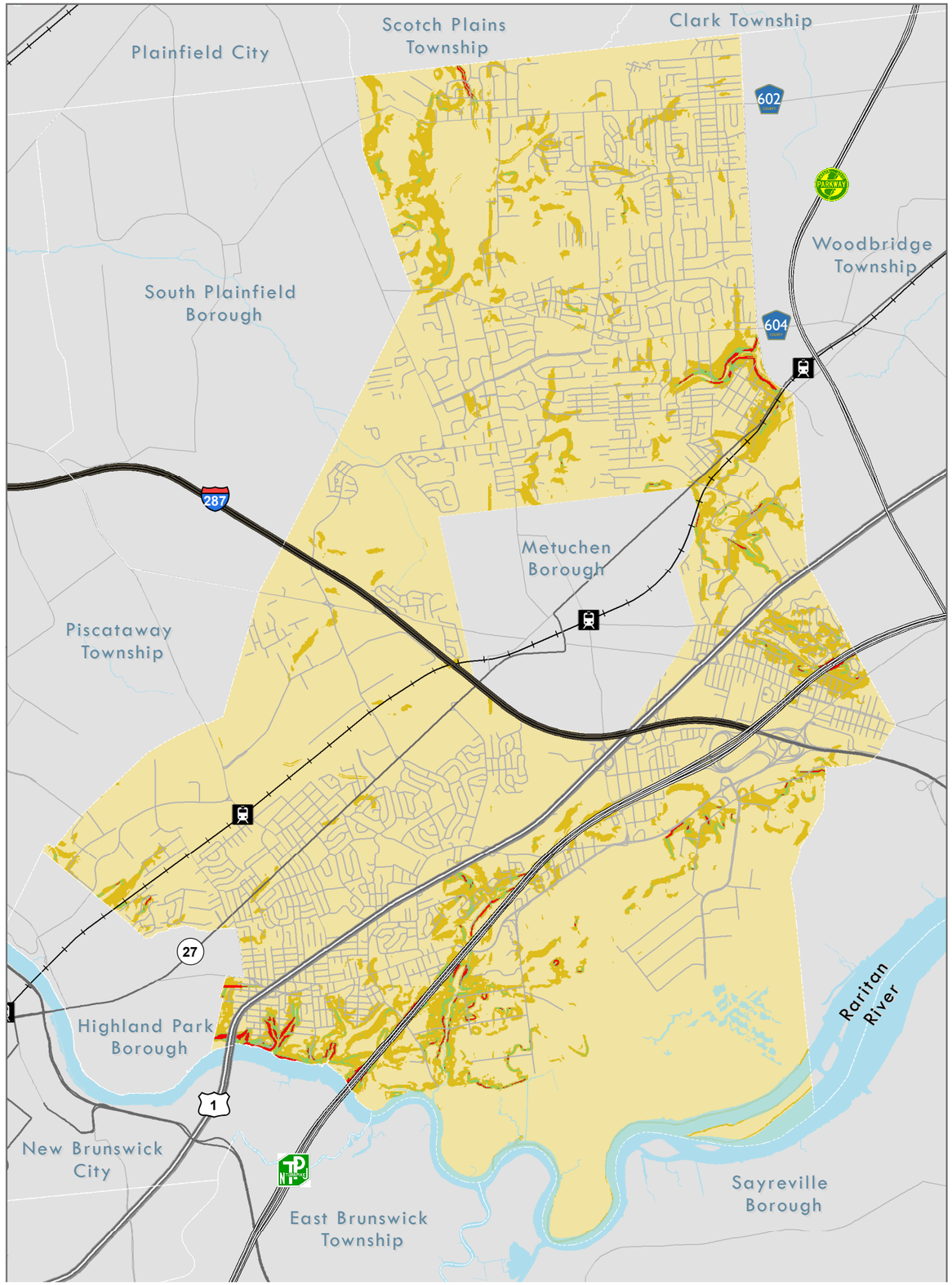
2010

Topography

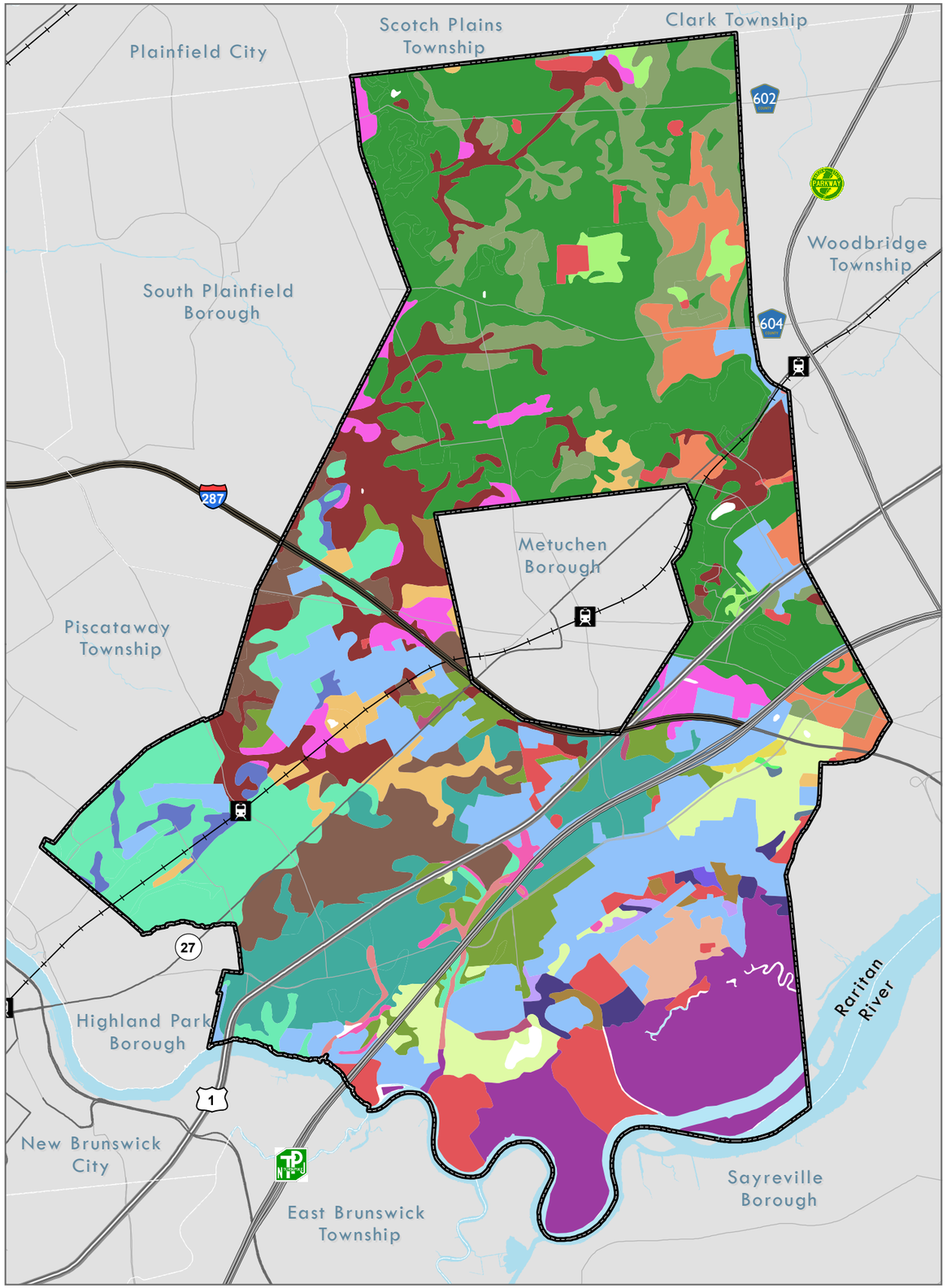
The topography of Edison Township consists of a relatively flat terrain and slopes down towards the Raritan River, South Branch Rahway River, and many other smaller rivers and creeks. Although much of these slopes towards the riverbeds are gentle, the terrain does exhibit steeper slopes in some areas. Nonetheless, very few areas of the Township have steep slopes that are not suitable for building.

The highest elevations in the Township are southeast of Roosevelt Park between Route1 and the NJ Turnpike, which reach a maximum of about 200 feet above sea level. Other areas of high elevation are found in northern parts of the Township. The lowest elevations are found along the southern edge, due to the Raritan River. The majority of the Township is found between the 20- and 160-foot contours.

Steep slopes are those areas with land topology gradient greater than 15 percent. These areas have limited capacity for community development, often accompanied by adverse environmental impacts, due to high construction costs and the potential for soil erosion. According to Soil Conservation Service data, there are a few areas in the Township with major slopes that exceed 15 percent.



Soils



The Township of EDISON

Environmental Resource Inventory

SOILS

- Atsion
- Boonton
- Bucks
- Carlisle-Adrian
- Dunellen
- Elkton
- Fallsington
- Galloway
- Haledon
- Hasbrouck
- Keyport
- Klinesville
- Lakehurst
- Lansdowne
- Manahawkin
- Mullica
- Nixon
- Nixon-Urban
- Parsippany
- Pawcatuck-Transquaking
- Pits: clay, sand and gravel
- Psamments
- Reaville
- Rowland
- Sassafras
- Udorthents
- Urban land
- Woodstown

1 in = 5,000 feet

Feet

0 2,500 5,000 10,000

Data Source: NJDEP, NJ NRCS

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November 2010

Knowledge of soil types, characteristics, and their geographic distribution can inform the planning and policy processes and influence the growth and development of a community. Data on soil depth, permeability, water table and other physical properties are useful when determining the suitability of soils for foundation construction, location of septic system leaching fields, landscaping, preservation of farmland, and construction of roads, athletic fields or parks. The soil data in this report are provided by the National Resources Conservation Service of the United States Department of Agriculture, which started conducting national soil samples in 1899 and continues today.

Soil classifications address such issues as depth to ground water, depth to bedrock, and development suitability. The farmland classification prescribed by NRCS identifies map units as prime farmland soils, unique farmland soils, farmland soils of statewide importance, or farmland soils of local importance. Farmland classification identifies the location and extent of the most suitable soils for producing food, feed, fiber, forage, and oilseed crops. This identification is useful in the management and maintenance of productive agricultural soils.

Prime Farmland Soils

Prime Farmland Soils include all those soils in Land Capability Class I and selected soils from Land Capability Class II. Class I soils have slight limitations that restrict their use. Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation practices. Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It has the soil quality, growing season and moisture supply needed to economically produce sustained high yields of crops when treated and managed according to acceptable farming methods.

The major advantages of prime agricultural soils are their fertility and lack of limitations for crop production purposes. Because of their naturally high fertility and lack of limitations, prime agricultural soils produce superior crop yields on a consistent basis when measured against those soils not rated as prime. Prime Farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are often protected from flooding.

In Edison Township, the following Prime Farmland Soils are found:

Prime Farmland Soil Description	Area in acres
Boonton loam, 3 to 8 % slopes	1,745
Bucks silt loam, 2 to 6 % slopes	580
Haledon silt loam, 0 to 3 % slopes	116
Haledon silt loam, 3 to 8 % slopes	195
Keyport loam, 0 to 2 % slopes	2
Keyport loam, 2 to 5 % slopes	8
Nixon loam, 0 to 2 % slopes	72
Nixon loam, 2 to 5 % slopes	282
Sassafras loam, 2 to 5 % slopes	3
Woodstown sandy loam, 0 to 2 % slopes	4
Total Acreage of Prime Farmland Soils	**3,007**

Note: The acres have been rounded off to the nearest whole number.

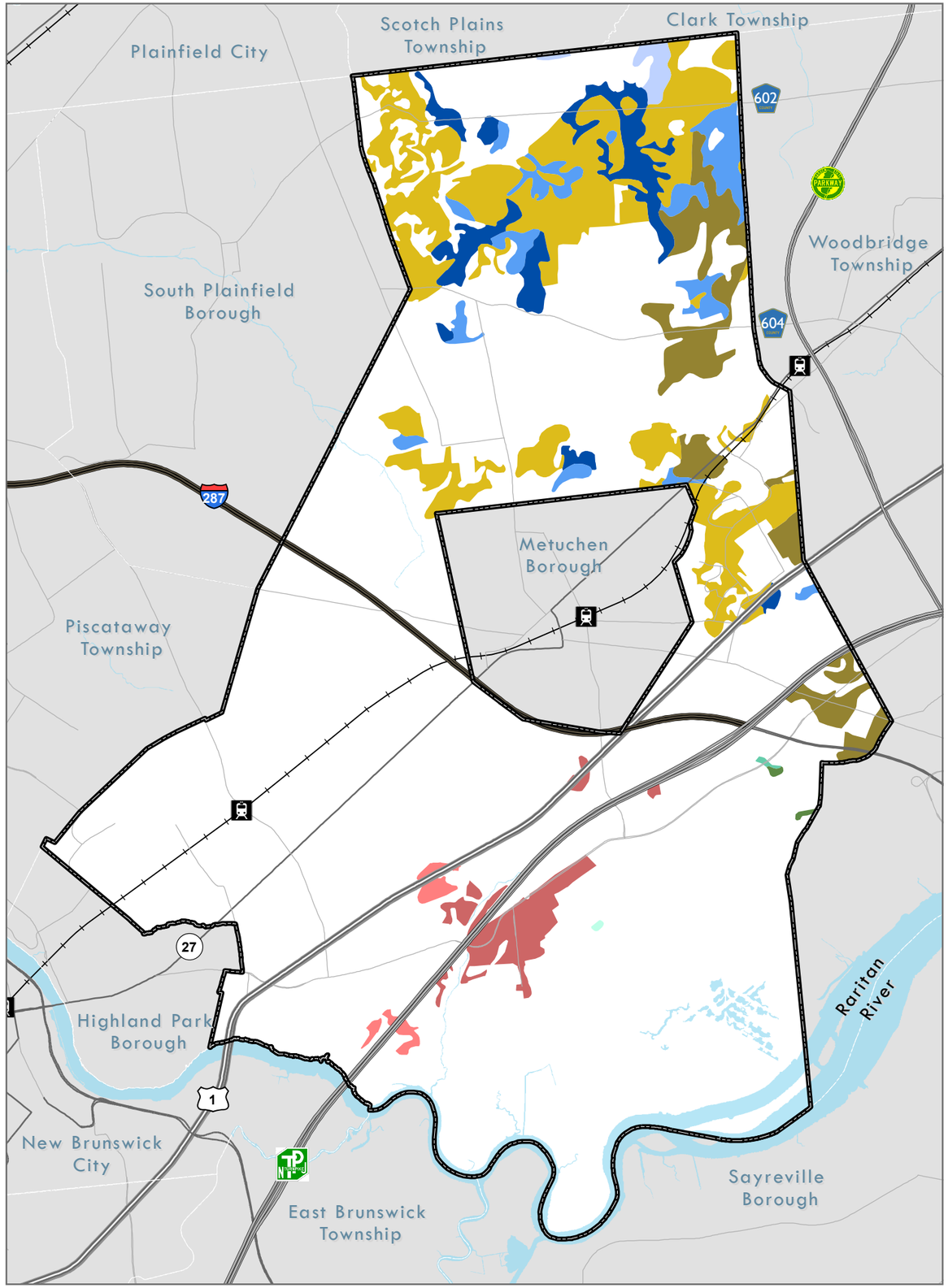
Source: NJ Geological Survey, SSURGO dataset

Unique Farmland Soils

Unique Farmland Soils are soils other than prime farmland soils that are used for the production of specific high value food and fiber crops. They have the special combination of soil quality, location, growing season and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are citrus, tree nuts, olives, cranberries, fruit and vegetables.

Specific characteristics of unique farmland soils are:

- Used for a specific high-value food or fiber crop;
- Has a moisture supply that is adequate for the specific crop. The supply is from stored moisture, precipitation or a developed-irrigation system;
- Combines favorable factors of soil quality, growing season, temperature, humidity, air drainage, elevation, aspect or other conditions, nearness to market, that favor the growth of a specific food or fiber crop.



The Township of EDISON

Environmental Resource Inventory

PRIME FARMLAND SOILS

- Boonton loam, 3 to 8 % slopes
- Bucks silt loam, 2 to 6 % slopes
- Haledon loam, 0 to 3 % slopes
- Haledon silt loam, 0 to 3 % slopes
- Haledon silt loam, 3 to 8 % slopes
- Keyport loam, 0 to 2 % slopes
- Keyport loam, 2 to 5 % slopes
- Nixon loam, 0 to 2 % slopes
- Nixon loam, 2 to 5 % slopes
- Sassafras loam, 2 to 5 % slopes
- Woodstown sandy loam, 0 to 2 % slopes

1 in = 5,000 feet

Feet

0 2,500 5,000 10,000

Data Source: NJDEP, NJ NRCS

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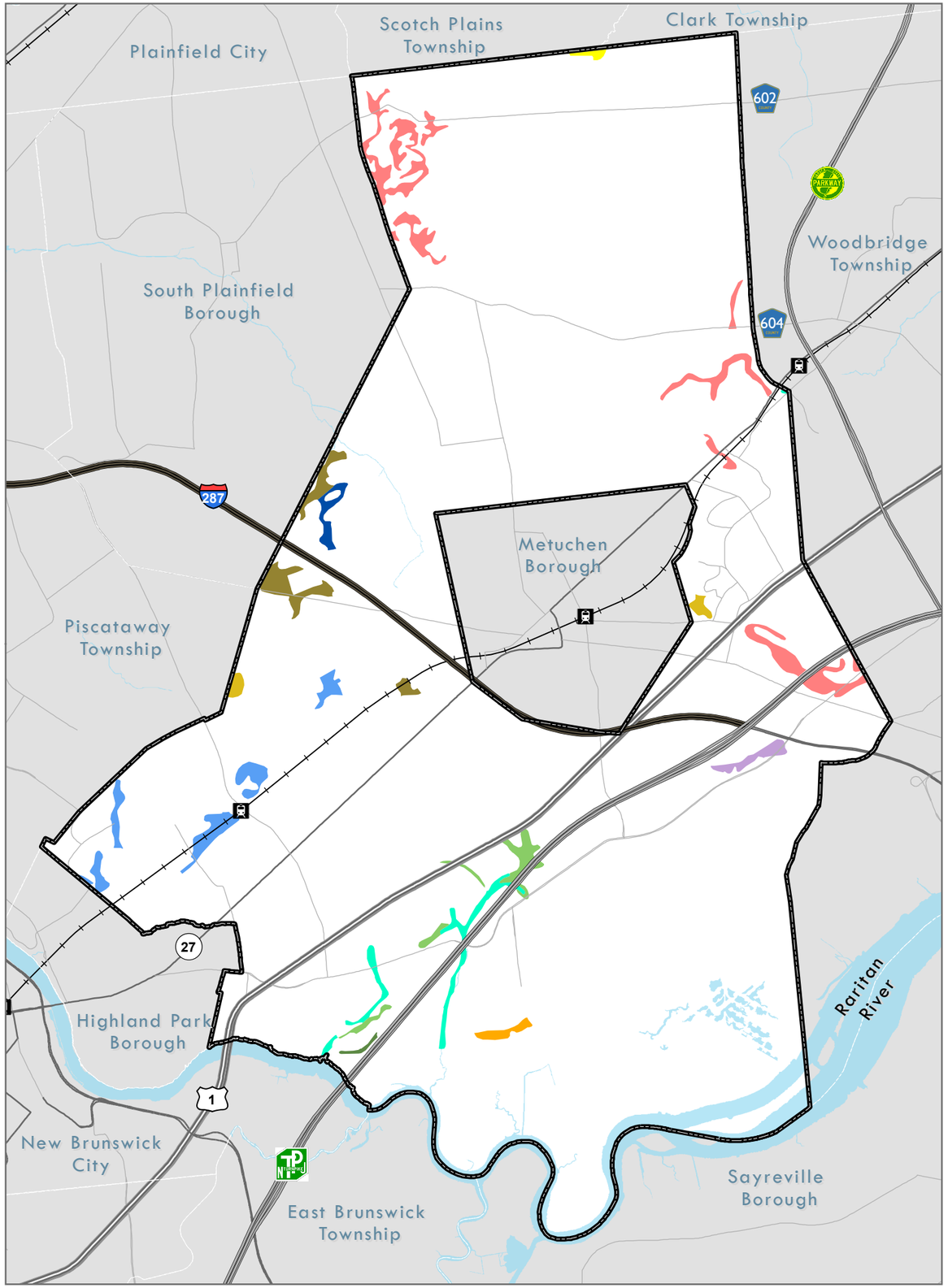


The Township of
EDISON

Environmental Resource Inventory

SOILS OF IMPORTANCE

Soils of Unique Farmland

- Carlisle-Adrian mucks, 0 to 2 % slopes, frequently flooded

Soil of Local Importance (County)

- Rowland silt loam, 0 to 2 % slopes, frequently flooded

Soils of State Importance

- Boonton loam, 8 to 15 % slopes
- Elkton loam, 0 to 2 % slopes, rarely flooded
- Fallsington loam, 0 to 2 % slopes
- Lansdowne silt loam, 0 to 2 % slopes
- Lansdowne silt loam, 2 to 6 % slopes
- Reaville silt loam, 0 to 2 % slopes
- Reaville silt loam, 2 to 6 % slopes
- Sassafras gravelly sandy loam, 5 to 10 % slopes
- Sassafras gravelly sandy loam, 10 to 15 % slopes

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJ NRCS

N

November 2010

In Edison Township, the following unique farmland soils for special crops are found:

Unique Farmland Soil Description	Area in acres
Carlisle-Adrian mucks, 0 to 2 percent slopes, frequently flooded	7
Total Acreage of Soils of Unique Farmland Soils	**7**

Note: The acres have been rounded off to the nearest whole number.

Source: NJ Geological Survey, SSURGO dataset

Soils of Statewide Importance

Soils of Statewide Importance include those soils in land capability Class II and III that do not meet the criteria as Prime Farmland Soils. Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation practices. Class III soils have severe limitations that reduce the choice of plants or require special conservation practices, or both. These soils are nearly Prime Farmland Soils and economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce yields as high as Prime Farmland if conditions are favorable.

Criteria for defining and delineating this land are to be determined by the appropriate State agency or agencies. In some States, additional farmlands of statewide importance may include tracts of land that have been designated for agriculture by State law.

In Edison Township, the following soils of statewide importance are found:

Statewide Importance Soil Description	Area in acres
Boonton loam, 8 to 15 % slopes	256
Elkton loam, 0 to 2 % slopes, rarely flooded	26
Fallsington loam, 0 to 2 % slopes	17
Lansdowne silt loam, 0 to 2 % slopes	23
Lansdowne silt loam, 2 to 6 % slopes	88
Reaville silt loam, 0 to 2 % slopes	115
Reaville silt loam, 2 to 6 % slopes	25
Sassafras gravelly sandy loam, 5 to 10 % slopes	61
Sassafras gravelly sandy loam, 10 to 15 % slopes	5
Total Acreage of Soils of Statewide Importance	**435**

Note: The acres have been rounded off to the nearest whole number.

Source: NJ Geological Survey, SSURGO dataset

Soils of Local Importance

Soils of Local Importance include those soils that are not prime or statewide importance and are used for the production of high value food, fiber or horticultural crops. In some local areas certain farmlands are not identified as having national or statewide importance. Where appropriate, these lands are identified by the local agency or agencies concerned. These may also include tracts of land that have been designated for agriculture by local ordinance.

Local Importance Soil Description	Area in acres
Rowland silt loam, 0 to 2 % slopes, frequently flooded	71
Total Acreage of Soils of Local Importance	71

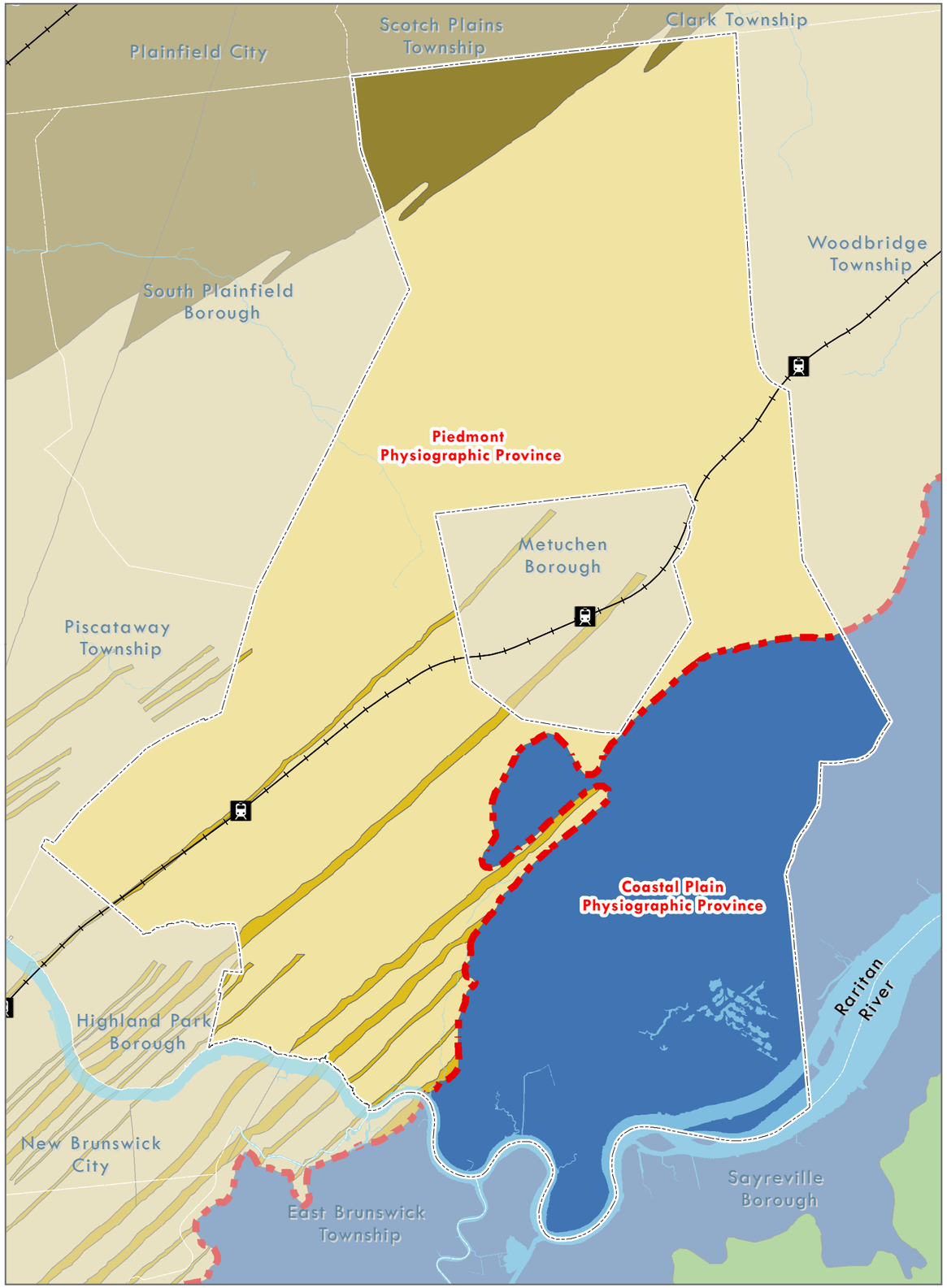
Note: The acres have been rounded off to the nearest whole number.

Source: NJ Geological Survey, SSURGO dataset

Soil Sub-Series and Constraints to Urban Development:

Symbol	Soil Description	Constraints to Urban Development
AtsA	Atison sand, 0 to 2% slopes	The seasonal high water table limits this soil for most types of community development due to risk of frequent flooding.
BogB	Boonton loam, 3 to 8% slopes	The perched water table and the permeability in the lower part of the subsoil are limitations for community development, particularly as a site for dwellings with basements, septic disposal systems, and streets.
BogC	Boonton loam, 8 to 15% slopes	The perched water table and the permeability in the lower part of the subsoil are limitations for community development, particularly as a site for dwellings with basements, septic disposal systems, and streets.
BouB	Boonton-Urban land complex, 0 to 8% slopes	The soils in these areas are suitable for lawns, shade trees, shrubs, vines and vegetable gardens. The slow permeability and slow run-off are limitations for community development.
BovB	Boonton-Urban land-Haledon complex, 0 to 8% slopes	The soils in these areas are suitable for lawns, shade trees, shrubs, vines and vegetable gardens. The slow permeability, slow run-off, along with a seasonal high water table (a typical characteristic of the Haledon-Complex) are limitations for community development,
BucB	Bucks silt loam, 2 to 6 % slopes	The soil is generally used for field crops, vegetables, apples, and nursery crops. It offers moderate limitations for dwellings without basements, septic-tank absorption fields, sanitary landfills, streets and athletic fields, mainly due to rippable bedrock, potential frost action, and gentle slopes.
HanA	Haledon silt loam, 0 to 3% slopes	Limitations for community development are the slow permeability in the lower part of subsoil, and seasonal high water table. They limit its use as a site for septic systems, dwellings with basements, and streets.
HanB	Haledon silt loam, 3 to 8% slopes	Limitations for community development are the slow permeability in the lower part of subsoil, and seasonal high water table. They limit its use as a site for septic systems, dwellings with basements, and streets.
HasA	Haledon-Urban land complex, 0 to 3% slopes	Limitations for community development are the slow permeability in the lower part of subsoil, and seasonal high water table. They limit its use as a site for septic systems, dwellings with basements, and streets.
HatB	Haledon-Urban land-Hasbrouck complex, 0 to 8% slopes	Limitations for community development are the slow permeability in the lower part of subsoil, and seasonal high water table. They limit its use as a site for septic systems, dwellings with basements, and streets.
HctA	Hasbrouck silt loam, 0 to 3% slopes	Limitations for community development are the slow permeability in the lower part of subsoil, and seasonal high water table. They limit its use as a site for septic systems, dwellings with basements, and streets.
KemA	Keyport sandy loam, 0 to 2% slopes	Limitations for dwellings with basements, septic tank filter fields, and some recreation areas are the seasonal high water table, shrinking and swelling, slow percolation, and the high frost action potential.
KemB	Keyport sandy loam, 10 to 15% slopes	Limitations for dwellings with basements, septic tank filter fields, and some recreation areas are the seasonal high water table, shrinking and swelling, slow percolation, and the high frost action potential.
KeoA	Keyport loam, 0 to 2% slopes	The slow permeability, high frost-action potential, and seasonal wetness limit this soil for most urban uses.
KeoB	Keyport loam, 2 to 5% slopes	The main limitations of this soil for urban uses are the seasonal high water table (limits dwellings with basements), slow permeability (limits on-site septic systems) and high frost-action potential (limits local roads/ streets).
KkoE	Klinesville channery loam, 18 to 35% slopes	Pervious and rippable bedrock and moderate slopes limit the soil as site for dwellings with basements, septic systems, local roads and streets.

Symbol	Soil Description	Constraints to Urban Development
KkoB	Klinesville channery loam, 2 to 6% slopes	Pervious and rippable bedrock and moderate slopes limit the soil as site for dwellings with basements, septic systems and local roads and streets.
MakAt	Manahawkin muck, 0 to 2% slopes, frequently flooded	The main limitations of this soil as sites for most urban uses are ponding, flooding, cutbanks caving and subsidence of the surface layer due to low strength.
PbpAt	Parsippany silt loam, 0 to 3% slopes	Seasonal high water table, low strength, and permeability limit the soil as a site for septic effluent disposal, dwellings with basements, lawns, landscaping, and local roads and streets.
PbpuAt	Parsippany, frequently flooded-Urban land complex, 0 to 3% slopes	Seasonal high water table, low strength, and permeability limit the soil as a site for septic effluent disposal, dwellings with basements, lawns, landscaping, and local roads and streets.
PdwAv	Pawcatuck-Transquaking complex, 0 to 2% slopes, very frequently flooded	This soil is generally found in tidal marshlands and is unsuitable for community development. It is poorly drained, has a slow run-off, and permeability can be moderate to rapid in the organic layers and very rapid in the underlying mineral sediments. Unless protected, this soil can be easily flooded.
PHM	Pits, clay	These are generally spoil that remains in a borrow clay pit after mining has occurred. The pits have either been smoothed or have mounds. Some of these areas are use for land fill, building sites or recreation areas. For most uses onsite investigation and evaluation are needed.
PHG	Pits, sand and gravel	These are areas that have been excavated for sand and gravel. Trees have re-grown in some pits and some abandoned pits are used as dumps. The properties and characteristics differ from place to place. For most uses onsite investigation and evaluation are needed.
PssA	Psamments, 0 to 3% slopes	These soils consist of well-drained soils such as sandy fill material placed in low, poorly drained areas. The properties and characteristics differ from place to place. For most uses onsite investigation and evaluation are needed.
PstA	Psamments, sulfidic substratum, 0 to 3% slopes	The characteristics of this soil are variable. The areas near the point of deposition are as much as 4 feet thick and have a large content of gravel and cobblestones. The material farther from the point of deposition is thin as a few inches and ranges in texture from sand to silt and clay. Due to variability of characteristics, on-site investigation is needed to determine the suitability of this soil for any use.
PsuB	Psamments, waste substratum, 0 to 8% slopes	These are reclaimed areas or areas used as sanitary landfills where 24 to 48 inches of sandy fill material has been placed over refuse. It is subject to subsidence and uneven settling. Decomposition of the refuse causes liquid and gas formation. For most uses onsite investigation and evaluation are needed.
RehB	Reaville silt loam, 2 to 6% slopes	The seasonal high water table and the depth to bedrock are the main limitations of the soil as a site for onsite septic systems, dwellings with basements, and local roads and streets.
RorAt	Rowland silt loam, 0 to 2% slopes, frequently flooded	The seasonal high water table and flooding limit the soil for many urban uses.
TrkAv	Transquaking mucky peat, 0 to 1% slopes, very frequently flooded	This soil is generally found in tidal marshes. Seasonal high water table and flooding limit the soil for many urban uses.
UdbB	Udorthents, bedrock substratum, 0 to 8% slopes	This soil includes areas occupied by parking lots, landfills, or recreation areas. Due to the variability of characteristics, on-site investigation is necessary to determine the suitability of this soil for any use.
UR	Urban land	Nearly 80 % of the surface is covered by buildings and other impervious surfaces. Onsite investigation is needed to determine if the land is limited by steep slopes, permeability or landfill materials.



The Township of EDISON

Environmental Resource Inventory

BEDROCK GEOLOGY

Physiographic Province Boundary

Category

- Passaic Formation
- Passaic Formation Gray Bed
- Passaic Formation Mudstone Facies
- Raritan Formation
- Magothy Formation

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJGS

N

November 2010

Geology

The geology of a place is important for several reasons; mainly that the physical and chemical properties of the land determine the quantity and quality of ground water which the aquifers yield. They also control how ground water recharges and moves through the aquifers, how contaminants seep into and move through soil and ground water, and where natural hazards like radon, sinkholes and seismic instability may occur. Finally, these properties establish where geologic resources such as sand, gravel, peat, clay, quarry rock and mineral ores are located. Geologic properties also determine the suitability of an area for the use of septic systems, the management of stormwater and surface runoff, and the stability of foundations for buildings, bridges, tunnels, and other structures. [1]

Edison Township is located within the Piedmont and Coastal Plain physiographic provinces of New Jersey. The Fall Line, which divides these two regions, runs in a northwest/southeast direction dividing the Township into unequal halves, on each side of which is found a different and distinctive underlying geology.

Piedmont

The Piedmont Province is an area of about 1,600 square miles and makes up approximately one-fifth of the state. It occupies all of Essex, Hudson, and Union Counties, most of Bergen Hunterdon and Somerset, and parts of Mercer, Middlesex, Morris and Passaic. It is mainly underlain by slightly folded and faulted sedimentary rocks of Triassic and Jurassic age (240 to 140 million years old) and igneous rocks of Jurassic age. Highly folded and faulted lower Paleozoic sedimentary rocks along the northwestern margin in the Clinton and the Peapack areas, as well as at several smaller areas are included as part of the Piedmont. In the Trenton and Jersey City areas, along the southern margin of the province, there are small bands of highly metamorphosed rocks ranging in age from Middle Proterozoic to Cambrian that are also included.

Coastal Plain

The Coastal Plain province is 4,677 square miles and covers Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Monmouth, Ocean and Salem Counties and parts of Mercer and Middlesex. It widens towards the southeast and consists of unconsolidated gravel, sand, silt and clay and ranges in age from the upper Lower Cretaceous to the Miocene (90

[1] Stanford, S.D. 1998, NJGS Information Circular: "Geologic Mapping in New Jersey". New Jersey Geological Survey, Trenton, NJ

to 10 million years old). From the Piedmont boundary, the plain is shaped like a trough, extending from the Raritan Bay to Trenton. Near Monmouth Junction, where the trough floor forms a saddle, it reaches an elevation of about 80 feet. East of this depression is the drainage divide between the Delaware River and the Atlantic Ocean. The streams that flow northwest to the Delaware have narrow valleys, are shorter and have a steeper gradient than the streams that flow southeast. [2]

The geology of a place can be classified into two layers: the surficial geology (which extends from a few hundred feet in depth) and bedrock geology (which is the underlying rock extending deeper into the Earth's crust). The geology map shows the various types of surficial materials and bedrock formations in Edison Township.

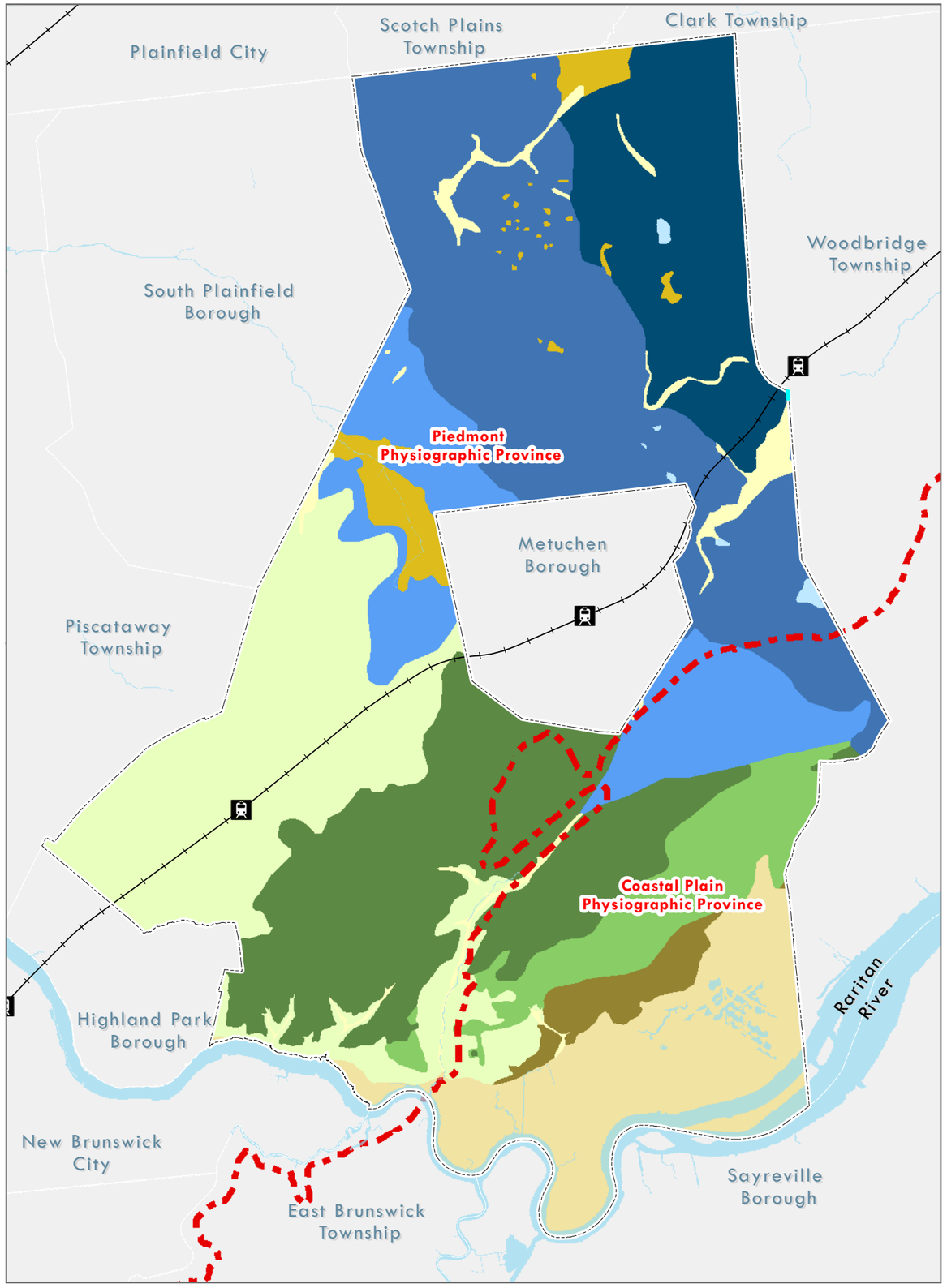
Surficial Geology

Surficial materials are the unconsolidated sediments that overlie bedrock or Coastal Plain formations, and that are the parent material for agronomic soils (capable of supporting farming). In Edison Township, they include Alluvium, moraines, glacial and estuarine deposits. These materials range from coarse gravel to clay and peat. They affect the movement of ground water from the surface into underlying bedrock and Coastal Plain aquifers, and are aquifers themselves in places. They also provide foundation support for structures, and supply sand and gravel for construction projects.

The surficial materials in Edison Township consist of:

- Alluvium
- Estuarine Deposits
- Swamp and Marsh Deposits
- Lower Stream Terrace Deposits
- Late Wisconsinan Glacial Delta Deposits
- Late Wisconsinan Glaciofluvial Plain Deposits
- Late Wisconsinan Terminal Moraine Deposits
- Rahway Till
- Weathered Shale, Mudstone & Sandstone
- Weathered Coastal Plain Formation
- Pennsauken Formation

[2] Dalton, Richard. 2003. NJGS Information Circular: "Physiographic Provinces of New Jersey". New Jersey Geological Survey, Trenton, NJ



The Township of EDISON

Environmental Resource Inventory

SURFICIAL GEOLOGY

Physiographic Province Boundary

Category

- Alluvium
- Estuarine Deposits
- Swamp and Marsh Deposits
- Lower Stream Terrace Deposits
- Late Wisconsinan Glacial Delta Deposits
- Late Wisconsinan Glaciofluvial Plain Deposits
- Late Wisconsinan Terminal Moraine Deposits
- Rahway Till
- Weathered Shale, Mudstone & Sandstone
- Weathered Coastal Plain Formation
- Pensauken Formation

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJGS

N

November 2010

Geology Name	Area (acres)	Percent	Lithological Description	Depth of Layer
Late Wisconsinan Terminal Moraine Deposits	4,298.2	21.9	Till as above forming ridge-and-Swale moraine topography	As much as 130 ft thick
Weathered Shale, Mudstone & Sandstone	3,586.3	18.3	Silty sand to silty clay with shale, mudstone, or sandstone fragments	Shale & Mudstone – as much as 10 ft; Sandstone – as much as 30 ft thick
Pennsauken Formation	3,347.6	17.1	Sand, Clayey sand, pebble gravel, minor silt, clay, and cobble gravel; sand typically includes weathered feldspar; locally iron-cemented	As much as 140 ft thick
Estuarine Deposits	2,231.9	11.4	Organic clay and silt, peat, Minor sand and gravel	As much as 100 ft thick
Rahway Till	2,066.6	10.5	Silty sand to sandy silt with pebbles and cobbles and a few boulders	As much as 60 ft thick
Late Wisconsinan Glaciofluvial Plain Deposits	1,818.6	9.3	Sand, pebble-to-cobble gravel and minor silt	As much as 80 ft thick
Weathered Coastal Plain Formation	1,096.4	5.6	Exposed sand and clay bedrock formations. Includes thin, patchy alluvium and colluviums, and pebbles left from erosion	N/A
Swamp and Marsh Deposits	410.7	2.1	Peat and organic silt, sand, and clay	As much as 10 ft thick
Alluvium	376.8	1.9	Silt, sand, gravel, clay, organic matter	As much as 20 ft thick
Lower Stream Terrace Deposits	345.2	1.8	Sand, gravel, minor silt	As much as 40 ft thick
Late Wisconsinan Glacial Delta Plain Deposits	36.1	<1.0	Sand, pebble-to-cobble gravel and minor silt	As much as 150 ft thick
Total	**19,614.4**	**100.0**		

Note: Area and Percent Area have been rounded tenth decimal
Source: NJ Geological Survey, 2006 Surficial Geology

Bedrock Geology

Bedrock formations include sedimentary rocks formed by compaction and cementation of sediments from ancient river, lake and marine deposits; igneous rocks that formed when molten rock cooled and hardened; and lastly, metamorphic rocks formed by intense heating and compressing of sedimentary, igneous and even other metamorphic rocks. Folding and faulting then deformed the rocks. The bedrock formations (which range in age from 1 billion to 200 million years old) extend to great depths in the Earth's crust. [3]

The underlying rocks of the Piedmont are of late-Triassic to early-Jurassic Age. These rocks include the Passaic, Brunswick, Lockatong and Stockton Formations and the Diabase (Traprock) intrusions that resulted from periods of volcanic activity. The geologic strata underlying the Coastal Plain are of late Cretaceous origin and consist of the Raritan and Magothy Formations. The Raritan and Magothy Formations are made of unconsolidated sand, salt and clay, and were deposited 135-65 million years ago. The Raritan and the overlying Magothy have often been regarded as one formation. In some areas the two formations are indistinguishable from each other, or the Magothy simply thins into the Raritan Formation.

The bedrock geology of Edison Township consists of the Lockatong and Passaic Formations in the Piedmont province and the Raritan Formation in the Coastal Plain province.

Passaic Formation

The formation consists of inter-bedded sequence of reddish brown, and less often purple or maroon, sandstone, siltstone, shaly siltstone, silty mudstone and/or mudstone. Shaly siltstone, silty mudstone and mudstone are fine-grained, very thin- to thin-bedded, planar- to ripple cross-laminated, locally fissile, bioturbated, and contain evaporate minerals.

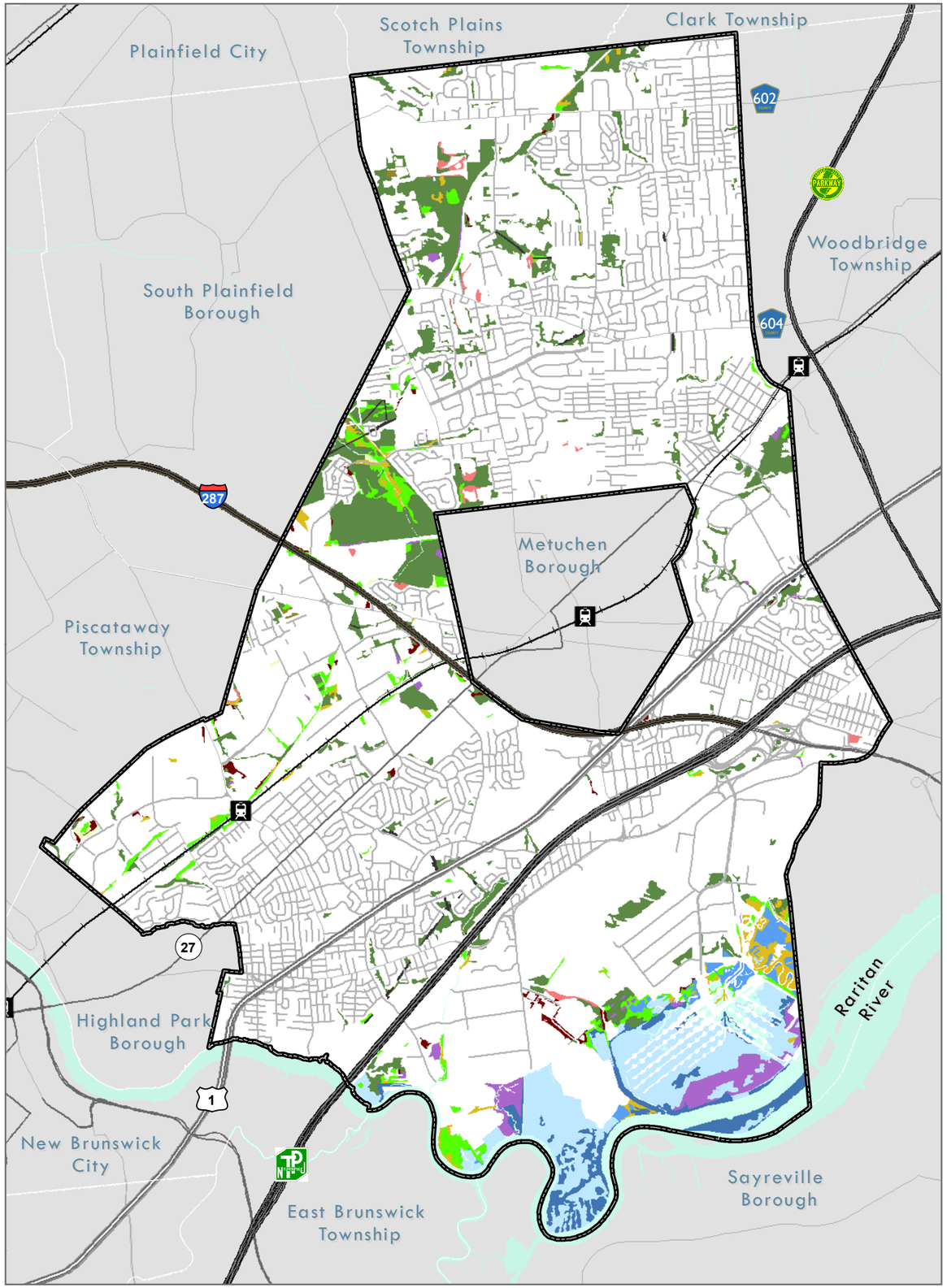
Raritan Formation

The Raritan Formation is composed of alternating and irregular beds of clay, sand and gravel, representing a wide range of depositional environments from past geologic times. The total thickness of the Raritan in the outcrop is 150 to 400 feet.

Geology Name	Area (acres)	Percent	Lithological Description
Passaic Formation	12,353	63	Siltstone and shale
Passaic - Grey Bed	480	2	Sandstone, siltstone and shale
Passaic - Mudstone Facies	894	5	Sandy mudstone
Raritan Formation	5,887	30	Clayey silt overlying quartz sand
Total	**19,614**	**100**	

Note: Area and Percent Area have been rounded to the nearest whole number
Source: NJ Geological Survey, 2007 Bedrock Geology

[3] Stanford, S.D. 1998, NJGS Information Circular: "Geologic Mapping in New Jersey". New Jersey Geological Survey, Trenton, NJ



The Township of EDISON

Environmental Resource Inventory

WETLANDS

- Open Water

Category

- Managed Wetlands in Recreation Area (Modified)
- Managed Wetlands in Maintained Green Space (Modified)
- Disturbed Wetlands (Modified)
- Coniferous Scrub/Shrub Wetlands
- Deciduous Scrub/Shrub Wetlands
- Deciduous Wooded Wetlands
- Herbaceous Wetlands
- Agricultural Wetlands (Modified)
- Phragmites Dominate Coastal Wetlands
- Phragmites Dominate Interior Wetlands
- Saline Marsh (Low & High Marsh)
- Wetland Rights-of-Way

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP

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December 2010

Wetlands

Wetlands consist of land which is either submerged or retains water at ground level for a portion of the year, includes marshes, swamps, and bogs. They cover approximately 2,918.1 acres of land in the Township as identified in the Wetlands map.

Wetland areas provide natural flood control by storing excess water and releasing it to surface waters over time. Wetlands also serve as filtration systems, removing pollutants from the water table and storing them in biomass; and they also serve as ground water recharge areas. As the total wetland area decreases and their natural functions decrease over a period of years, the overall quality and quantity of the surface water flow within the watershed is altered. Often, expensive man-made utilities are required to make up for the loss of wetlands.

A community that incorporates growth while maintaining or improving wetlands as well as wetlands function, can achieve lower flood peaks, fewer drought periods, more wildlife and wildlife habitat, and better surface water quality than comparable watersheds with fewer wetlands. Wetlands also provide recreational opportunities such as boating, hiking and bird watching.

The NJDEP Land Use Regulation Program manages wetlands permitting in the state, more information, such as that provided below, is available at the programs website: http://www.state.nj.us/dep/landuse/fww.html

Freshwater wetlands protection is governed by section 404 of the "Federal Water Pollution Control Act Amendments of 1972" as amended by the Clean Water Act of 1977". The Freshwater Wetlands Protection Act requires NJDEP to regulate virtually all activities proposed in the wetland, including cutting of vegetation, dredging, excavation or removal of soil, drainage or disturbance of the water level, filling or discharge of any materials, driving of pilings, and placing of obstructions. If you want to pursue activities in an area within 150 feet of a wetland, you may be in a transition area (sometimes called a buffer) for which you may need a NJDEP transition area waiver. A transition area is a strip of land bordering the wetlands. The width of the transition area may vary from 150 feet down to nothing, depending on the value of the particular wetland. For example, a wetland containing endangered species habitat would require a 150-foot wide transition area,

whereas a small wetland in a ditch might not require any transition area at all. Most freshwater wetlands require a 50-foot transition area.

NJDEP has developed a system for the classification of freshwater wetlands based upon criteria, which distinguish among wetlands of exceptional resource value, intermediate resource value, and ordinary resource value.

Freshwater wetlands shall be divided into three classifications based on resource value.

The Department shall consider the resource value classification of a wetland in, among other things, evaluating alternatives to the proposed regulated activity, in determining the size of the transition area, and in determining the amount and/or type of mitigation required.

A freshwater wetland of exceptional resource value (or exceptional resource value wetland) is a freshwater wetland which:

1. Discharges into FW1 or FW2 trout production waters or their tributaries (refer to surface water quality section below for definitions);
2. Is a present habitat for threatened or endangered species; or
3. Is a documented habitat for threatened or endangered species, and which remains suitable for breeding, resting, or feeding by these species during the normal period these species would use the habitat.

The Department identifies present or documented habitat for threatened or endangered species for purposes of determining exceptional resource value using the Landscape Project method, which focuses on habitat areas required to support local populations of threatened or endangered wildlife species.

A freshwater wetland of ordinary resource value (or an ordinary resource value wetland) is a freshwater wetland which does not exhibit any of the characteristics in exceptional resource values, and which is:

1. An isolated wetland, as defined at N.J.A.C. 7:7A-1.4, which:
   a. Is smaller than 5,000 square feet; and
   b. Has the uses listed below covering more than 50 percent of the area within 50 feet of the wetland boundary. In calculating the area covered by a use, the Department will only consider a use that was legally existing in that location prior to July 1, 1988, or was permitted under this chapter since that date:
      i. Lawns;
      ii. Maintained landscaping;
      iii. Impervious surfaces;
      iv. Active railroad rights-of-way; and
      v. Graveled or stoned parking/storage areas and roads;
2. A drainage ditch;
3. A swale; or
4. A detention facility created by humans in an area that was upland at the time the facility was created.

A freshwater wetland of ordinary resource value (or an ordinary resource value wetland) is any freshwater wetland not defined as exceptional or ordinary.

There are many small activities that can be pursued in a transition area under general permits (like the general permits discussed above) for activities in freshwater wetlands. In some cases the transition area's shape may be altered to allow an activity, without diminishing its total size. This is called transition area averaging.

The 100-year floodplain areas almost overlap the wetland boundaries. The wetlands absorb a significant amount of runoff into the ground during overflow and flooding events. Therefore, it is important to protect wetlands to prevent flooding and to provide protection of adjacent developed areas. Another important role of wetlands is to allow recharge of ground water aquifers. The wetlands are composed of hydric soils (soils that are saturated with water) that can be of two types - discharge hydric soils (which release ground water to the land surface), or recharge hydric soils (which allow water to percolate to ground water/aquifer). Sometimes the discharge hydric soils may also function as season dependent recharge systems.

At least 14.9% of land in Edison Township is occupied by wetlands. Within Edison Township, wetlands are located mainly along water bodies with and in the northwestern portion of the Township with few isolated wetlands elsewhere. Deciduous Wooded Wetlands (43.3%) and Phragmites Dominated Coastal Wetlands (22.0%) are the major categories of wetlands in the Township, and occupy about 65% of the total wetland area.

The following chart is a summary of wetlands within the Township broken down into twelve categories, derived from the 2007 NJDEP Land Use/Land Cover GIS data. While this data is now four years old, it is the most current data available.

Type of Wetlands	Area (acres)	Percent
Deciduous Wooded Wetlands	1,262.2	43.3
Phragmites Dominate Coastal Wetlands	642.2	22.0
Deciduous Scrub/Shrub Wetlands	250.2	8.6
Saline Marsh (Low & High Marsh)	228.3	7.8
Disturbed Wetlands (Modified)	160.1	5.5
Herbaceous Wetlands	136.6	4.7
Phragmites Dominate Interior Wetlands	88.0	3.0
Managed Wetland in Maintained Green space	52.8	1.8
Managed Wetland in Recreation Area	41.1	1.4
Wetland Rights-of-Way	36.3	1.2
Coniferous Scrub/Shrub Wetlands	12.8	0.4
Agricultural Wetlands (Modified)	7.5	0.3
Total Wetlands	**2,918.1**	**100.0**

Note: Areas and percentages rounded to the nearest tenth decimal
Source: NJDEP, 2007 Land Use Land Cover for Watershed Management Areas 07 & 09

Surface Water and Water Quality

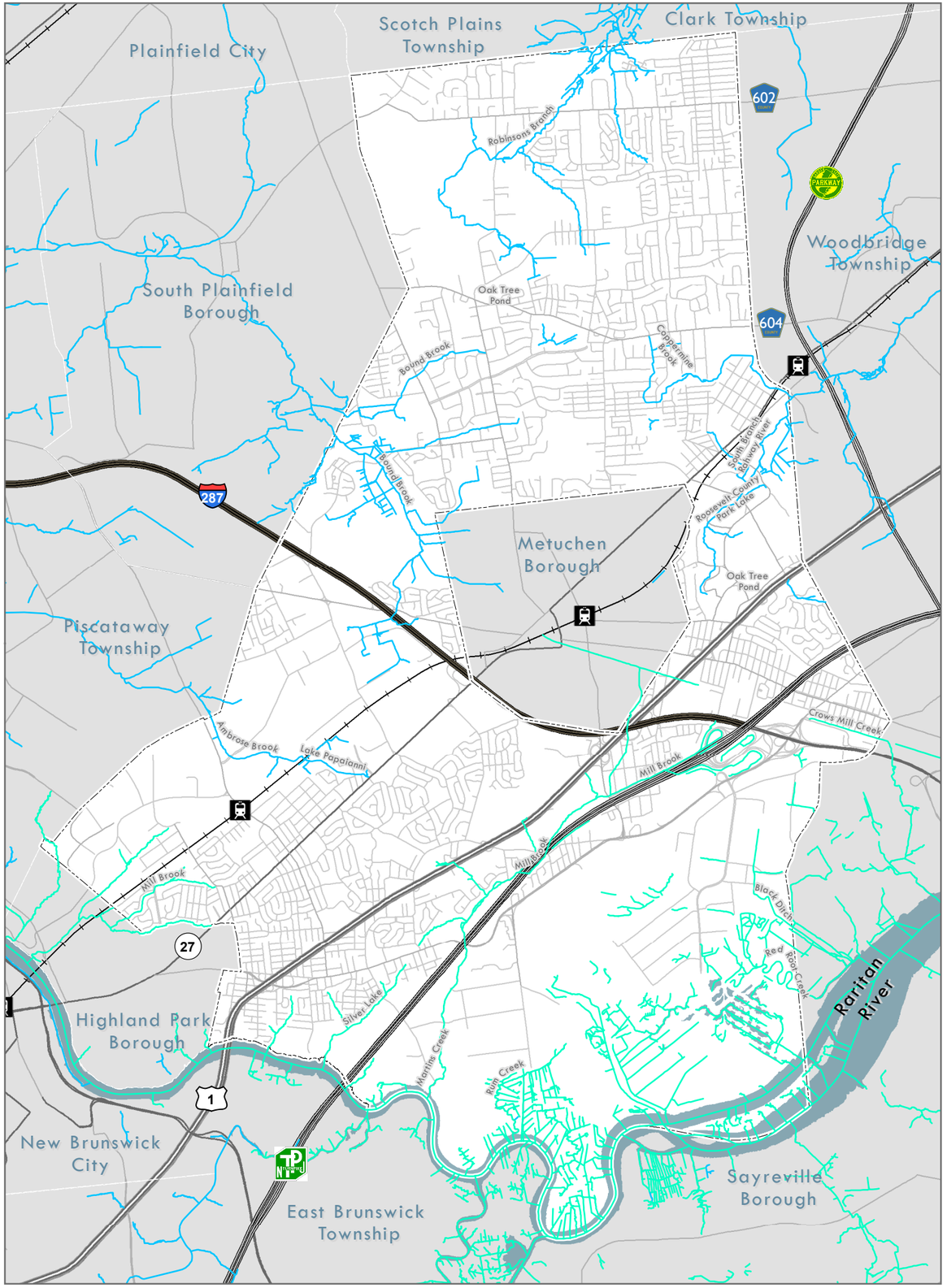
The surface water system in Edison Township is characterized by streams, ponds, lakes, and wetlands. These resources provide for:

- Surface water potable supply
- Aquifer recharge for groundwater potable supply
- Wildlife habitat
- Recreation areas
- Scenic value and beauty
- Water supplies for agriculture, commerce, and industry

Surface water quality is determined by seasonal weather conditions and precipitation patterns, the depth, width, and flow rates of streams, soil characteristics, types of vegetation, and impacts of development.

The major surface water courses and impoundments within Edison Township, along with surface water attributes are listed in the below.

FW2 = Freshwater (except Pinelands Water)
NT = Non-trout producing
SE1= Saline Estuarine Waters



The Township of EDISON

Environmental Resource Inventory

SURFACE WATER QUALITY

Open Water

Category

FW2-NT
(Freshwater; not Trout producing)

FW2-NT/SE1
(Freshwater/Estuarine Waters; not Trout Producing)

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJGS

N

November 2010

Stream Name	Surface Water Class	Anti-degradation Status	Trout Water Status	Description / Status
Ambrose Brook	FW2-NT	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water)
Black Ditch	FW2-NT/SE1	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water) & Saline Estuarine Waters
Bound Brook	FW2-NT	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water)
Coppermine Brook	FW2-NT	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water)
Crow's Mill Creek	FW2-NT/SE1	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water) & Saline Estuarine Waters
Lake Papaianni	FW2-NT	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water)
Martin's Creek	FW2-NT/SE1	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water) & Saline Estuarine Waters
Mill Brook	FW2-NT/SE1	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water) & Saline Estuarine Waters
Raritan River	FW2-NT/SE1	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water) & Saline Estuarine Waters
Red Root Creek	FW2-NT	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water)
Robinson's Branch	FW2-NT	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water)
Roosevelt County Park Lake	FW2-NT	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water)
Rum Creek	FW2-NT & FW2-NT/SE1	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water)
Silver Lake	FW2-NT/SE1	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water) & Saline Estuarine Waters
South Branch Rahway River	FW2-NT	C2 - Category two waters	NT or Non-Trout producing	Freshwater (except Pinelands Water)

Source: NJDEP, 2007 Surface Water Quality Standards Dataset

According to N. J. A. C. 7:9B - Surface Water Quality Standards, designated uses for Freshwater Category Two streams are as follows:

- Maintenance, migration and propagation of the natural and established biota;
- Primary contact recreation;
- Industrial and agricultural water supply;
- Public potable water supply after conventional filtration treatment (a series of processes including filtration, flocculation, coagulation, and sedimentation, resulting in substantial particulate removal but no consistent removal of chemical constituents) and disinfection; and
- Any other reasonable uses.

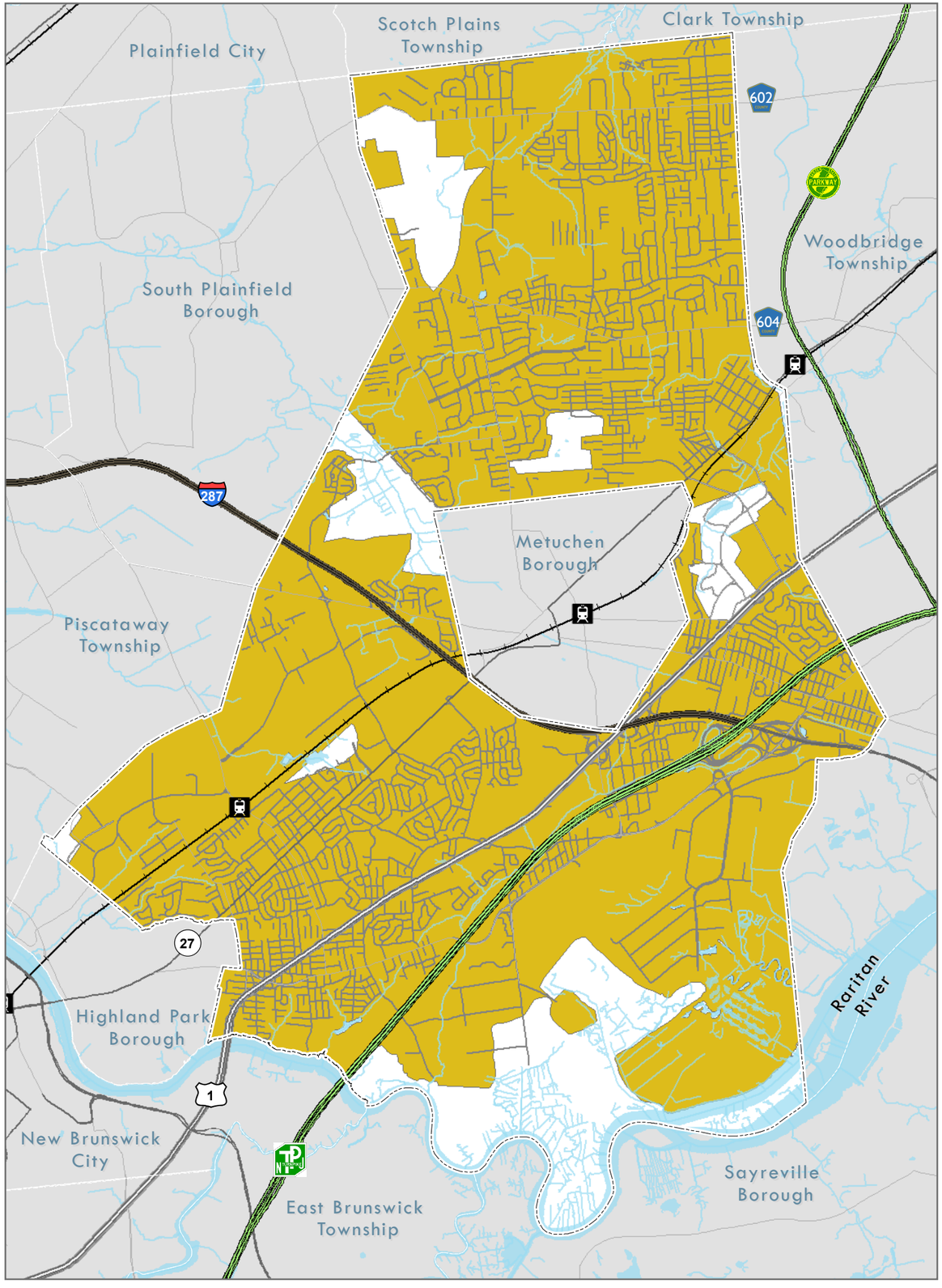
According to N. J. A. C. 7:9B - Surface Water Quality Standards, designated uses for Saline Estuarine waters are as follows:

- Shellfish harvesting in accordance with N.J.A.C. 7:12;
- Maintenance, migration and propagation of the natural and established biota;
- Primary contact recreation; and
- Any other reasonable uses.

Other Surface Water

Surface water systems also comprise of any vernal ponds, swamps and/or freshwater wetlands that accompany the stream and water impoundments. There are many small ponds throughout Edison, probably glacial in origin, as they have no inlets or outlets.

Human effects upon water quality include discharge from point sources and non-point sources and problems resulting from erosion and sedimentation.



The Township of
EDISON

Environmental Resource Inventory

SEWER SERVICE AREA

- Middlesex County Utilities Authority (Discharge to surface water, including surface water limited)
- Out of Sewer Service Area

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP

N

November 2010

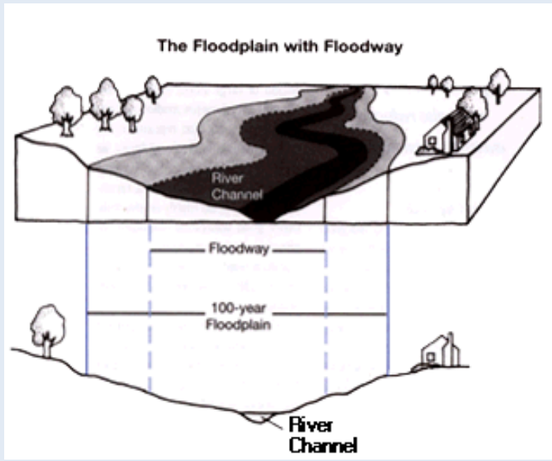
Point sources of discharge enter surface waters at specific and identifiable locations, such as industrial wastewater effluent discharge pipes, sewage treatment plant effluent pipes, stormwater runoff pipes, illegal dumping of liquids and materials from mobile sources directly into streams, sewage pumping station malfunctions resulting in bypasses, and malfunctioning septic systems flowing or discharging into streams. Their presence in Edison Township is discussed in greater detail in "NJ Pollutant Discharge Elimination System" section.

Non-point sources enter in a general manner and are difficult to identify; they include stormwater runoff carrying chemicals from agricultural activities, oils and salts from roads and parking lots, and leachate from landfill operations.

Erosion is the wearing away of soil or rock by moving water, and sedimentation is the transportation of these eroded materials in suspension and the deposition of these clays, silts, and sands in other areas. Increased development generally reduces the amount of cover vegetation and increases the amount of impervious surface, therefore lessening the infiltration of precipitation and increasing stormwater runoff and potential erosion, sedimentation, and water quality contamination. Erosion and sedimentation also result in suspended sediment that contributes to a decline in water quality by blocking sunlight, reducing photosynthesis, decreasing plant growth, and destroying bottom dwelling species' habitat.

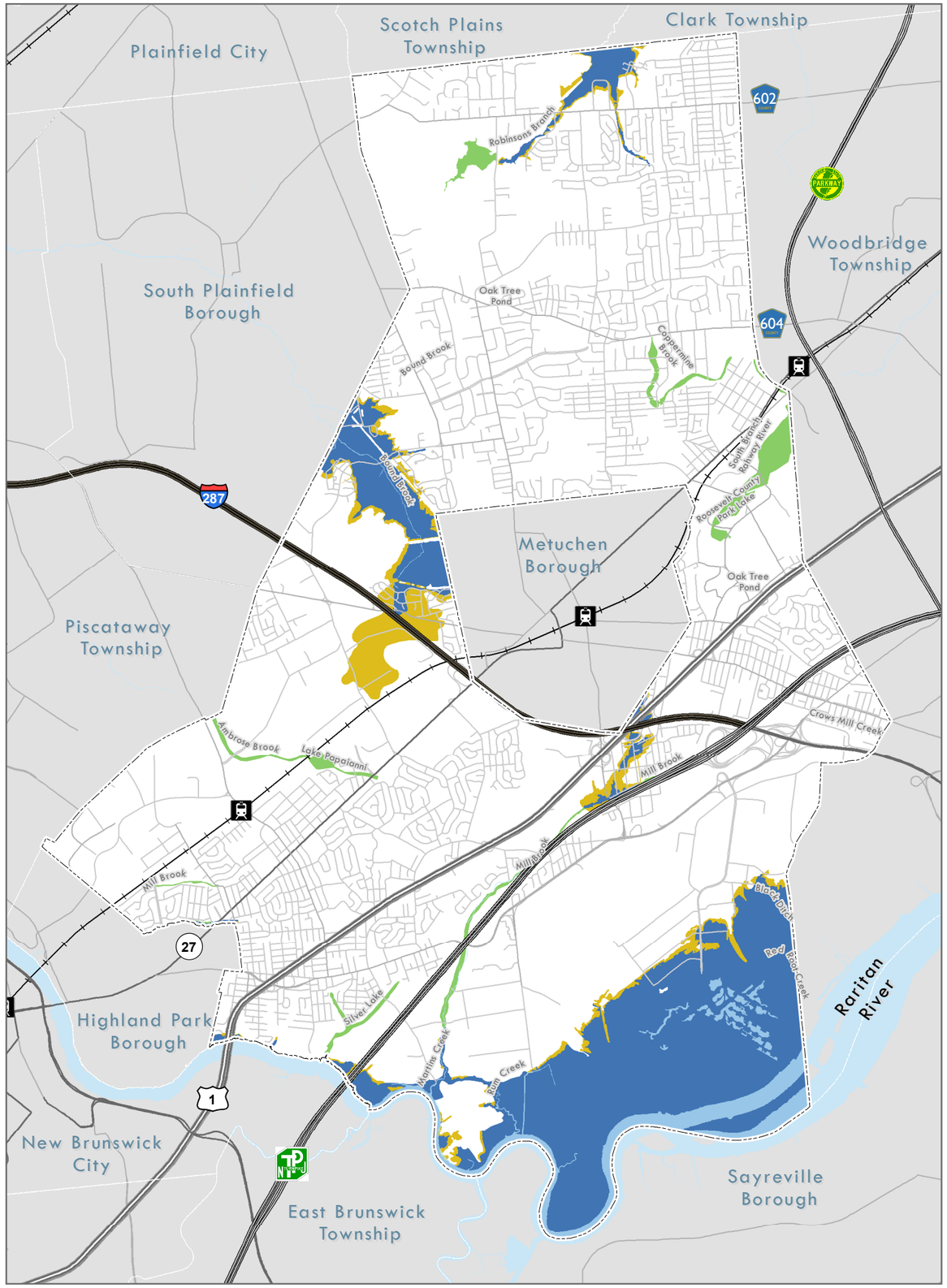
Flood Plains and Flood Hazard Areas

Floodplains are a vital part of any river or estuary ecosystem, acting as water filters and wildlife nurseries. They are important for the maintenance of water quality, providing fresh water to wetlands and backwaters while diluting salts and nutrients. Floodplains are major centers of biological life in the river and estuary ecosystem and improve the overall health of the habitat used by many species of birds, fish, and plants. They are important biologically, as they represent areas where many species reproduce and as such are important for breeding and regeneration cycles.



New Jersey regulates construction in the floodplain under the Flood Hazard Area Control Act, N.I.S.A. 58:16A-50 et seq., and its implementing rules at N.J.A.C. 7:13. The NJDEP Land Use Regulation Program manages Stream Encroachment Permitting in the state, more information, such as that provided below, is available at the programs website: http://www.state.nj.us/dep/landuse/se.html

The state regulates work in floodplains for two reasons. First, such regulation protects the person who is building from loss of life and property in case of a flood. Flooding causes an estimated $3 billion of damage in the United States every year. State regulations minimize the damage by ensuring that buildings are placed in safe areas, and are constructed to withstand high water.



The Township of EDISON

Environmental Resource Inventory

FLOODPLAINS

Open Water

FEMA ZONES

- X - Minimal to No Risk
- X500 - Minimal to No Risk
- A - High Risk
- AE - High Risk

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJGS

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The second reason to regulate building in flood plains is to protect other properties along the stream or pond from flood damage. When you build on a flood plain and the waters begin to rise, the buildings on your property displace water thus increasing the height of the rising waters and making the flooding worse everywhere along the banks. In addition, your buildings and pavement cover the natural ground surface that would have helped soak up the water. Therefore, the more buildings and pavement allowed, the higher the flood waters along that water body will rise, and the worse the flooding problems will get. Even if a building is permissible in the flood plain, regulations are necessary to ensure that it is strongly constructed so that it won't wash away in floodwaters, causing danger and damage downstream.

The flood plain is made up of two parts - the floodway and the flood fringe. The floodway is the inner area where floodwaters are deep and move fast. The floodway always includes the streambed or lakebed where the water normally flows, and usually extends to the top of the bank (if there is a defined bank) and sometimes beyond. The flood fringe is the outer area where floodwaters move more slowly, appearing more still, like a lake or pond.

A building in a floodway will block the water's flow, backing up water and causing flooding upstream to worsen. A building in a flood fringe will prevent floodwaters from spreading out, thus forcing floodwaters downstream faster and increasing downstream flooding.

100-year Floodplain

The 100-year floodplain boundary area has been established by the Federal Emergency Management Administration (FEMA) to denote floodwater impoundment areas. These areas are highly restrictive in order to avoid destruction of flood areas and the destruction of property that has been improperly located and therefore subject to flooding. The 100-year floodplain is known as the Special Flood Hazard Area (SFHA).

According to the FEMA definition, the SFHA is defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent-annual-chance flood is also referred to as the "base flood."' Flood Insurance Rate Maps (FIRMs) are maps that show different floodplains with different zone designations. These are primarily for insurance rating purposes, but the zone differentiation can be very helpful for other floodplain management purposes. Note that the Special Flood Hazard Area (SFHA) includes only A and V Zones.

Flood Insurance Zone Designations

Following are the categories and zones designated by FEMA for the purposes of flood planning and insurance:

High Risk Coastal Areas:

Zone V: Areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves. Because detailed hydraulic analyses have not been performed, no BFEs (Base Flood Elevations) or flood depths are shown. Mandatory flood insurance purchase requirements apply.

Zones VE and V1-V30: Areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action. BFEs derived from detailed hydraulic analyses are shown within these zones. Mandatory flood insurance purchase requirements apply. (Zone VE is used on new and revised maps in place of Zones V1-V30.)

High Risk Areas:

Zone A: Areas subject to inundation by the 1-percent-annual-chance flood event. Because detailed hydraulic analyses have not been performed, no BFEs or flood depths are shown. Mandatory flood insurance purchase requirements apply.

Zones AE and A1-A30: Areas subject to inundation by the 1-percent-annual-chance flood event, determined by detailed methods. BFEs are shown within these zones. Mandatory flood insurance purchase requirements apply. (Zone AE is used on new and revised maps in place of Zones A1-A30.)

Zone AH: Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. BFEs derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements apply.

Zone AO: Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average flood depths derived from detailed hydraulic analyses are shown within this zone. Mandatory flood insurance purchase requirements apply.

Zone A99: Areas subject to inundation by the 1-percent-annual-chance flood event, but which will ultimately be protected upon completion of an under-construction Federal flood protection system. These are areas of special flood hazard where enough progress has been made on the construction of a protection system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. Zone A99 may only be used when the flood protection system has reached specified statutory progress toward completion. No BFEs or flood depths are shown. Mandatory flood insurance purchase requirements apply.

Zone AR: Areas that result from the decertification of a previously accredited flood protection system that is determined to be in the process of being restored to provide base flood protection. Mandatory flood insurance purchase requirements apply.

Zones AR/AE, AR/AH, AR/AO, AR/A1-A30, AR/A: Dual flood zones that, because of the risk of flooding from other water sources that the flood protection system does not contain, will continue to be subject to flooding after the flood protection system is adequately restored. Mandatory flood insurance purchase requirements apply.

Location and acreage of various FEMA-designated flood zones within Edison Township:

Zone	Location	Area in acres	Percent of total
A	Includes floodways of: Ambrose Brook, Lake Papaianni, southern parts of Mill Brook, Silver Lake, northern parts of Martin's Creek, Crow's Mill Creek, Roosevelt County Park Lake, South Branch Rahway River, Coppermine Creek, and parts of Robinson's Branch.	246	1
AE	Includes floodways of: northern parts of Mill Creek, Bound Brook, Rum Creek, Raritan River, Red Root Creek, Black Ditch, and parts of Robinson's Branch.	2,693	14
X500	Along outer fringes of the AE Zone.	390	2
X	Remainder of the Township.	16,285	83
	Totals	**19,614**	**100**

Note: Areas and percentages rounded to the nearest whole number
Source: FEMA, Flood Data for Middlesex County, NJ

Moderate to Low Risk Areas:

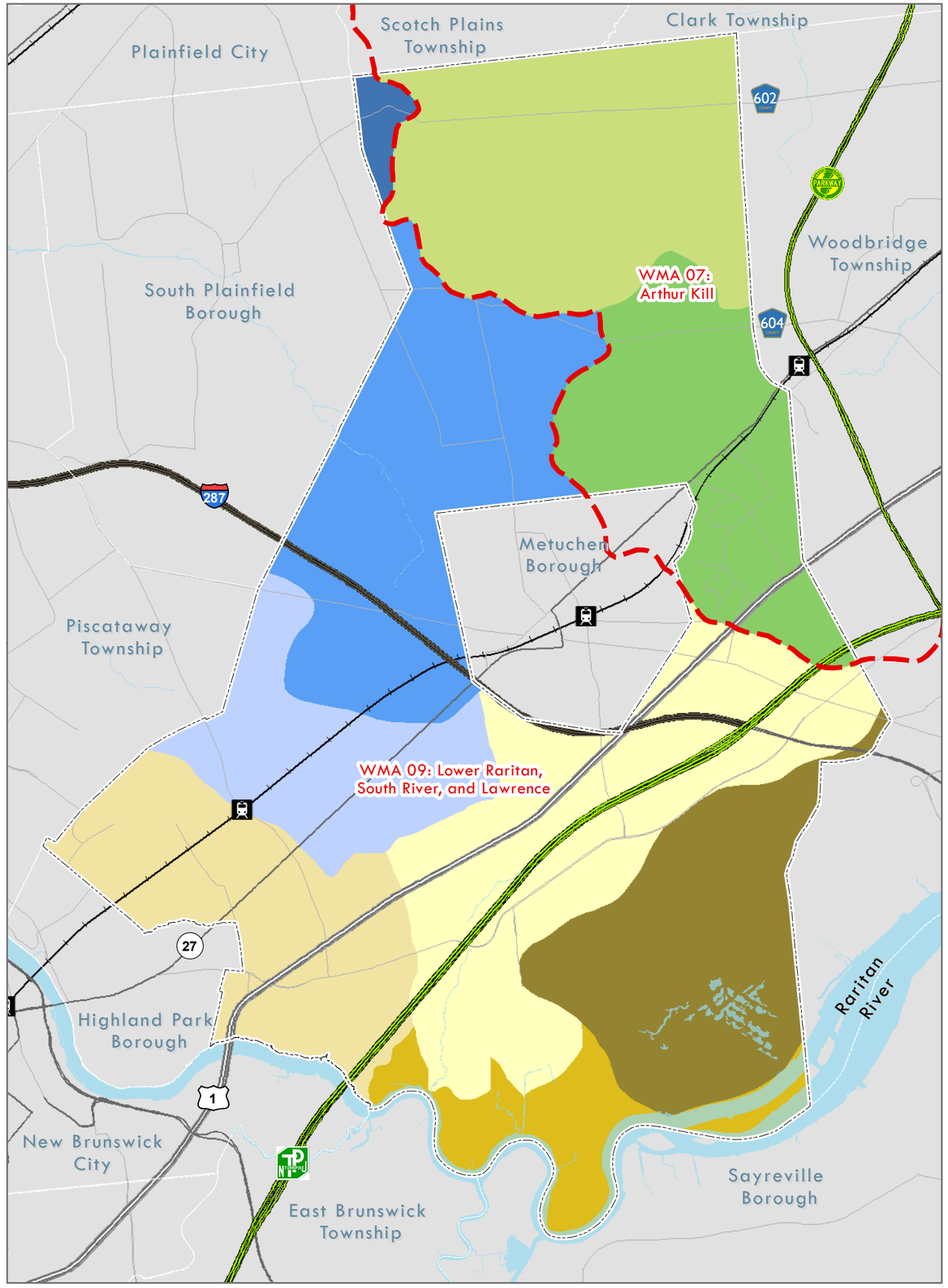
Zones B, C, and X: Areas of moderate or minimal hazard from the principal source of flood in the area. However, buildings in these zones could be flooded by severe, concentrated rainfall coupled with inadequate local drainage systems. Local stormwater drainage systems are not normally considered in the community's Flood Insurance Study (FIS). The failure of a local drainage system creates areas of high flood risk within these rate zones. Flood insurance is available in participating communities but is not required by regulation in these zones. (Zone X is used on new and revised maps in place of Zones B and C.)

Undetermined Risk Areas:

Zone D: Unstudied areas where flood hazards are undetermined, but where flooding may be possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

Several areas of Edison Township are located in what the Federal Emergency Management Agency (FEMA) considers to be a flood hazard area. The floodplain in the Township has similar locations as wetlands. Thus, the floodplain in combination with the wetlands provides additional open space areas within the Township.

Watershed Management Areas, Watersheds and Sub-watersheds



The Township of EDISON

Environmental Resource Inventory

WATERSHED MANAGEMENT AREAS

- Watershed Management Areas
- Open Water

WMA 07

- Rahway River South Branch
- Robinson's Brook / Rahway River (above Lake Avenue)

WMA 09

- Mill Brook / Martin's Creek
- Raritan River Lower (Lawrence Brook to Mile Run)
- Raritan River Lower (below Lawrence Brook)
- Red Root Creek / Crow's Mill Creek
- Spring Lake Fork of Bound Brook
- South Fork of Bound Brook
- Ambrose Brook (above/including Lake Nelson)

1 in = 5,000 feet

Feet
0 2,500 5,000 10,000

Data Source: NJDEP, NJGS

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A watershed is an area that drains into a common waterway, such as a stream, lake, estuary, wetland, or, ultimately, the ocean. The watershed includes both the waterway itself and the entire land area that drains into it. Geographical features such as hills and slopes separate distinct watershed systems. Watershed Management Areas (WMAs) are the regulatory units of NJDEP's Division of Watershed Management for categorizing, managing and protecting watersheds throughout the State. Edison Township is divided into two primary WMAs, the Lower Raritan River Drainage (WMA 9) and the Arthur Kill River Drainage (WMA7).

Arthur Kill River Drainage Watershed Management Area

Watershed Management Area 7 includes large portions of Essex, Union and Middlesex Counties. The Arthur Kill River Drainage WMA (about 179 square miles in area) includes large portions of Essex, Union and Middlesex Counties. The WMA is surrounded by the Lower Passaic and Hackensack to the north, Upper Passaic to the west, and Lower Raritan to the south. Approximately 83% of land area in Edison Township falls within the limits of this WMA.

The mainstem of the Rahway River is 24 miles long, flowing from Union into the Arthur Kill near Linden and is tidal from the Pennsylvania Railroad Bridge at Rahway down to the mouth. Major tributaries include the East Branch Rahway River, Woodbridge River and Robinson's Branch and major impoundments are the Middlesex Reservoir, Orange Reservoir, Lower and Upper Echo Lakes and Diamond Mill Pond. The Elizabeth River is 11 miles long, much of it channelized for flood control purposes. Land uses in the Rahway and Elizabeth Watersheds are principally residential, commercial and industrial. There are 50 New Jersey Pollutant Discharge Elimination System (NJPDES) permitted discharges and 12 biological monitoring stations in these watersheds.

The watersheds in Arthur Kill drainage area are the Rahway River/ Woodbridge Creek, Elizabeth River, Newark bay/Kill Van Kull/Upper New York Bay, Morses Creek/Piles Creek watersheds. The only major watershed of this WMA within Edison Township is the Rahway River/Woodbridge Creek watersheds. This watershed covers only 28% of the Township. The major rivers and creeks in the Township flowing through this watershed include: South Branch of Rahway River, Robinson's Brook and Coppermine Creek. Arthur Kill River flows along the eastern edge of this watershed and outside the Township. This watershed is located in the northeastern and east-central parts of the Township.

Each of these watersheds is further divided into sub-watersheds. A sub-watershed is a smaller drainage basin of a local stream that eventually drains to a central point of the larger watershed. The Rahway River/Woodbridge Creek Watershed has two sub-watersheds within Woodbridge Township. These are:

- Rahway River South Branch (12% of the Township)
- Robinson's Brook, Rahway River, above Lake Ave (16%)

The Lower Raritan River Drainage Watershed Management Area

The Lower Raritan River Drainage WMA, about 352 square miles in area, includes watersheds draining into the lower portion of the Raritan River, South River, and Lawrence Brook. Located in Central New Jersey, mostly in Middlesex, Somerset and Monmouth counties, the WMA is surrounded by the Upper Passaic to the north, the Arthur Kill and Monmouth watersheds to the east, the Millstone to the southwest and the North & South Branch to the west. The major waterways in the Lower Raritan River watershed management area include Mainstem Raritan River, Green Brook, South River, Lawrence Brook, and Manalapan Brook.

The Mainstem Raritan River begins at the confluence of the North and South branches to the Raritan Bay, north of Sandy Hook. It is 31 miles long and drains parts of Somerset, Union, Middlesex and Monmouth Counties before emptying into the Raritan Bay. The major highways within the Lower Raritan River watershed management area include the NJ Turnpike, US Routes 1 & 9, and Interstate 287. It is a densely populated drainage area, consisting of primarily urban and suburban land uses, with some industrial and commercial centers. There are two low dams in this river, Fieldsville Dam and Calco Dam. The watershed has more than 70 NJPDES permitted dischargers and 29 biological monitoring stations. The southeastern portion of the Township lies within the Lower Raritan River WMA. Raritan River is the only major waterway, and it flows along the southern edge of Township.

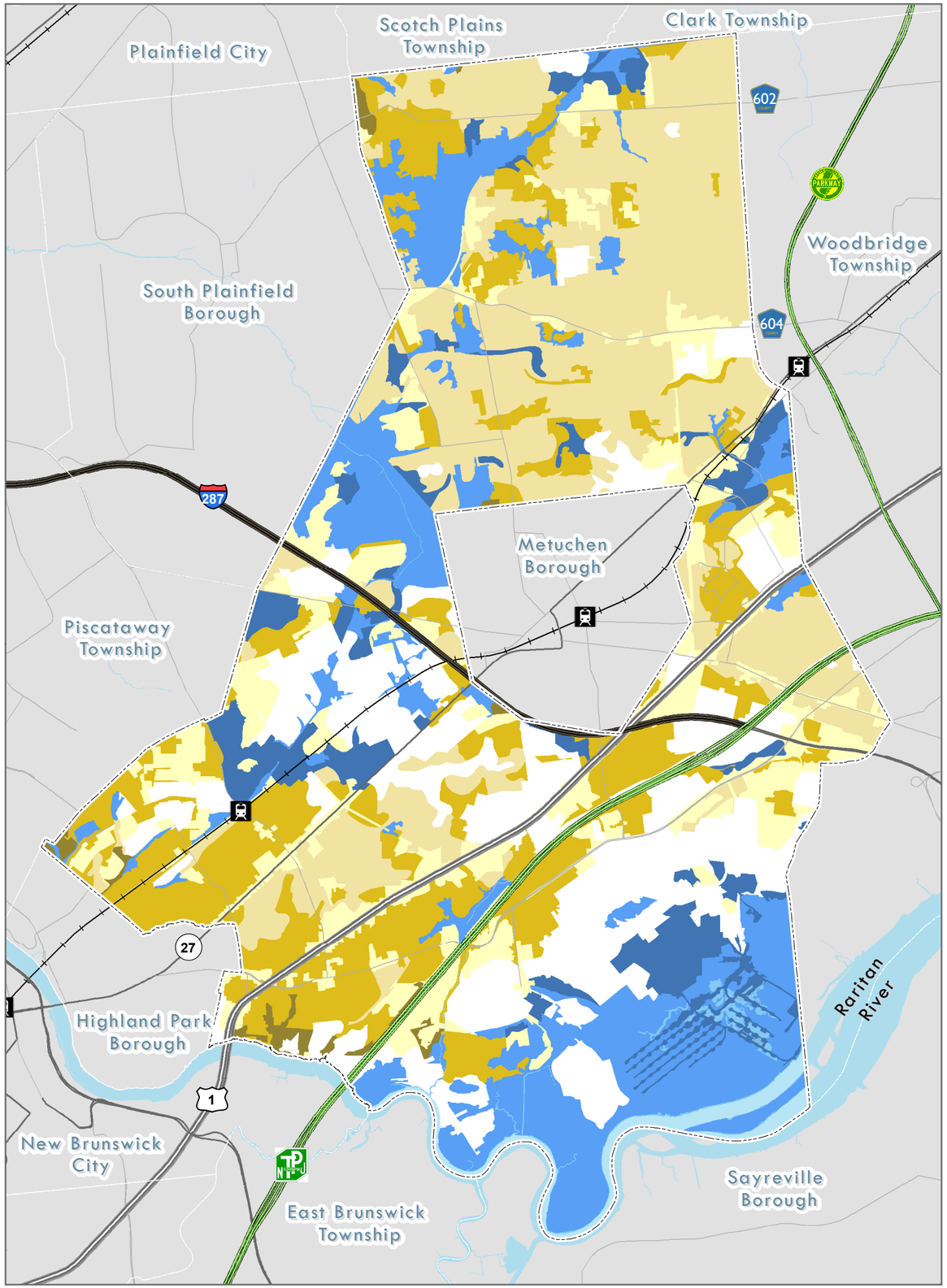
The watersheds in Lower Raritan River drainage area are the Mainstem Raritan River, South River, Lawrence Brook, Manalapan River, and Matchaponix Brook watersheds. The two watersheds of this WMA within Edison Township are Lower Raritan River (Lawrence to Millstone) Watershed and the Lower Raritan River (Below Lawrence) Watershed. The Lower Raritan River (Lawrence to Millstone) Watershed runs along the eastern municipal boundary. The Lower Raritan River (Below Lawrence) watershed is located in the southern tip of the Township. The Lower Raritan River watershed covers about 72% of the land area. These watersheds are further divided into seven sub-watersheds:

- Spring Lake Ford of Bound Brook (<1% of the Township)
- South Fork of Bound Brook (16%)
- Ambrose Brook (above/including Lake Nelson (8%)
- Lower Raritan River, Lawrence Brook to Mile Run (12%)
- Mill Brook / Martin's Creek (18%)
- Lower Raritan River below Lawrence Brook (6%)
- Red Root/Crows Mill Creek (12%)

Watershed Management Areas, Watersheds and Sub-Watersheds				
			Area (acres)	Percent Total
Watershed Management Area 7: Newark Bay, Arthur kill, Kill Van Kull, Upper New York Harbor, Elizabeth River, Morses Creek, Rahway River, Woodbridge Creek Watershed Management Area				
	Rahway River / Woodbridge Creek Watershed:			
	Sub-watersheds:	Rahway River South Branch	2,278.4	12
		Robinson's Brook, Rahway River (above Lake Ave)	3,116.9	16
		Total	**5,395.3**	**28**
Watershed Management Area 9: Raritan River Mainstream, Lawrence Brook, South River, Manalapan Brook, Matchaponix Brook, Green Brook, Middle Brook, D & R Canal (lower part) Watershed Management Area				
	Lower Raritan River (Lawrence to Millstone) Watershed			
	Sub-watersheds:	Spring Lake Ford of Bound Brook	169.7	<1
		South Fork of Bound Brook	3,094.9	16
		Ambrose Brook (above/including Lake Nelson	1,626.7	8
		Lower Raritan River (Lawrence Brook to Mile Run)	2,308.6	12
		Total	**7,199.9**	**36**
	Lower Raritan River (Below Lawrence) Watershed			
	Sub-watersheds:	Mill Brook / Martin's Creek	3,511.3	18
		Lower Raritan River (below Lawrence Brook)	1,136.8	6
		Red Root Creek / Crows Mill Creek	2,371.0	12
		Total	**7,019.1**	**36**
		Total of WMA 9	**14,219.0**	**72**
	Total of Watersheds	**19,614.3**	**100**	

Source: NJDEP, 2006 Subwatershed Management Areas 07 & 09 datasets

Ground Water Recharge Areas



The Township of EDISON

Environmental Resource Inventory

GROUNDWATER RECHARGE

- 15 Inches/Yr and Above
- 11 - 14 Inches/Yr
- 9 - 10 Inches/Yr
- 1 - 8 Inches/Yr
- 0 Inches/Yr
- Hydric Soils
- Wetlands
- Area of No Recharge Calculation

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJMC, NJDEP

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Ground water recharge is defined as the natural process of infiltration and percolation of rainwater from land areas or streams through permeable soils into water-holding rocks or unconsolidated materials (such as sands and gravels) that provide underground storage in saturated zones known as ground water. Where the ground water can yield good water supplies to wells, it is known as an aquifer.

The Ground Water Recharge Map in this ERI is an estimation of ground water recharge for Middlesex County using the NJGS methodology from NJ Geological Survey Report GSR-32 "A Method for Evaluation of Ground-Water-Recharge Areas in New Jersey." Land-use/land-cover, soil and municipality-based climatic data were combined and used to produce an estimate of ground-water recharge in inches/year, using average annual precipitation values. Recharge was then ranked by volume (billions of gallons/year) using natural breaks in the percentage of total volume.

Most areas (unless composed of solid rock or covered by development) allow a certain percentage of total precipitation to reach the water table (the upper layer of a ground water unit or aquifer). In general, Edison Township has adequate recharge potential, in the sense that at least 57% of the land has a recharge potential of 1 inch per year or above. Within this proportion, at least 43% of its land has a recharge potential of 9 to 14 inches per year, with approximately 25% of the Township composed of land with a recharge potential of 9 to 10 inches per year (County Rank C). Approximately 19% of Township land has 0 inches per year of recharge, and about 23% percentage of land is composed of wetlands or hydric soils

that generally have very limited recharge, if any. The following table shows the area of land in each recharge range:

County Rank	Range of Recharge Rate	Acres	Percent
A	15 in/yr and above	158.6	0.8
B	11 to 14 in/yr	3,457.0	17.9
C	9 to 10 in/yr	4,883.7	25.3
D	1 to 8 in/yr	2,689.3	13.9
E	0 in/yr	3,613.2	18.7
L	Hydric soils	1,300.1	6.7
W	Wetlands	3,212.8	16.6
X	No Calculations	9.6	>0.1
	Total Area	**19,324.3**	**100.0**

Note: Area and percent area have been rounded off to the nearest tenth decimal. Total Area does not equal19,614.4 because parts of the Raritan River are omitted from this GIS dataset.

Source: NJ Geological Survey, Groundwater Recharge Middlesex County (2004)

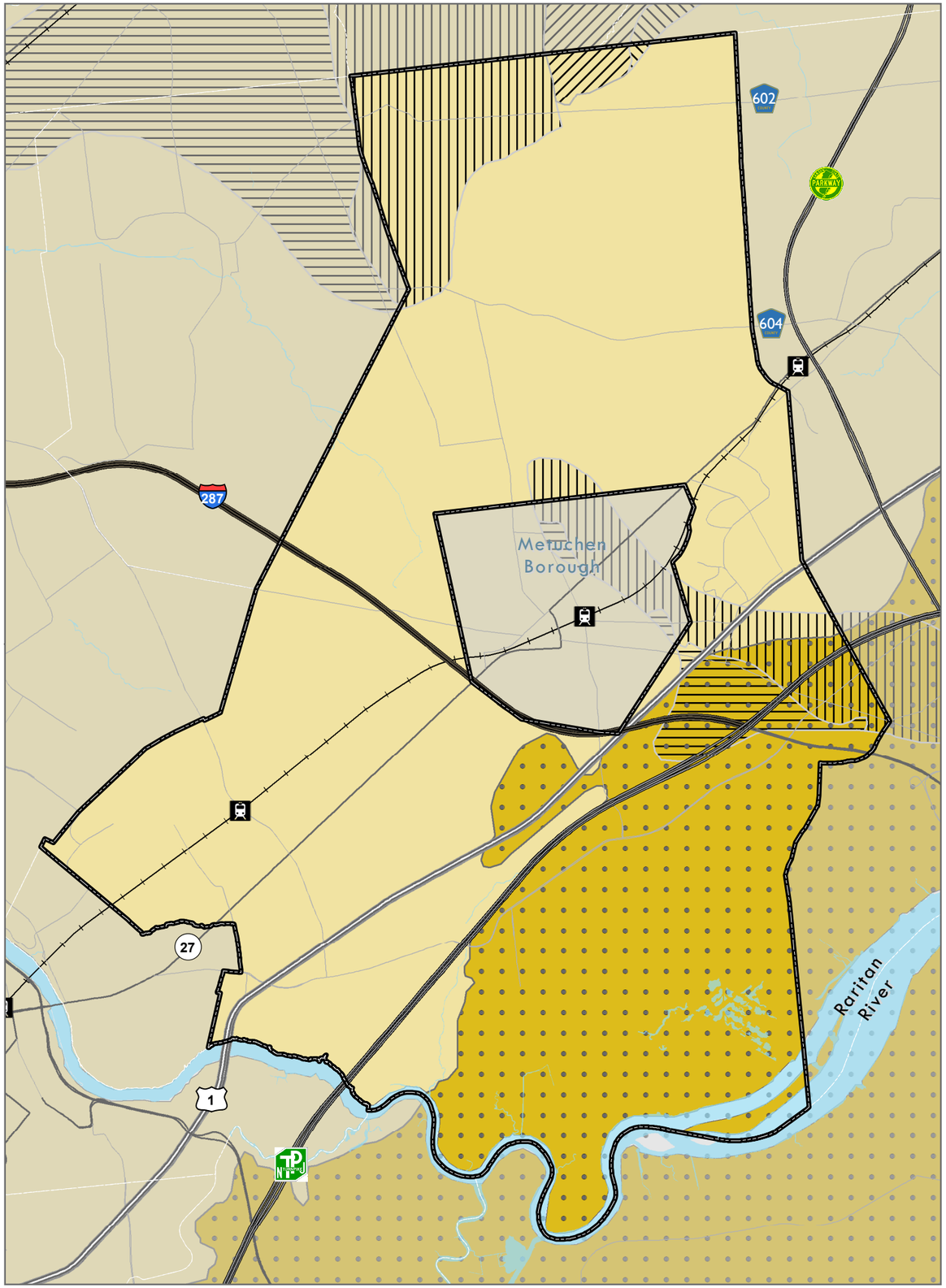
A major contributing factor in the amount of ground water recharge is the type of soils found in the area. The following table shows the series of soils found in Edison Township:

County Rank	Range of Recharge Rate	Soil Series' included
A	15 in/yr and above	Dunellen Urban, Dunellen Variant, Nixon Variant, Klinesville, Sand and Gravel Pits, Sassafras, Boonton Urban
B	11 to 14 in/yr	Boonton, Boonton Urban Land, Clay Pits, Dunellen Urban, Dunellen Variant, Haledon, Haledon Urban, Haledon Variant, Keyport, Klinesville, Klinesville Urban, Nixon, Nixon Urban, Nixon Variant, Rowland, Sand and Gravel Pits, Sassafras
C	9 to 10 in/yr	Boonton, Boonton Urban, Clay Pits, Dunellen Variant-Urban, Haledon, Haledon Urban, Haledon Variant, Lansdowne, Lansdowne Urban, Lansdowne Variant, Nixon Variant-Urban, Reaville, Rowland
D	1 to 8 in/yr	Boonton, Boonton Urban, Clay Pits, Dunellen Urban, Dunellen Variant, Haledon, Haledon Urban, Klej, Klinesville, Klinesville Urban, Rowland, Lakehurst, Lansdowne, Lansdowne Urban, Lansdowne Variant, Nixon, Nixon Urban, Nixon Variant, Reaville, Sand and Gravel Pits,
E	0 in/yr	Boonton, Boonton Urban, Klinesville, Klinesville Urban, Psamments, Reaville Urban, Udorthents, Urban Land
L	Hydric soils	Atsion, Elkton, Fallsington, Fallsington Variant, Manahawkin, Mullica, Parsippany, Parsippany Variant, Sulfaquents-Sulfihemists
W	Wetlands and Open Waters	Atsion, Boonton, Boonton Urban, Dunellen Variant, Fallsington, Haledon, Haledon Urban, Haledon Variant, Klej, Klinesville, Klinesville Urban, Lansdowne, Manahawkin, Mullica, Nixon, Nixon Variant, Parsippany, Parsippany Variant, Psamments, Reaville, Rowland, Sand and Gravel Pits, Sassafras, Sulfaquents-Sulfihemists, Urban Land, Water

Source: NJ Geological Survey, Groundwater Recharge Middlesex County (2004)

The quality of ground water recharged to the water table depends largely on the nature of the overlying land use. Areas with significant concentrations of septic systems, urban land or active agriculture are known to be more prone to contamination of ground water recharge. This also applies to those Known Contaminated Sites or sites on the Site Remediation Program (SRP) Comprehensive Site List where ground water contamination has been identified. Where ground water contamination has been verified, New Jersey has a system for designating Classification Exception Areas (CEA), as institutional controls in geographically defined areas within which the New Jersey Ground Water Quality Standards (GWQS) for specific contaminants have been exceeded.

Aquifers



The Township of EDISON

Environmental Resource Inventory

AQUIFERS

Open Water

Sole Source Aquifer

Coastal Plain

Surface Aquifer

Lake-bottom Sediment

Morainic Deposits

Sand and Gravel

Till

Bedrock Aquifer

Brunswick aquifer

Potomac-Raritan-Magothy aquifer system

1 in = 5,000 feet

Feet

0 2,500 5,000 10,000

Data Source: NJDEP, NJGS

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Ground water is water below land surface that is stored in the cracks and spaces in rock, sand and gravel formations. Precipitation to the land surface can become ground water if it infiltrates through the soils to the saturated area -a process known as ground water recharge. Ground water eventually makes its way back to the surface and provides water to springs, streams, ponds and lakes. In natural areas this ground water is the only flow in a stream during dry periods.

An aquifer is a ground water formation that can provide economically useful quantities of water to a pumping well – whether for a single home, a business, a farm or a municipality. Note that all aquifers contain ground water, but not all ground water is in aquifers! For this reason, it is important to know what portion of total ground water recharge reaches aquifers and is available for human use. The rate of recharge is not the same for all aquifers, which must be considered when pumping water from a well. Pumping too much water too fast draws down the water in the aquifer and causes a well to yield less and less water and eventually run dry. In addition, excessive human uses can damage the surface waters to which the ground water naturally flows, drying up streams during droughts.

The aquifers of New Jersey are classified as either consolidated (rock formations, also known as bedrock) or unconsolidated (sand and gravel) aquifers. Consolidated aquifers contain ground water in fractures and sometimes in pore spaces, while unconsolidated aquifers contain ground water primarily in the pore spaces between sand and gravel particles. The bedrock aquifers in New Jersey include fractured-rock aquifers of the Valley and Ridge, Highlands, and Piedmont physiographic provinces. The Piedmont province included several types of rock formations, including shale, sandstone, basalt and diabase such as the Sourland Mountains. Unconsolidated aquifers include the sand aquifers of the Coastal Plain physiographic province and the aquifers of glacial sediment exceeding 50 feet thickness in northern New Jersey. Where aquifer formations are at the land surface with no confining layer over them, they are known as surficial aquifers. Where an aquifer is overlain by a confining layer, it is known as a confined aquifer. The water in it may be under pressure and could rise up through a well all the way above the land surface (e.g.: Artesian well). For instance, the Potomac-Raritan-Magothy Aquifers are a series of Coastal Plain aquifers with confining layers in between.

The aquifers are also ranked by their yield rates or the gallons per minute that can be expected from wells in each aquifer. The ranking consists of a scale from A to E, as follows: A - greater than 500 gallons per minute; B - 251 to 500 gallons per minute; C - 101 to 250 gallons per minute; D - 25 to 100 gallons per minute; and E – less than 25 gallons per minute.

Bedrock Aquifers

The aquifers in Edison Township are split between the Coastal Plain province and the Piedmont province. The aquifers are distinguished by the types of materials, porosity, chemical and physical composition, and resultantly, the quantity and quality of water they yield. The physical and chemical descriptions and yield rates of the different aquifers systems, and their component formations, found in Edison Township are as below:

Aquifer Name	Aquifer Rank	Well Yield (gallons/ minute)	Area in acres	Percent
Brunswick Aquifer	C	101 to 250	13,717	70
Potomac-Raritan-Magothy	A	> 500	5,964	30
		Totals	**19,681**	**100**

Note: Area and percent area have been rounded off to the nearest whole number.

Source: NJ Geological Survey, Bedrock Aquifers (1998)

Brunswick Aquifer: With an aquifer rank of "C" and an average yield of 101 to 250 gallons per minute, this aquifer is composed of sandstone, siltstone, and shale. The water from this aquifer is normally fresh, slightly alkaline, non-corrosive and hard, containing calcium-bicarbonate and sub-ordinate calcium-sulfate waters that are associated with high total dissolved solids. This system covers about 70% of the Township.

Potomac-Raritan-Magothy aquifer system: The Potomac-Raritan-Magothy aquifer system has a Middlesex county rank of "A" and an average yield of more than 500 gallons per minute per well. The aquifer system is comprised of inter-bedded sand, gravel, silt and clay separated into lower, middle and upper aquifers. It includes the Raritan confining unit composed of inter-bedded sand, silt and clay. The total thickness of the Raritan in the outcrop area is 150 to 400 feet. Water is fresh, moderately hard with a near-neutral pH. Elevated iron and manganese are common. Calcium and magnesium levels decrease and sodium and potassium levels generally increase towards the southeast. Calcium-bicarbonate type waters dominate. This system covers about 30% of the Township.

Surficial Aquifers

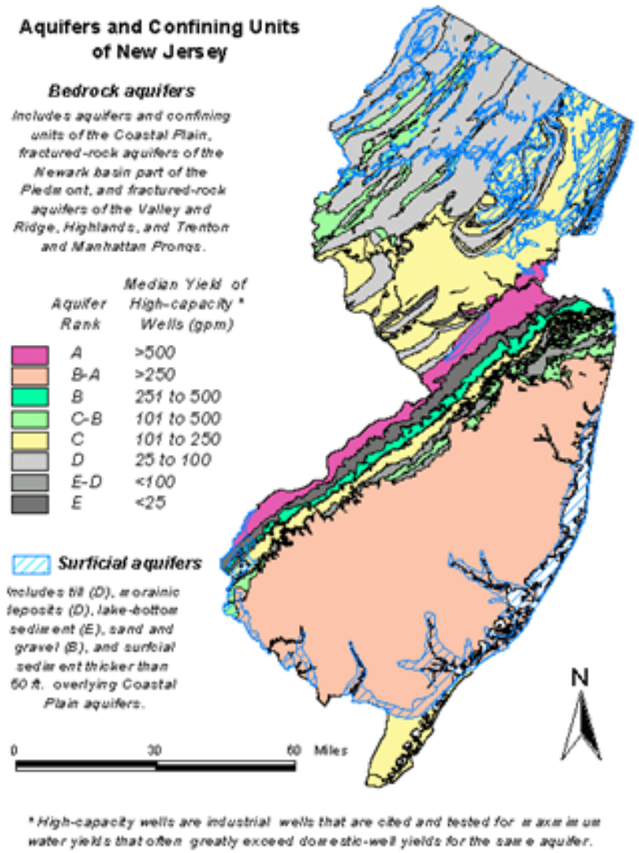
Surficial Aquifers include glacial sediment exceeding 50 feet thickness in northern New Jersey, and surficial sediment thicker than 50 feet overlying Coastal Plain aquifers and confining units.

Aquifer Name	Aquifer Rank	Well Yield (gallons/ minute)	Area in acres	Percent
Lake-bottom Sediment	E	<25	123	6
Morainic Deposits	D	25 to 100	1,677	75
Sand and Gravel	B	250 to 500	423	19
Till	D	25 to 100	11	<1
		Totals	**2,234**	**100**

Note: Area and percent area have been rounded off to the nearest whole number.

Source: NJ Geological Survey, Surficial Aquifers (1998)

Map Showing Aquifers of New Jersey:

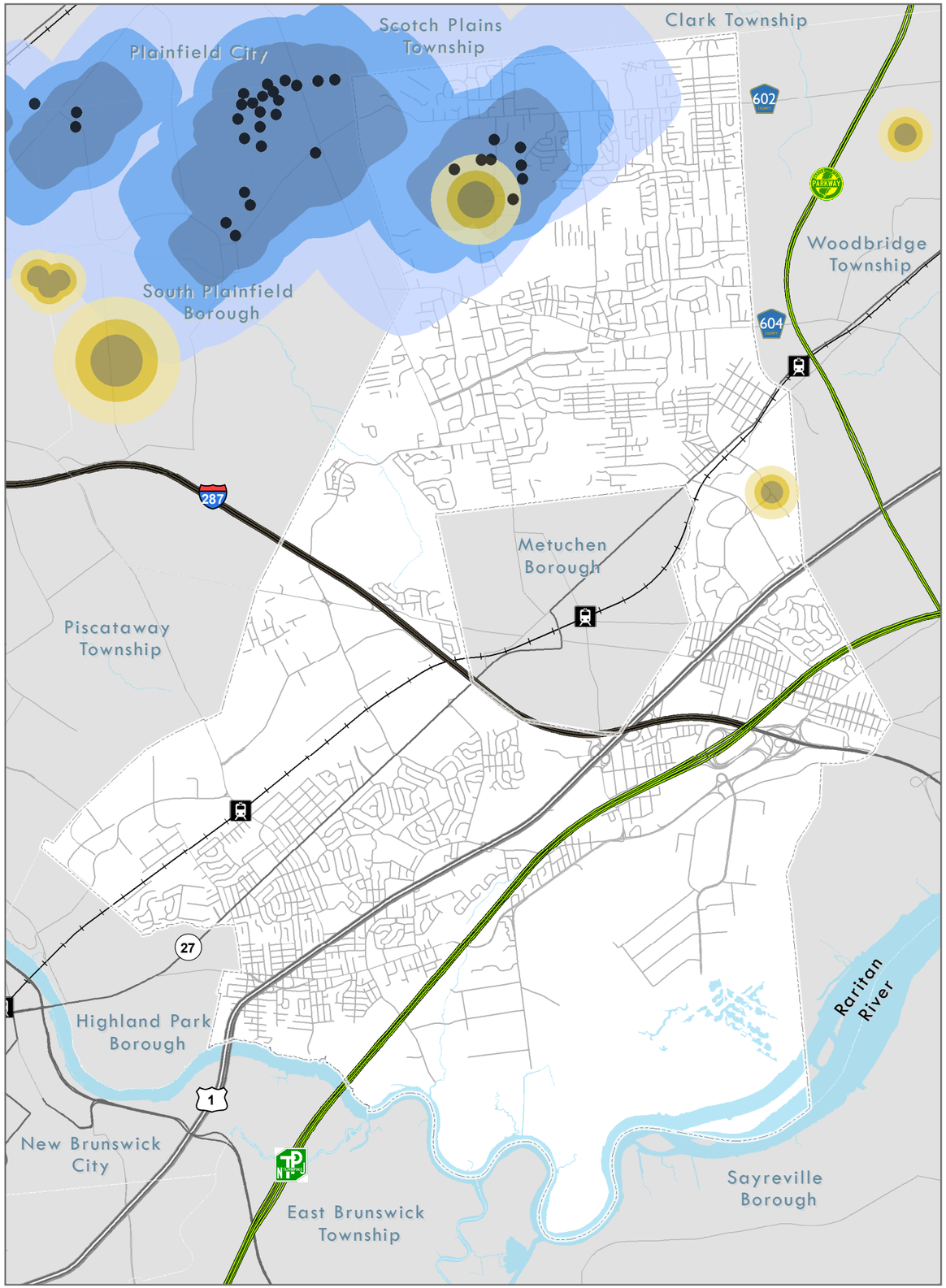


Sole-Source Aquifers

Sole-source aquifers (SSA) are those aquifers that contribute more than 50% of the drinking water to a specific area, for which the water would be impossible to replace, were the aquifer to be contaminated. SSAs are defined with guidelines set forth by the U.S. Environmental Protection Agency (USEPA) as authorized in section 1424(e) of the Safe Drinking Water act of 1974. Any federally-funded project in an area that could affect ground-water in a sole-source aquifer must be reviewed by the USEPA. This 'project review area' includes the aquifer's 'recharge zone' and it's 'stream-flow source zone'. The recharge zone is the area through which water recharges the aquifer. The source zone is the upstream area that contributes recharge water to the aquifer. Seven sole-source aquifers are defined in New Jersey and their project review areas cover most of the state. The sole source aquifer program is a federal program administered by the Environmental Protection Agency under the Safe Drinking Water Act.

Edison Township lies partially within the Coastal Plain SSA. Coastal Plain SSA is formally known as the 'New Jersey Coastal Plain Sole Source Aquifer system.' (Notice of approval was published in the Federal Register, vol. 53, no. 122, 6/24/88, pp. 23791 – 23794). The recharge zone is defined as the New Jersey Coastal Plain physiographic province. Its stream-flow source zone includes all upstream parts of the Delaware River watershed in New Jersey, Delaware, Pennsylvania and New York. USEPA's project review area includes the recharge zone and that part of the streamflow-source zone that lies within two miles of the mainstem Delaware River. The center line of the Delaware River (corresponding to the New Jersey- Pennsylvania State Boundary) was used for generating the two-mile buffer for the purposes of this coverage. An estimated 5,884 acres of the Township land (approx. 30%) are situated within the Coastal Plain SSA.

Public Community Water Supply Wells and Wellhead Protection Areas



The Township of EDISON

Environmental Resource Inventory

WELLHEAD PROTECTION AREAS

Public Community Water Supply Wells

Public Community Wellhead Protection Areas

TIER

1 (2-year)

2 (5-year)

3 (12-year)

Public Non-Community Wellhead Protection Areas

TIER

1 (2-year)

2 (5-year)

3 (12-year)

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJGS

N

November 2010

According to the NJDEP, "A Well Head Protection Area (WHPA) in New Jersey is a map area calculated around a Public Community Water Supply (PCWS) well that delineates the horizontal extent of ground water captured by a well pumping at a specific rate over a two, five, and twelve-year tiers for unconfined wells. The tiers are defined as the travel time taken for water to reach the well that the protection area marks, and are classified into 2-year, 5-year and 12-year boundaries demarcated around the well.

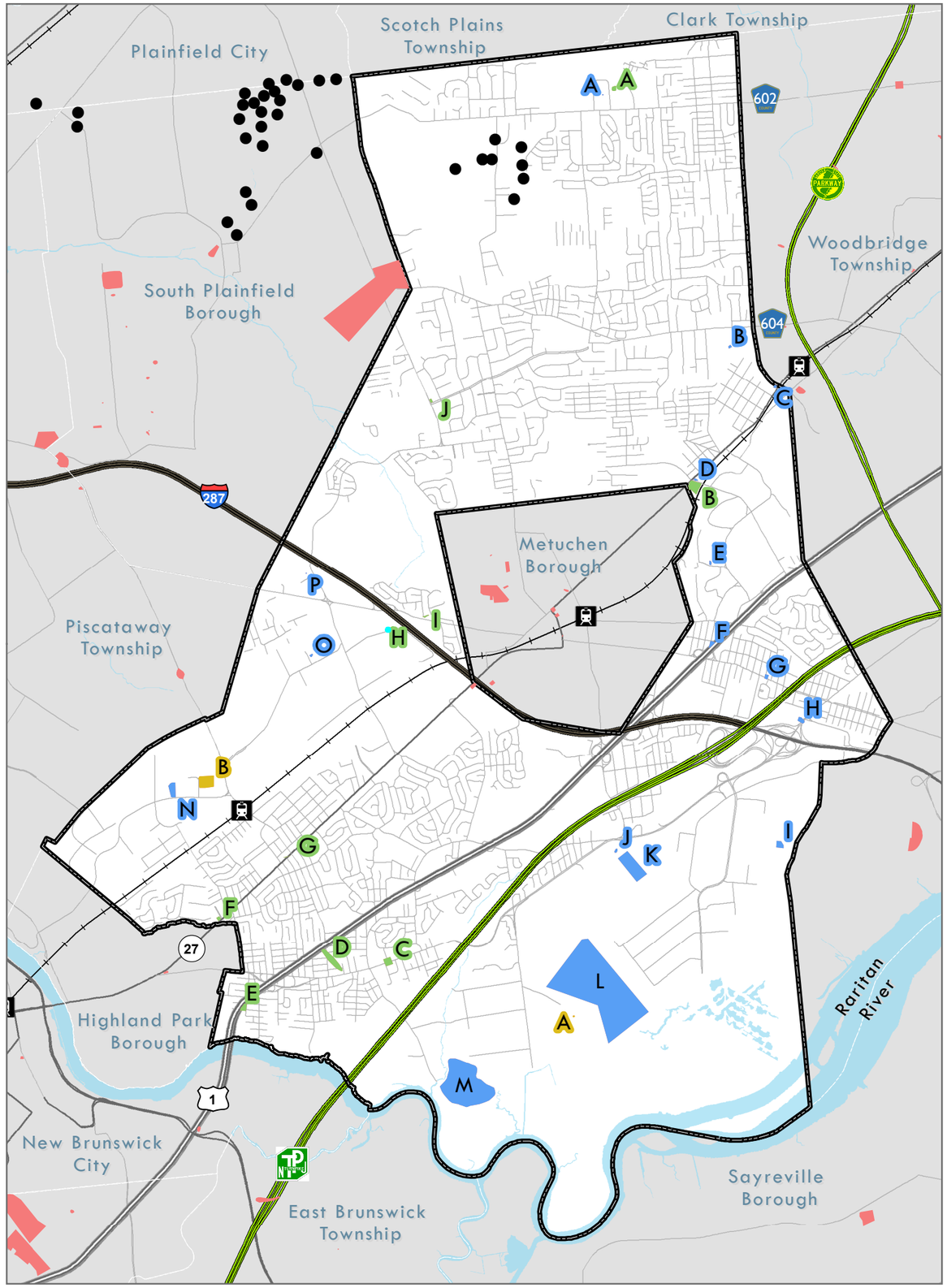
Confined wells have a fifty foot radius delineated around each well serving as the wellhead protection area to be controlled by the water purveyor in accordance with Safe Drinking Water Regulations" (see NJAC 7:10-11.7(b) 1). Confined wells are sunk through an impermeable stratum down into an aquifer, which is sandwiched between two impermeable strata. The majority of confined aquifers are classified as Artesian, as the hydraulic head in a confined well is higher than the level of the top of the aquifer. If the hydraulic head in a confined well is higher than the land surface it is a "flowing" artesian well. Unconfined wells are completed in the uppermost-saturated aquifer at that location

A wellhead protection area (WHPA) is the portion of an aquifer through which groundwater moves to a well. Well Head Protection Area delineations are conducted in response to the Safe Drinking Water Act Amendments of 1986 and 1996 as part of the Source Water Assessment Program (SWAP). The delineations are the first step in defining the sources of water to a public supply well. Within these areas, potential contamination will be assessed and appropriate monitoring will be undertaken as subsequent phases of the NJDEP SWAP program.

The Wellhead Protection Areas include the two-, five-, and twelve-year tiers for public community wellheads and public non-community wellheads. There are two public non-community wellhead protection areas near Robison's Branch creek, and South Branch of the Rahway River.

There are nine Public Community Water Supply wells in Edison Township. All nine wells are owned by Middlesex Water Co. at Tingley Lane in northwestern part of Edison Township.

Groundwater Contamination Classification Exception Areas/Well Restriction Areas (CEA/WRA)



The Township of EDISON

Environmental Resource Inventory

GROUNDWATER CONTAMINATION CLASSIFICATION EXCEPTION AREAS / WELL RESTRICTION AREAS

- Public Community Water Supply Wells
- Areas Beyond Municipal Boundary

AREAS WITHIN EDISON

Assigned Site Remediation Program

BISR - Bureau of Industrial Site Remediation

- A - Nuodex, Inc.
- B - Private Formulations Inc.

BOMM - Bureau of Operation, Maintenance & Monitoring

- A - Frank Millman Distributors
- B - Oak Tree Center Mall
- C - Exxon Service Station #3-5405
- D - Shell Service Station Edison Twp.
- E - Roosevelt County Park
- F - Getty Service Station #00498
- G - Texaco Service Station Edison Twp.
- H - Exxon Service Station #3-2582
- I - Raritan Periodical Sales
- J - First Fidelity Bank
- K - ABZ Realty Transamerican
- L - Thom. Edison Co. Pk. Maint. Garage
- M - Kin-Buc Landfill
- N - Continental Beverage Packaging Co.
- O - ADT, Inc. (frmr. Automatic Catering)
- P - Somfy Systems Inc.

BUST - Bureau of Underground Storage Tanks

- A - Torsiello & Sons
- B - Hess Service Station #30205
- C - Shilka Store (former US Oil SS)
- D - Amoco Service Station #842
- E - U-Haul Moving and Storage
- F - Hess Service Station #30258
- G - Rt. 27 Service Station
- H - National Food Store Services
- I - Shell Service Station #2347-0904
- J - Edison Citgo

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJGS

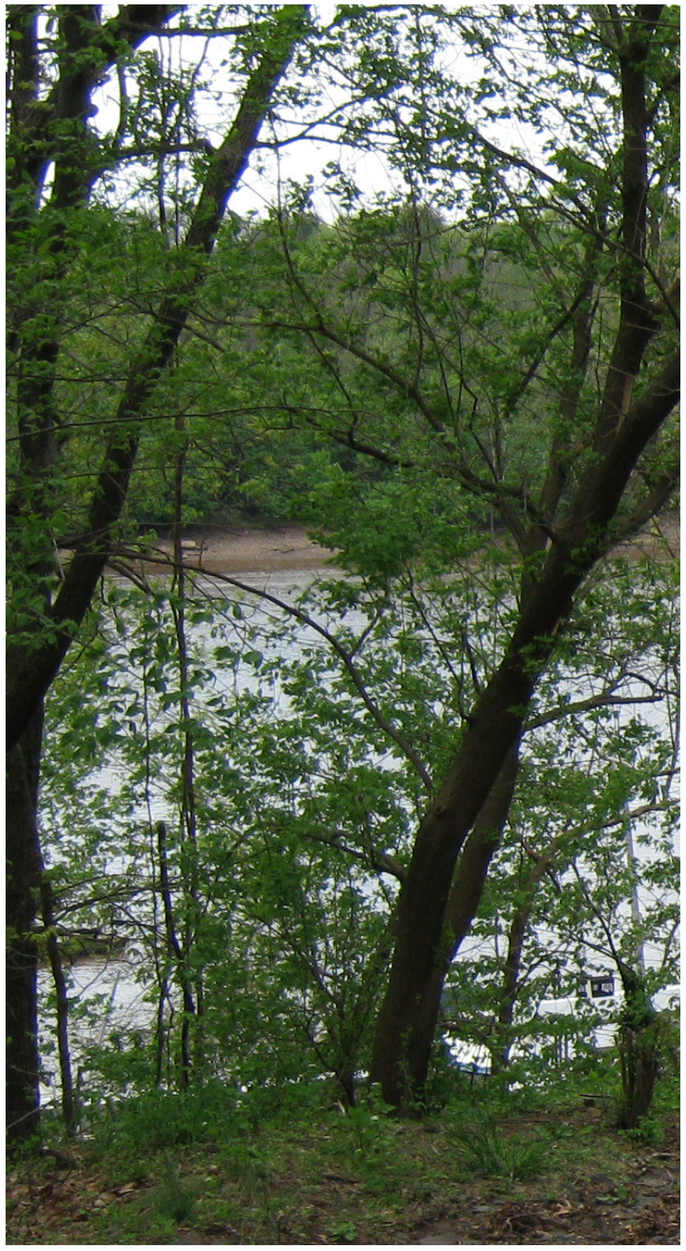
N

November 2010

The quality of ground water recharged to the water table depends on the presence of Known Contaminated Sites or sites on the Site Remediation Program (SRP) Comprehensive Site List where groundwater contamination has been identified. Such areas (known as Classification Exception Areas (CEAs) and Well Restriction Areas (WRAs)) are institutional controls in geographically defined areas within which the New Jersey Ground Water Quality Standards (NJGWQS) for specific contaminants have been exceeded. The CEA list is compiled by New Jersey Department of Environmental Protection (NJDEP), Site Remediation Program (SRP), Division of Remediation Support (DRS), Information Services Element (ISE), Bureau of Information Services and Program Support (BISPS).

When a CEA is designated for an area, the constituent standards and designated aquifer uses are suspended for the term of the CEA. A public understanding of where groundwater is known to be contaminated can help prevent inappropriate well placement, preventing potential health risks and can minimize unintended contaminant plume migration. There are 28 CEAs/WRAs located within Edison Township. There are no Currently Known Extents of Groundwater Contamination (CKEs) within the Township.

Agency Abbreviations: BISR – Bureau of Industrial Site Remediation; BOMM – Bureau of Operation, Maintenance & Monitoring; BUST – Bureau of Underground Storage Tanks.

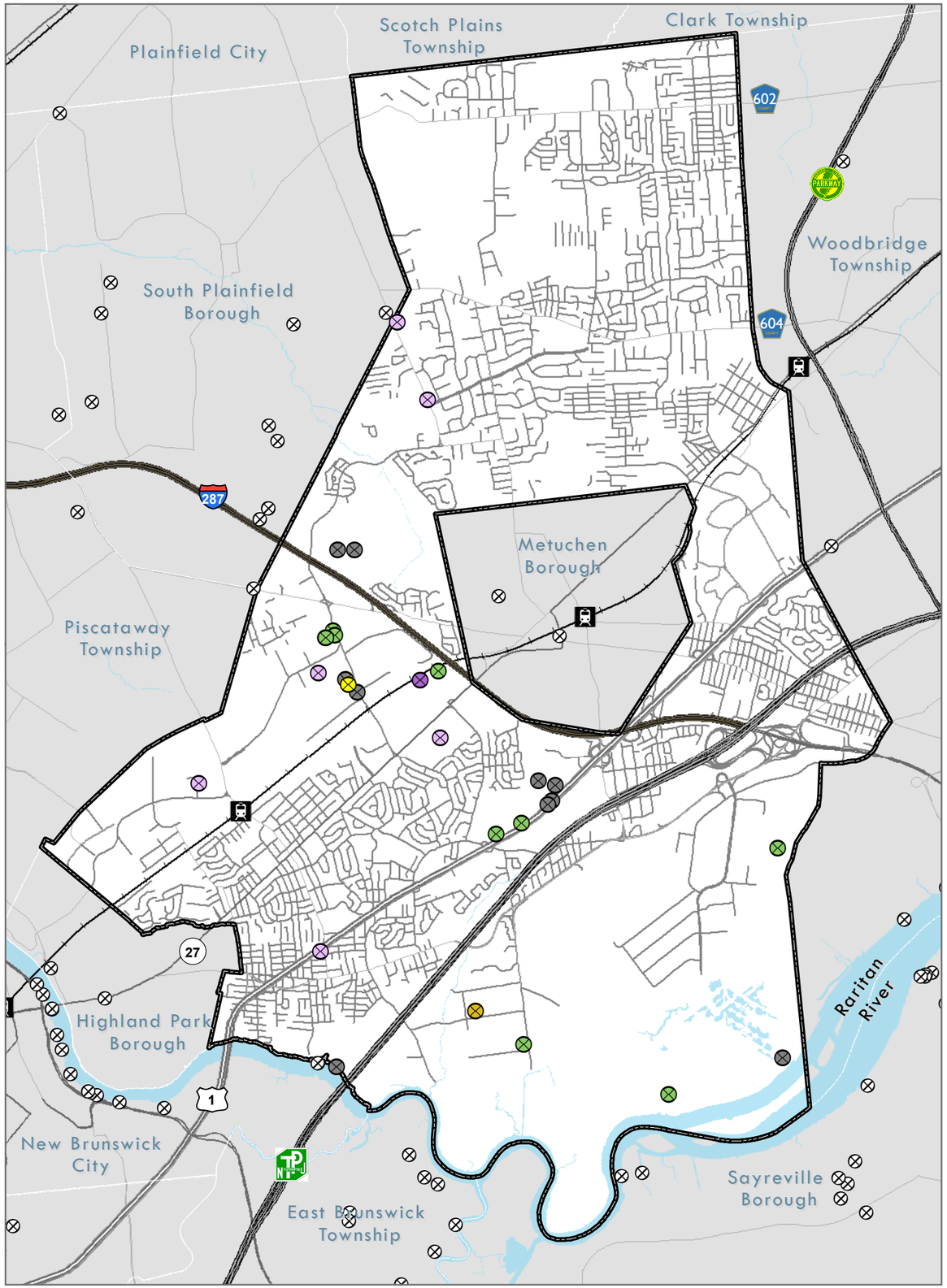


Agency Abbreviations: BISR – Bureau of Industrial Site Remediation; BOMM – Bureau of Operation, Maintenance & Monitoring; BUST – Bureau of Underground Storage Tanks.

Map Icon	Known Contaminated Site List Number	Name	Address	Block-Lot	Area (acres)	Depth (feet)	Contaminants
BISR – Bureau of Industrial Site Remediation							
A	NJD063138531	Nuodex, Inc.	40 Nixon Ln.	368-15.A1	0.1	40	Perchloroethylene
B		Private Formulations Inc.	460 Plainfield Ave.	3B–8A	6.45	177	Dichoromethane Methylene Chloride
BOMM – Bureau of Operation, Maintenance & Monitoring							
A		Frank Millman Distributors	8 Progress St.	240 -1	.05	18	Benzene, Methyl Tertiary Butyl Ether, Ethlbenzene, Toluene, Xylenes
B	NJL800508491	Oak Tree Center Mall	1665 Oak Tree Dr.	643DD -36	0.28	7	Trichloroethylene, Perchloroethyele, Vinyl Chloride, Dichloroethylene
C	NJD986604833	Exxon Service Station #3-5405	Route 27 & Wood Ave.		0.31	40	Benzene
D	NJD000701185	Shell Service station Edison Twp.	33 Route 27	673 -5.J	0.24	50	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol, Total Xylenes
E	NJL000039149	Roosevelt County Park	Oakwood Ave.	689- 3, 4	0.30	50	Benzene, Tentatively Indentified Compounds, Xylenes, Ethylbenzene
F		Getty Service Station	Route 1 & John St.	692E-8B, 692D-39A	0.77	50	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol, Tentatively Indentified Compounds, Ethylbenzene, Xylenes
G	NJD986607455	Texaco Service Station Edison Twp.	960 Amboy Ave	69A-5, 6, 7, 8	0.63	50	Benzene, Tentatively Indentified Compounds
H	NJD986599777	Exxon Service Station #3-2582	3115 Woodbridge Ave.	756A-7	1.08	33	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol
I	NJL0000599777	Raritan Periodical Sales	125 Clearview Ave.	390-C -13-B-A	1.66	50	Benzene, Lead (Pb), Xylenes, Fuel Oil #2 (free product)
J	NJD981873961	First Fidelity Bank	2850 Woodbridge Ave.	390-51	0.36	50	Tentatively Indentified Compounds
K		ABZ Realty Transamerican	2850 Woodbridge Ave.	390-51, 54, 394-2	14.1	100	Trichloroethylene, Perchloroethylene, Dichloroethene, Trichloroethane
L	NJL600080527	Thomas Edison Co. Park Maintenance Garage	1 W Patrol Rd/Mill Rd	1.B.2-395	164.7	50	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol
M		Kin-Buc Landfill	383 Meadown Rd.	See Report	62.76	50	Benzene, t-Butyl Alcohol, Trichloroethylene, Perchloroethylene, Vinyl Chloride, Lead (Pb), Arsenic, Cadmium, Tentatively Indentified Compounds, Chlorobenzene, Toluene, Benzo(a) anthracene, Nickel, Aldrin

Map Icon	Known Contaminated Site List Number	Name	Address	Block-Lot	Area (acres)	Depth (feet)	Contaminants
N	NJD047512611	Continental Beverage Packaging Co.	24 Kilmer Rd.	3B – 2A	3.18	55	Trichloroethylene, Perchloroethyele, Trichloroethane, Dichloroethylene, Dichloroethane, Xylenes
O	NJL600024228	ADT, Inc. (former Automatic Catering)	58 Brunswick Ave.	22-A2 - D7	0.25	50	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol
P	NJL800109076	Somfy Systems Inc.	2 Sutton Pl.		0.04	50	
BUST – Bureau of Underground Storage Tanks							
A	NJL000055814	Torsiello & Sons	27 Progress St	412A- 13, 14, 15	0.75	60	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol, Tentatively Indentified Compounds, Ethylbenzene, Toluene, Xylenes
B	NJD986597664	Hess Service Station #30205	Route 27 & Parsonage Rd.	674 -1A, 1B1	4.20	50	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol, Naphthalne, Tentatively Indentified Compounds, Toluene, Ethylbenzene, Xylenes,
C		Shilka Store (former US Oil SS)	2279 Woodbridge Ave.	See report	2.14	50	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol
D	NJL600006464	Amoco Service Station #842	Route 1 & Plainfield Ave.	See report	5.27	60	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol, Tentatively Indentified Compounds, Xylenes,
E	NJL000067850	U-Haul Moving and Storage	110 Route 1	300A -16A	1.27	100	Benzene, Methyl Tertiary Butyl Ether, Toluene, Ethylbenzene, Xylenes,
F	NJC876004169	Hess Service Station #30258	Route 27 & Highway Terr.		0.46	50	Benzene
G		Route 27 Service Station	1818 Lincoln Hwy	See report	0.13	50	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol
H	NJD982794836	National Food Store Services	76 National Rd		0.25	30	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol, Naphthalne
I	NJD986585982	Shell Service Station #2347-0904	764 Durham Ave.	87B-12 ; 57B-11B	0.32	50	Benzene, Methyl Tertiary Butyl Ether, t-Butyl Alcohol, Xylenes, Ethylbenzene
J	NJL600189864	Edison Citgo	3875 Park Ave.	1019 -1A	0.33	50	Methyl Tertiary Butyl Ether, t-Butyl Alcohol, Xylenes,

New Jersey Pollution Discharge Elimination System (NJPDES) Locations



The Township of EDISON

Environmental Resource Inventory

POLLUTION DISCHARGE ELIMINATION SYSTEM

⊗ Locations Beyond Municipal Boundary

Ground Water Discharge

STATUS

- E - Existing
- U - Unknown

Surface Water Discharge

STATUS

- E - Existing
- U - Unknown
- R - Revoked/Terminated
- X - Permits Transferred to Bureau of Non-point Pollution Control

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP

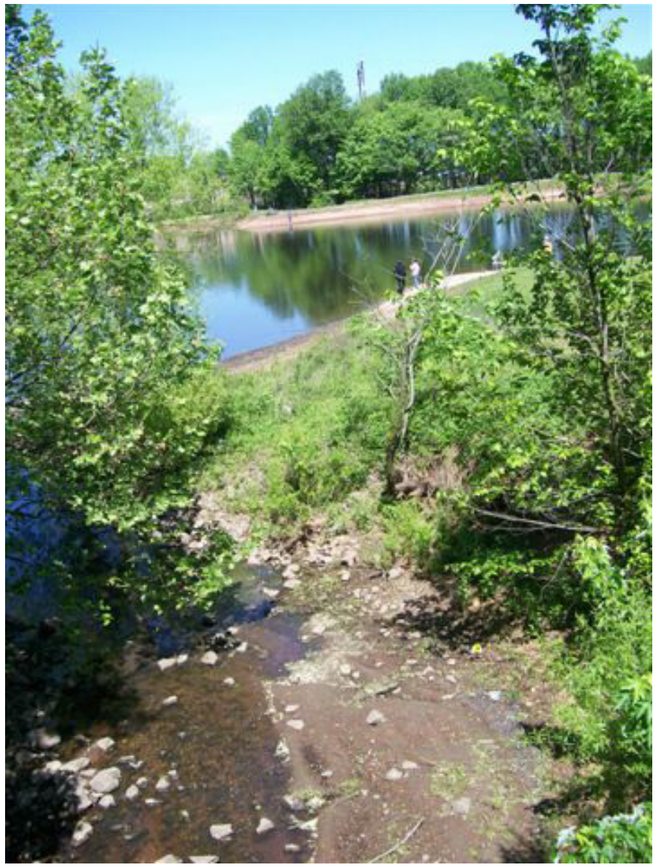
N

December 2010

The NJPDES Program protects New Jersey's ground and surface water quality by assuring the proper treatment and discharge of wastewater (and its residuals) and storm water from various types of facilities and activities. To accomplish this, permits are issued limiting the mass and/or concentration of pollutants, which may be discharged into ground water, streams, rivers, and the ocean. The types of regulated facilities can range from very small users (e.g.: campgrounds, schools, and shopping centers) to larger industrial and municipal wastewater dischargers.

Surface Water Discharge

This regulated activity involves the discharge of treated effluent from various municipal and industrial facilities directly into a river, stream, or the ocean. These facilities operate under the authority of a NJPDES permit that limits the mass and/or concentration of pollutants discharged.



The following table lists the surface water discharge points (compiled from GPS locations, NJPDES databases, and permit applications), the receiving waters, discharge type, type of discharge pipe and permit status of all locations within the Township of Edison:

NJPDES Permit #	Facility Name	Receiving Waters	Discharge Type	Pipe Category	Comments
E - Existing in the Point Source Permitting Regions					
NJ0001210.002A	La Dreyfus Company	Cedar Brook (Plainfield) via storm sewer	IMI	002A	Sampling manhole
NJ0105716.001A	Private Formulations - CVS Inc	Mill Brook via storm sewer and unnamed tributary	IMI	001A	
NJ0127698.001A	Con-lux Coatings Inc	Bound Brook via drainage ditch	IMI	001A	
NJ0136158.001A	Amoco S/S	Raritan River via storm sewer	B4B	001A	
NJ0137383.001A	H B Fuller	Ambrose Brook via unnamed tributary	IMI	001A	
NJ0141992.001A	Electrolux Home Products	Ambrose Brook via sewer	B4B	001A	
NJG0071722.001A	Citgo S/S - Southland Corp	Bound Brook via storm sewer	B4B	001A	Over catch basin on Park Ave near West entrance
U - Unknown (could not be determined from data available)					
NJG0026255.001A	Mobil Chemical Company	Bound Brook via storm sewer	IMI	001A	
R - Revoked/Terminated - pipe no longer permitted for discharge					
NJ0030503.001A	Valvoline Oil Company	Martins Creek via storm sewer	IMI	001A	
NJ0053619.001A	U S EPA Mobile Carbon ReGen	Red Root Creek	IMI	001A	
NJ0070475.001A	Mobil Chemical Co	Bound Brook via unnamed tributary	IMI	001A	
NJ0106771.001A	Con-lux Coatings Inc	Bound Brook via drainage ditch	IMI	001A	
NJ0106771.002A	Con-lux Coatings Inc	Bound Brook via drainage ditch	IMI	002A	
NJ0106771.003A	Con-lux Coatings Inc	Bound Brook via drainage ditch	IMI	003A	
NJ0136999.001A	Fromkin Brothers Inc	Black Ditch (Raritan River) via storm sewer	B4B	001A	
NJG0002691.001A	Ford Motor Company	Mill Brook via storm sewer	IMI	001A	Approx 50ft South Of Outfall
NJG0002691.002A	Ford Motor Company	Mill Brook via storm sewer	IMI	002A	Approx 50ft South Of Outfall
X - Permits transferred to the Bureau of Non-point Pollution Control					
NJ0107395.001A	Amerchol Corp	Bound Brook via unnamed tributary & storm sewer	IMI	001A	
NJ0107395.002A	Amerchol Corp	Bound Brook via unnamed tributary & storm sewer	IMI	002A	
NJ0121444.001A	Quality Materials Inc	Bound Brook via drainage ditch	IMI	001A	
NJ0121444.002A	Quality Materials Inc	Bound Brook via drainage ditch	IMI	002A	
NJ0124290.001A	Clayton Block Co Inc - Edison	Mill Brook (Raritan River) via storm sewer	IMI	001A	
NJ0124290.002A	Clayton Block Co Inc - Edison	Mill Brook (Raritan River) via storm sewer	IMI	002A	
NJ0124290.003A	Clayton Block Co Inc - Edison	Mill Brook (Raritan River) via storm sewer	IMI	003A	
NJ0124290.004A	Clayton Block Co Inc - Edison	Mill Brook (Raritan River) via storm sewer	IMI	004A	
NJ0124371.001A	F F Phillips Inc - Raritan	Red Root Creek (Raritan River) via storm sewer	IMI	001A	
NJ0003603.521	PSE&G - Edison G S	Raritan River	IMI	521	60ft from outfall

Source: NJDEP, New Jersey Pollution Discharge Elimination System (NJPDES) Regulated Discharge to Surface Water Facility Locations (2007)

Description of Abbreviations:

Discharge Type: B4B – Petroleum hydrocarbon remediation; IMI – Industrial minor - based on the amount of pollutants(s) in the effluent

Pipe Category: B4B – General permit GW petroleum product cleanup; B – Industrial discharge; RF – Stormwater; 5G – General industrial site stormwater runoff

Ground Water Discharge

The discharge of pollutants to the ground waters of the State is regulated by the Department under the authority of the New Jersey Water Pollution Control Act (WPCA) N.J.S.A. 58:10A. The WPCA specifies, "No person shall discharge any pollutant except in conformity with a valid NJPDES permit." The permit program is called NJPDES which stands for New Jersey Pollutant Elimination System, and the regulations are found at N.J.A.C. 7:14A.

NJPDES permits are required for discharges to ground water of both sanitary and industrial wastes, as defined in N.J.A.C. 7:14A-1.9. These permits, which limit the mass and/or concentration of pollutants discharged, are issued to sanitary and industrial facilities that have ongoing, operational discharges of wastewater to ground water. The pollution control requirements contained in NJPDES ground water permits are those conditions necessary to restrict the discharge of pollutants to the ground waters of the state and protect the public health and the environment.

Regardless of flow volume or constituent content/concentration, all industrial discharges to ground water must be authorized under a NJPDES permit or procure an exemption or non-permit determination. Sanitary discharges to ground water may be subject to NJPDES program requirements based on flow volume and method of discharge. In most cases, a Treatment Works Approval (TWA) is required prior to constructing or altering facilities associated with a NJPDES permit.

The types of discharge activities that are regulated by the Division of Water Quality and its NJPDES program include: surface impoundments; infiltration/percolation lagoons; overland flow systems; spray irrigation systems; and various types of subsurface disposal systems that are classified as underground injection systems.

The types of facilities regulated include: mines, pits and quarries; schools and hospitals; potable water treatment plants; large corporate office buildings; industrial manufacturing facilities; campgrounds and mobile home parks; food processors. They also include sewage treatment plants and other dischargers of wastewater that can negatively impact ground water, as well as dredge spoils disposed onto land surfaces.

The following table lists the ground water discharge points (compiled from GPS locations, NJPDES databases, and permit applications), the receiving waters, discharge type, type of discharge pipe, and permit status of all locations within the Township of Edison:

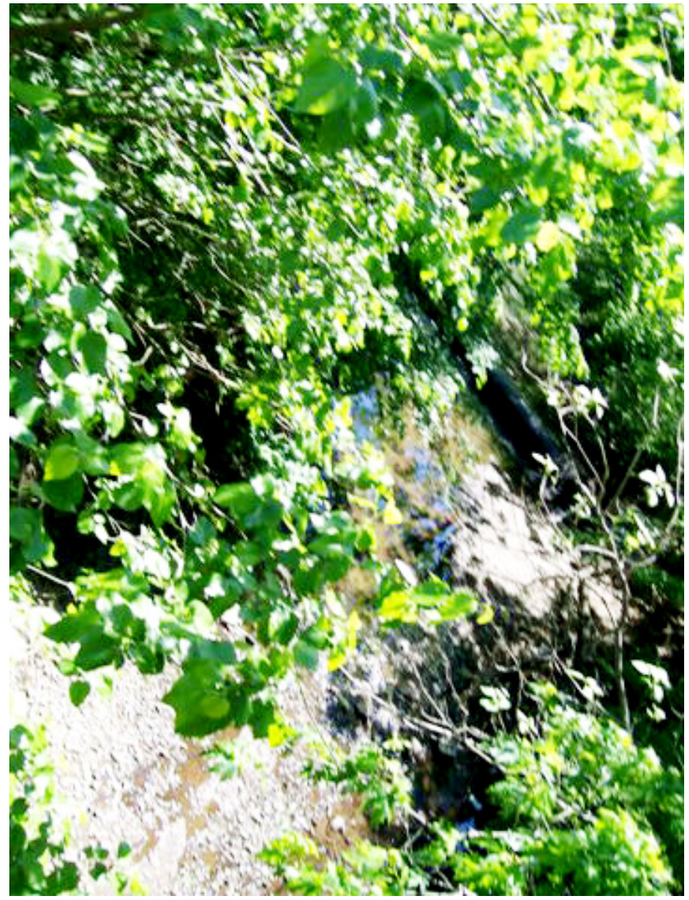
NJPDES Permit #	Facility Name	Receiving Waters	Discharge Type	Pipe Category	Comments
E - Existing in the Point Source Permitting Regions					
NJ0051454. I011 GPS	Amerchol Corporation	Infiltration Pond	INF	I011	15 Ft from outfall
U - Unknown (could not be determined from data available)					
NJ0105317. I011 GPS	Castrol N American Auto Div	Infiltration Pond	INF	I011	

Source: NJDEP, New Jersey Pollution Discharge Elimination System (NJPDES) Regulated Discharge to Ground Water Facility Locations (2007)

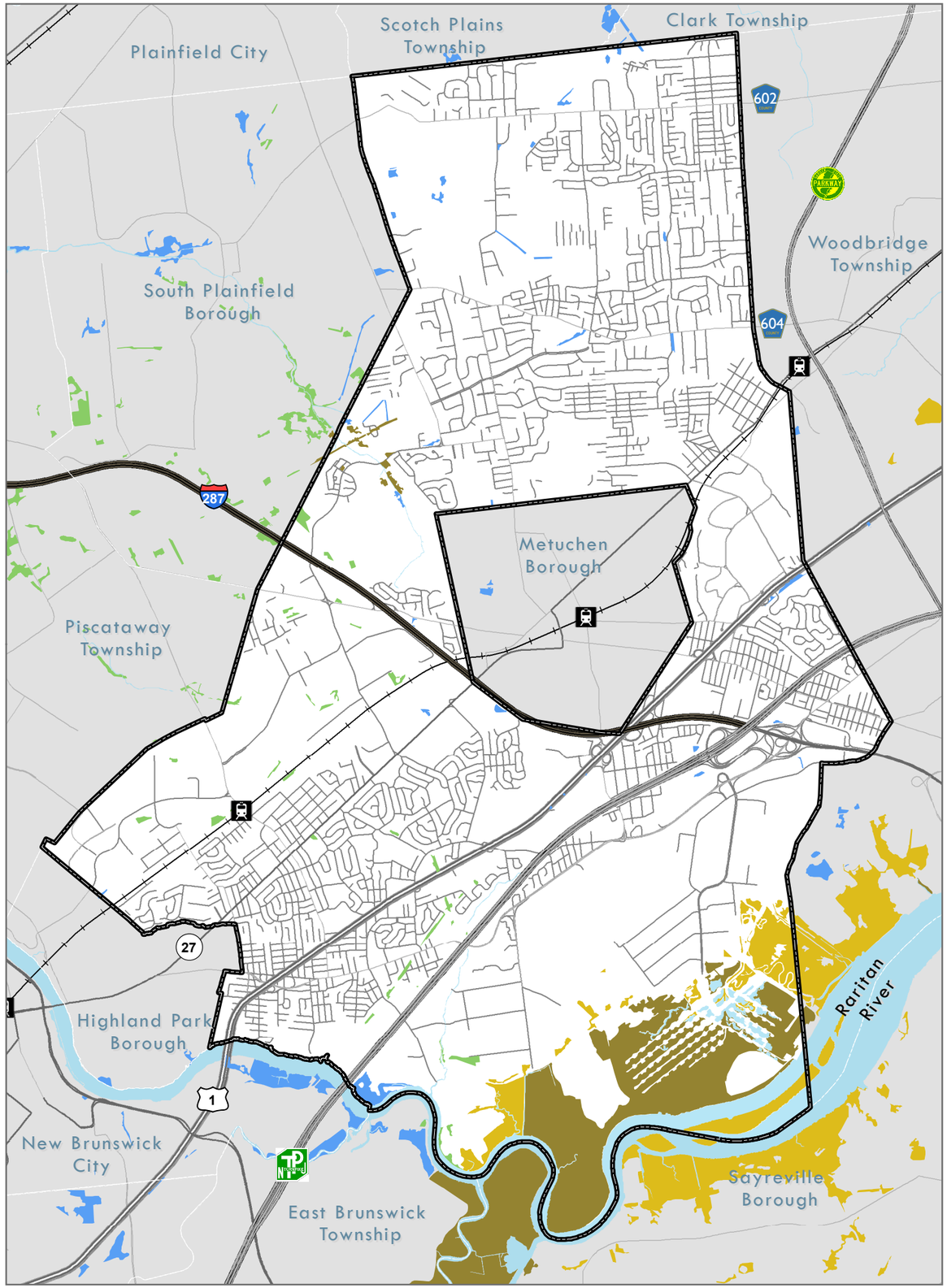
Description of Abbreviations:

Discharge Type: INF – Infiltration lagoon, pond, spray field or other such water body.

Pipe Category: I – Various infiltration lagoons or other impoundments



Critical Habitat Areas



The Township of EDISON

Environmental Resource Inventory

EMERGENT WETLANDS

RANK

- 1 - Suitable Habitat
- 2 - Priority Species
- 3 - State Threatened
- 4 - State Endangered

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP

N

November 2010

The NJDEP Endangered and Non-Game Species Program created the Landscape Project as an ecosystem level approach to identifying and protecting species habitat in the state. The program identifies critical habitat areas and ranks them by the presence or absence of priority, threatened or endangered species. The habitat areas are divided into five broad habitat types – grasslands, forested wetlands, forest, emergent wetlands and beach. These five habitat types are then mapped into habitat blocks and the habitat blocks are ranked based on the presence or absence of priority, threatened or endangered species. Specific habitat areas for bald eagle foraging areas, urban peregrine falcon nests, and wood turtles have further augmented the information gathered for the different habitat types. The most recent GIS data is from 2008 – Landscape Project, Version 2.1.

The Emergent Wetlands, Forested Wetlands, Forest habitat types are all part of the Piedmont Plains landscape. This landscape encompasses all or parts of Burlington, Gloucester, Mercer, Middlesex, Monmouth and Salem counties. It is dominated by the Delaware and Raritan rivers, and is characterized by farmed areas, extensive grasslands, fragmented woodlands and tidal freshwater marshes that are among the most productive in the world. Imperiled species within this landscape include grassland birds such as the endangered upland sandpiper, and woodland raptors such as the barred owl and Cooper's hawk. The importance of these habitat areas and ranking is to preserve not just specific threatened locations of imperiled species, but also all the critical wildlife areas that must be preserved to protect those species.

Areas of each type (in acres) by rank of landscape habitats:

Habitat Type	Suitable Habitat	Priority Habitat	State Threatened habitat	State Endangered Habitat	Total
Emergent Wetlands	66	73	562	848	1,549
Forested Wetlands	1,527	204	0	0	1,731
Forest	1,158	867	0	0	2,025

Note: Area in acres, rounded to nearest whole number. The total areas do not add up to the area of the township since many habitat types overlap each other, resulting in one or more types in a particular area.

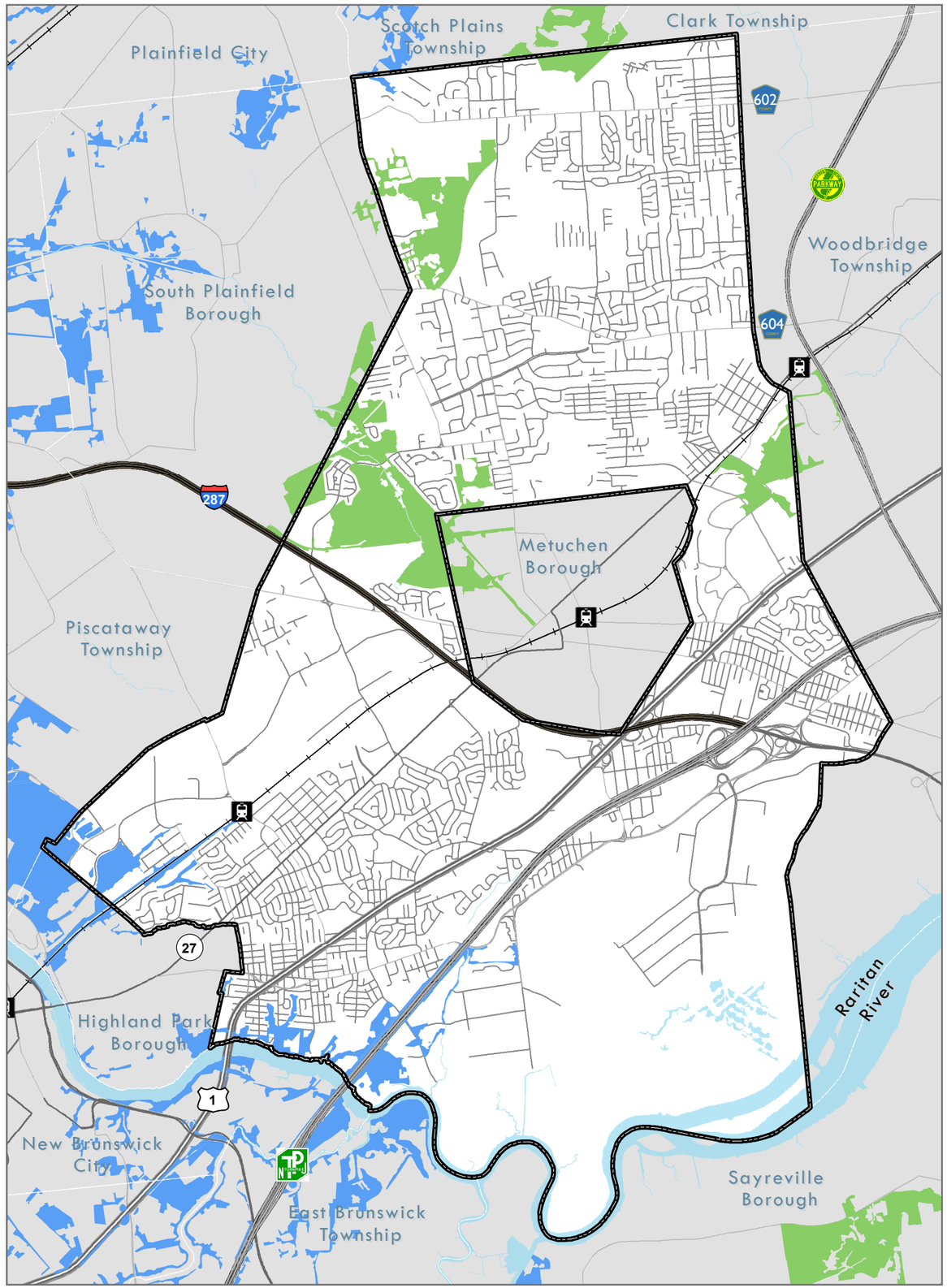
Source: NJDEP, 2008 Landscape Project, Version 2.1

Emergent Wetland

The critical area maps for emergent wetland dependent species were generated by selecting specific land-use classes from NJDEP's Land Use/ Land Cover data set, aggregating the various, contiguous habitat patches into single emergent wetland habitat patched and then ranking each patch for the presence or absence of Federal and State priority, threatened or endangered species.

- Wetlands Agricultural Wetlands (Modified)
- Wetlands Former Agricultural Wetland (Becoming Shrubby)
- Wetlands Freshwater Tidal Marshes
- Wetlands Herbaceous Wetlands
- Wetlands Saline Marshes
- Wetlands Severe Burned Wetlands
- Wetlands Vegetated Dune Communities
- Wetlands Wetland Rights-Of-Way (Modified)

Edison Township has all of or portions of 126 distinct emergent wetland habitat patches that either lie entirely within or that cross over into adjacent municipalities that total approximately 1,549 acres within the municipal boundary. Of these, 66 acres are suitable emergent wetland habitat, 73 acres of priority emergent wetland habitat, 562 acres of State threatened emergent wetland habitat, and 848 acres of State endangered emergent wetland habitat. The suitable habitat and priority habitat are both located in several small patches throughout the Township. The state threatened and endangered habitats are found in large contiguous patches in the southeast portion of the Township, along the Raritan River.



The Township of EDISON

Environmental Resource Inventory

FOREST

RANK

1 - Suitable Habitat

2 - Priority Species

1 in = 5,000 feet

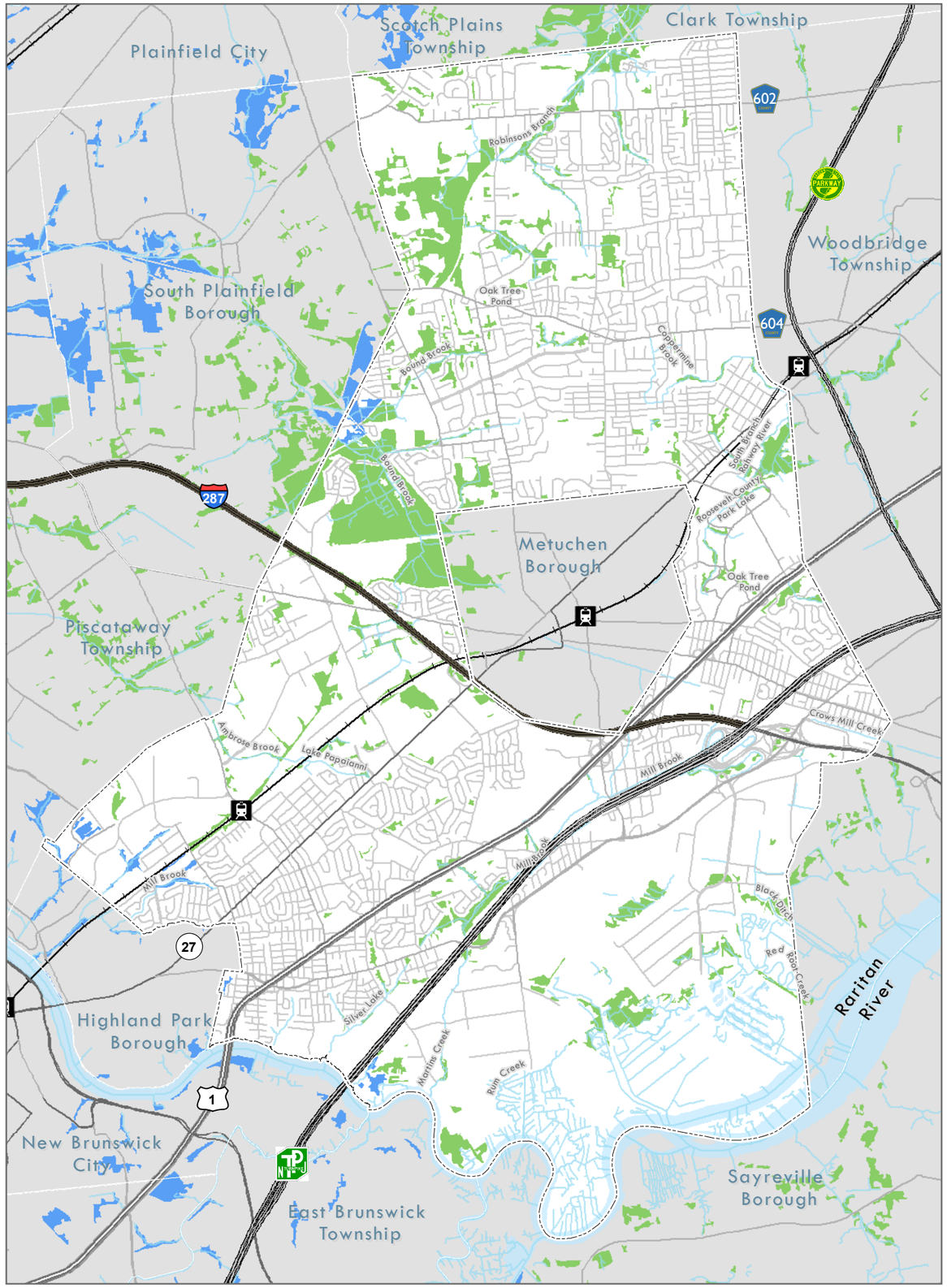
Feet

0 2,500 5,000 10,000

Data Source: NJDEP

N

November 2010



The Township of
EDISON

Environmental Resource Inventory

FORESTED WETLANDS

Open Water

RANK

1 - Suitable Habitat

2 - Priority Species

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

Data Source: NJDEP, NJGS

N

November 2010

Forested Wetland

The critical area maps for forested wetland dependent species were generated by selecting specific land-use classes from NJDEP's Land Use/Land Cover data set, aggregating the various, contiguous habitat patches into single forested wetland habitat patched and then ranking each patch for the presence or absence of Federal and State priority, threatened or endangered species.

- Wetlands Atlantic White Cedar Swamp
- Wetlands Coniferous Scrub/Shrub Wetlands
- Wetlands Coniferous Wooded Wetlands
- Wetlands Deciduous Scrub/Shrub Wetlands
- Wetlands Deciduous Wooded Wetlands
- Wetlands Mixed Forested Wetlands (Coniferous Dominant)
- Wetlands Mixed Forested Wetlands (Deciduous Dominant)
- Wetlands Mixed Scrub/Shrub Wetlands (Coniferous Dominant)
- Wetlands Mixed Scrub/Shrub Wetlands (Deciduous Dominant)

Edison Township has 277 distinct forested wetland habitat patches that either lie entirely within or that cross over into adjacent municipalities that total approximately 1,731 acres within the municipal boundary. Of these, 1,527 acres are suitable forested wetland habitat, and 204 acres are priority forested wetland habitat. The suitable habitat is spread out throughout the Township - along the banks of most of the rivers and creeks. Two small areas of Priority habitat are found: one, a northern portion near of the Dismal Swamp; two, adjacent to the Raritan River and Turnpike.

Forest

The critical area maps for forest dependent species were generated by selecting specific land-use classes from NJDEP's Land Use/Land Cover data set, aggregating the various, contiguous habitat patches into single forest habitat patched and then ranking each patch for the presence or absence of Federal and State priority, threatened or endangered species.

- Forest Coniferous Brush/Shrubland
- Forest Coniferous Forest (>50% Crown Closure)
- Forest Coniferous Forest (10-50% Crown Closure)
- Forest Deciduous Brush/Shrubland
- Forest Deciduous Forest (>50% Crown Closure)
- Forest Deciduous Forest (10-50% Crown Closure)
- Forest Mixed Deciduous/Coniferous Brush/Shrubland
- Forest Mixed Forest (>50% Coniferous With >50% Crown Closure)

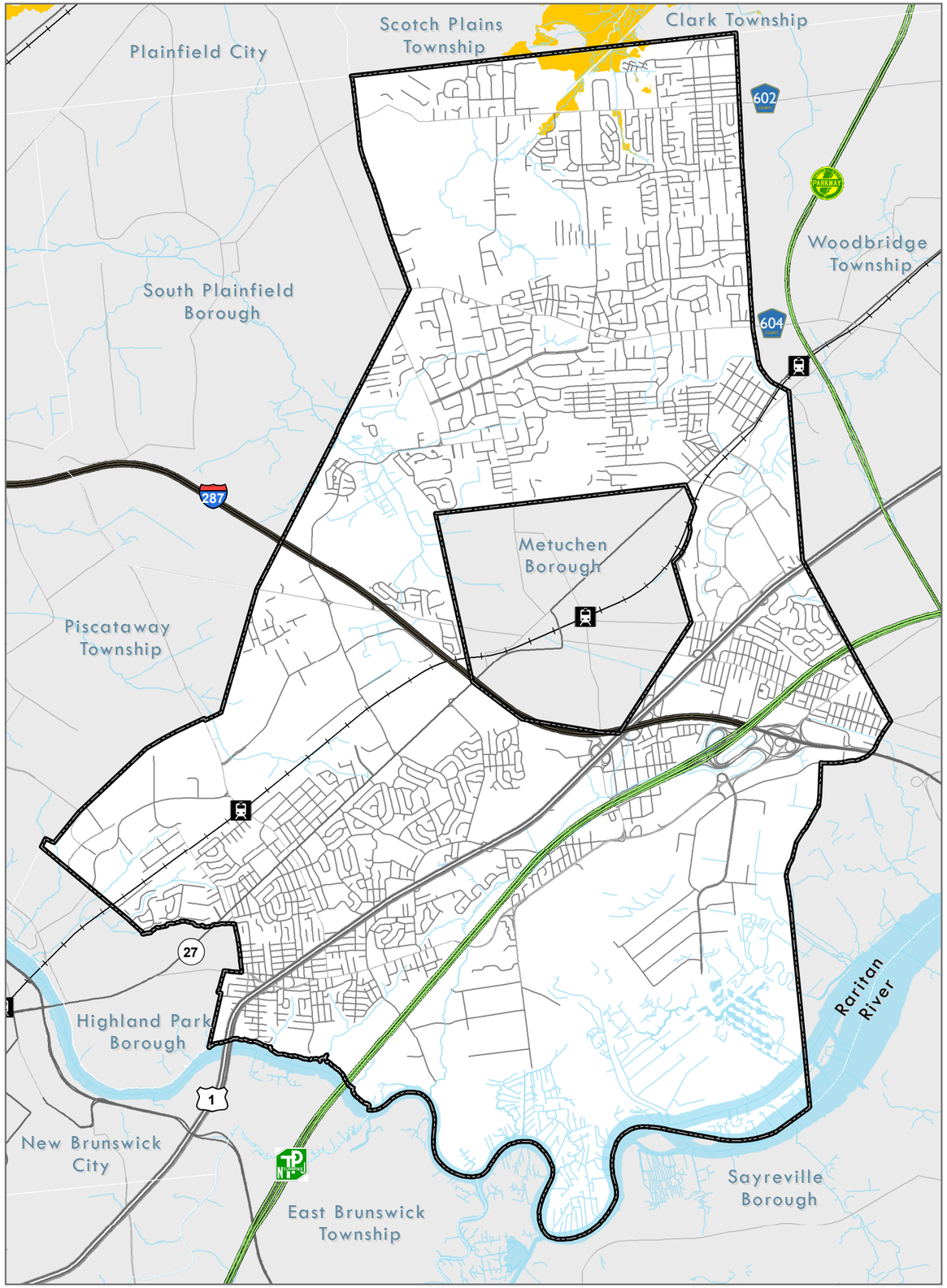
- Forest Mixed Forest (>50% Coniferous With 10%-50% Crown Closure)
- Forest Mixed Forest (>50% Deciduous With >50% Crown Closure)
- Forest Mixed Forest (>50% Deciduous With 10-50% Crown Closure)
- Forest Old Field (< 25% Brush Covered)
- Forest Plantation
- Forest Severe Burned Upland Vegetation

Edison Township has all of or portions of 26 distinct forest habitat patches that either lie entirely within or that cross over into adjacent municipalities that total approximately 2,025 acres. Of these, 1,158 acres are suitable forest habitat and 867 acres are priority forest. The suitable forest habitat is found in six large contiguous patches in the northern half of the Township, north of Interstate 287. Priority forest habitat areas are located in several small patches in the southwest portion of the Township – along the Raritan River, Turnpike, Northeast Corridor railroad and borders with Highland Park and Piscataway.

Wood Turtle

Critical Areas for wood turtles are designated using a four-step process. First, a 0.2 mile (1,056 ft) buffer is applied to all streams within a one mile radius of each wood turtle sighting. Second, the NJDEP land use/ land cover GIS layer is overlaid on the buffered areas. Third, all areas classified as wetlands with the exception of cemetery on wetlands, and saline marshes, are overlaid on the stream buffers. All wetlands that are contiguous with the buffered areas are selected and clipped to only include wetlands within one mile of a sighting. Those wetlands are then merged into the stream buffers. Fourth and last, a staff turtle biologist conducts a detailed inspection and revision of each identified habitat to ensure biological accuracy. The wood turtle model is a stand-alone GIS layer that is not used to value habitat patches.

Edison Township has 106.5 acres of Wood Turtle area habitats, which includes two habitat patches that cross over into the Township of Scotch Plains and/or Clark Township. The habitat patches are located in the northern-most part of the Township, near County Route 602. Wood turtle habitats are ranked three, indicating the patches are ranked as state threatened.



The Township of EDISON

Environmental Resource Inventory

WILDLIFE PRIORITY SPECIES

Wood Turtle

RANK

3 - State Threatened

1 in = 5,000 feet

Feet

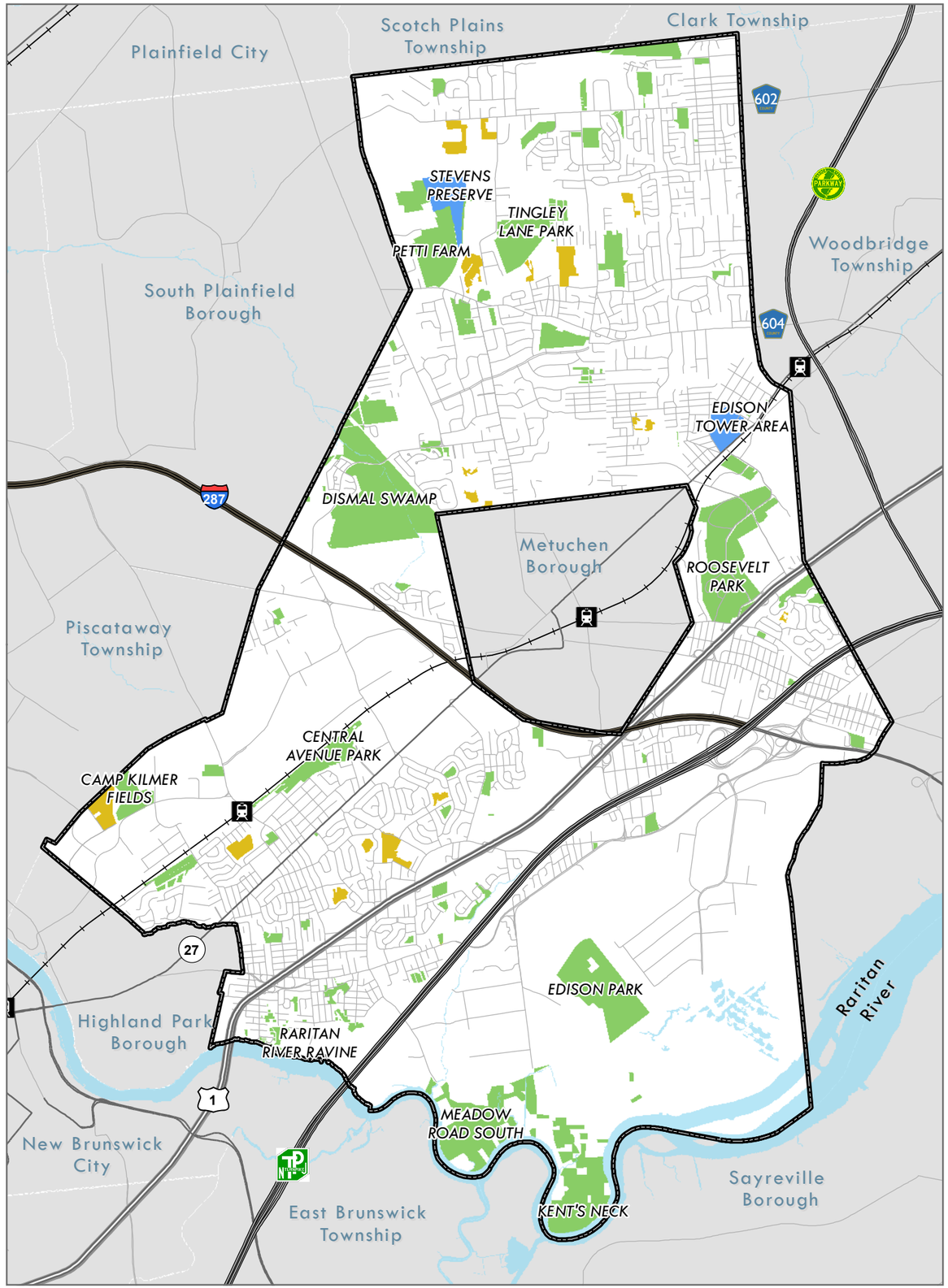
0 2,500 5,000 10,000

Data Source: NJMC, NJDEP

N

November 2010

Open Space Resources



The Township of EDISON

Environmental Resource Inventory

OPEN SPACE

- State Park (State Plng. Area 8)
- Green Acres (ROSI Properties)
- Athletic Fields (Schools)

1 in = 5,000 feet

0 2,500 5,000 10,000 Feet

N

Data Source: NJDEP, ROSI, MODIV 2010, Township of Edison Tax Maps

December 2010

Parks and recreation facilities play a central role in maintaining a Township's quality of life and contribute to a community's reputation as a desirable place to live and work. Such facilities provide an essential counterbalance for fully developed municipalities, providing residents with recreational opportunities, open space, social outlets and a refuge from the urban environment. Well-designed parks and recreation facilities also have the potential to function as a public common where residents may gather for civic and recreational purposes.

There are countless types of open space. Everyone has their own conception of what open space is and often times, many seemingly different types of open space occupy the same site. But open space generally falls into three categories that play individual roles within a community: active recreation (soccer fields, football fields, baseball and softball diamonds, running tracts, tennis courts, basketball courts, exercise trails, etc.); passive recreation (hiking trails, picnic areas, quite places, etc.) and natural resources protection (forest lands, wetlands, floodplains, steep slopes, stream corridors, etc.).

Green Acres Program - Recreation and Open Space Inventory (ROSI)

The Green Acres Program is a state-run program acting under NJDEP. With the help of public and private partners, Green Acres has protected almost 640,000 acres of open space and recreation areas throughout the State. The program's mission is "To achieve, in partnership with others, a system of interconnected open spaces, whose protection will preserve and enhance New Jersey's natural environment and its historic, scenic, and recreational resources for public use and enjoyment." With the help of the Green Acres Program, as of 2008 the Township of Edison has preserved approximately 1,096 acres of open space, passive and active recreational areas, and environmentally sensitive areas. Since, it has added two parcels totaling 6 acres. One site is located at 135 Whitman Avenue, Block 199A, Lot 31B1. The second site (Block 198L, Lot 25M) was part of the old Ford Sight near Paternitti Park. A list of the all the parcels preserved can be viewed by visiting: http://www.nj.gov/dep/greenacres/openspace.html.

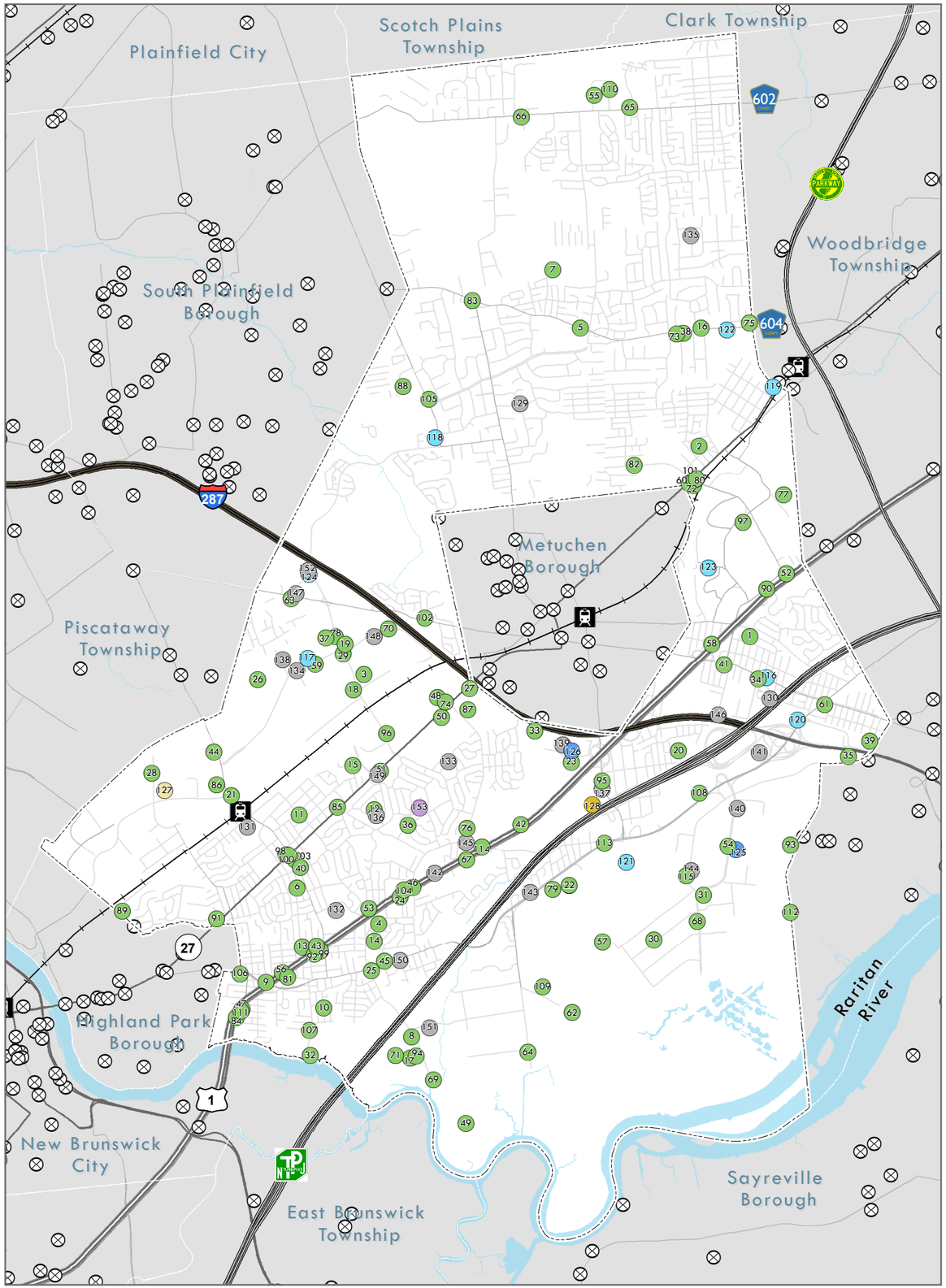
Existing Parks, Recreation and Open Space

To fully understand the nature of parks and open space in Edison Township, it is important to inventory the existing park, recreation and open space facilities in the Township. The inventory below lists the current parks and open space lands in the Township of Edison, listing the parks and acreage of each facility. Park spaces are broken down by ownership/ operation, as Middlesex County, the Edison School District, and Township of Edison all operate park, recreation and open space facilities within the Township. In fully developed communities, education facilities often double as park/ recreation/ open space facilities, providing and important supplement to Township facilities.

Recreational Facilities by Park														
	Backstop	Basketball	Bocce	Football	Hardball	Horseshoes	Pavilion	Picnic Grove	Playground	Shuffleboard	Soccer	Softball	Tennis Courts	Volleyball
Beatrice Parkway *Kingsbridge Dr & Beatrice Pkwy*									1					
Bernard L. Dwyer Park *Annette Drive & Gentore Court*	1	1							1		1	1		
Blossom / Ellmyer Parks *Blossom Street & Jefferson Blvd.*	1				1				1				1	
Crestwood Ballfield *Overbrook Ave & Crestwood Ave*	1								1			1		
Dudash Park *May Street & Liberty Street*		1							1					
Edison Woods Park *Karen Place & Rinear Drive*		1							1					
Gateway Park *Howard Avenue*	1	1			1				1					
Hale Park (New) *Talmadge Road & Alexis Lane*	1	1			1									
Health Center - Idlewild *Idlewild Road*	1				1									
Inman Avenue Park *Inman Avenue & Amherst Street*														
Kilmer Park *Plainfield Ave & Brunswick Ave*	1				1									
Lindquist Park *Beatrice Parkway & Hegel Ave*	1	1							1				1	
Minnie B. Veal / Elder Park *Grove Avenue & Firethorn Drive*	1	1					1	1	1			1		
North Edison Park *Cleveland Place & Grove Ave*									1					
North Eighth Tennis Courts *Eighth Avenue & Cellar Road*													4	
Oak Tree Pond *Oak Tree Road & New Dover Rd*														
Oak Tree Tennis Courts *Marion Street & Oak Tree Road*													8	
Old Post Park *Gurley Road & Stevens Road*									1					
Papaianni (Lake) *Central Avenue & Linden Ave*	2	4		1	1			1	1		1	1	4	
Paterniti Park *Vineyard Road*	1	1			1				1					
Polansky Park *New Dover Road & Grove Ave*	1								1			1		
Portland Street Tennis Courts *Park Avenue & Portland Street*													2	
Schenkmeyer Park *Edgemount Rd & North 8th Ave*	1	1		1					1				2	
Shamrock Park *Shamrock Way*				1					1					
Stelton Community Center/Park *Plainfield Ave & Hillside Ave*									1					
Stephen J. Capestro Park *Grandview Ave & Roosevelt Blvd*		4							1					
Thomas Edison State Park *Christie Street*														
Thomas Swales/Edison Commons *Park Way & Elm Street*		1					1		1					
Winter Street Park *George Avenue & Anita Avenue*		2							1				1	
Yelencsics Park *Woodbridge Avenue*	1	1	2			2	1	1	1	2		1		1

Source: Edison Township

Brownfields and Known Contaminated Sites



The Township of EDISON

Environmental Resource Inventory

KNOWN CONTAMINATED SITES

- Known Contaminated Site Beyond Municipal Boundary

Status

- Active
- NFA-A (Limited Restricted Use)
- NFA-A (Restricted Use)
- NFA-E (Limited Restricted Use)
- NFA-E (Restricted Use)
- Pending
- MOA Terminated

Note: Refer to text in ERI for definitions

1 in = 5,000 feet

Feet

0 2,500 5,000 10,000

Data Source: NJDEP, NJ-KCS 2009

N

February 2011

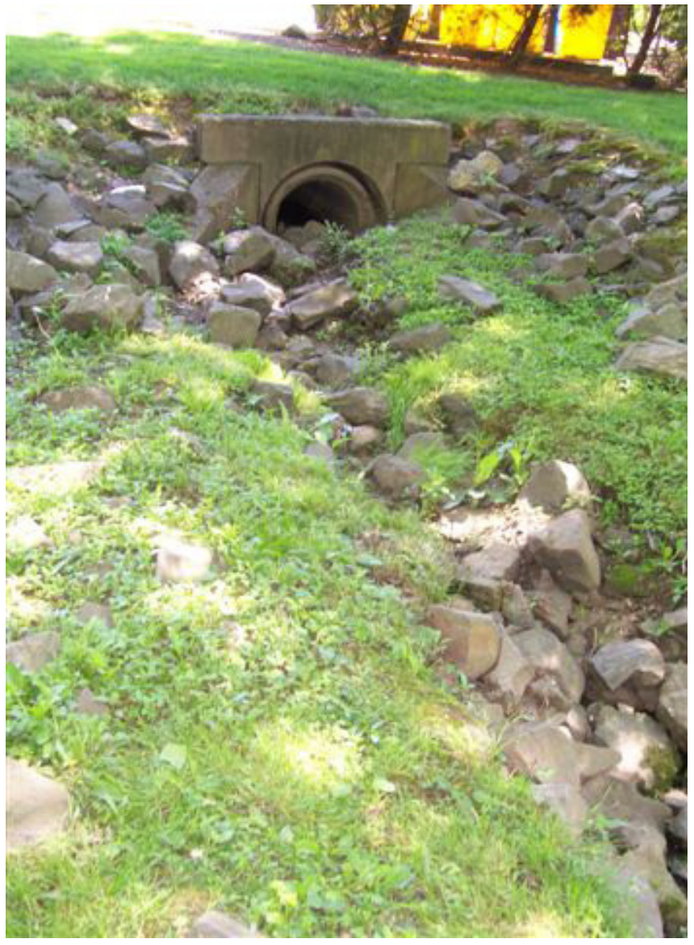
A brownfield is defined under NJ state law (N.J.S.A. 58:10B-23.d) as "any former or current commercial or industrial site that is currently vacant or underutilized and on which there has been, or there is suspected to have been, a discharge of a contaminant." While this is the definition recognized in state legislation, there are many variations on this definition. Generally, brownfields are properties that are abandoned or underutilized because of either real or perceived contamination.

Brownfields can be a mixed blessing. At best, they are an opportunity to turn blighted areas into community assets with much of the cost coming from state funds for brownfields' reclamation. At worst, they are contaminated sites without sponsors that hamper efforts for redevelopment, especially for any land use such as housing, schools or parks that would lead to human contact with the contaminants.

The NJDEP Site Remediation Program has an excellent website with information on brownfields (http://www.state.NJ.us/dep/srp/brownfields/). Much of the following information is from that website supported by information specific to Edison Township.

The NJDEP oversees some 23,000 contaminated sites. An estimated 10,000 of these are potential brownfield sites. Many more potential brownfields that may exist in the State are not yet before the Department for review. The NJDEP Known Contaminated Site List for 2009 listed 153 contaminated sites in Edison Township. Following the statewide estimate, those 153 sites could produce about 30 to 40 brownfield sites appropriate for redevelopment or recreation development in Edison Township.

NJDEP launched the "Brownfields to Greenfields" initiative in November 2002. That initiative encourages the restoration of Brownfield sites into recreational or natural areas. If a municipality, county or partnership wants to turn a Brownfield into a Greenfield; experienced NJDEP case managers can oversee remediation and revitalization efforts to help the locality comply with the Technical Requirements for Site Remediation. Assurance that the public is protected from any exposure is a key concern addressed by long-term monitoring and maintenance of engineering and institutional controls when required. Funding for remediation and acquisition may be available from other parts of NJDEP, such as the Green Acres Program.



The NJDEP works with the NJ Economic Development Authority (EDA) in the implementation of the Hazardous Discharge Site Remediation Fund (HDSRF). The legislature created the HDSRF in 1993 to provide loans and grants to municipal governmental entities, the New Jersey Redevelopment Authority (NJRA), and private parties. HDSRF funding is devoted to remediating discharges of hazardous substances. Over the past ten years, the HDSRF provided over $100,000,000 for remediation of over 1,000 sites. Municipalities may apply for grants and loans of up to $2 million per year for investigation and cleanup activities from the Hazardous Discharge Site Remediation Fund.

The New Jersey EDA plays a key role in financing these grants and loans, working with DEP to cover eligible costs and provide loan servicing. Grants are specifically provided to municipalities for a preliminary assessment (PA) and site investigation (SI) when a municipality holds the tax sales certificate or has foreclosed or has voluntarily acquired a property for redevelopment. Municipalities may obtain money to proceed with the remedial investigation (RI) if they own the property. (If, after conducting the PA/SI/RI, a municipality wants to conduct the cleanup, low interest loans are available).

Edison Township could benefit from this program by identifying contaminated sites, notifying NJDEP case managers and coming up with a plan for remediation. Often, sites can be cleaned and capped, and new surfacing for recreation areas can effectively "seal" the area. Recreation uses are also desirable for brownfields because one of the main concerns over re-use of sites is exposure. Recreation uses are almost by definition short-term exposures, a couple of hours at most for any activity, whereas residential development on re-use sites is more problematic due to prolonged exposure times on remediated sites.

Existing Brownfields and Landfills

Brownfields and landfills, polluted by former or ongoing uses, hold the potential for recreational open spaces. Several state and federal statutes regulate these sites, and a site can be regulated under more than one statute at the same time. The statutes are:

State

- Brownfield and Contaminated Site Remediation Act
- Industrial Site Recovery Act
- Solid Waste Management Act
- Spill Compensation & Control Act
- Underground Storage of Hazardous Substances Act
- Water Pollution Control Act

Federal

- Comprehensive Environmental Response, Compensation and Liability Act (Superfund)
- Superfund Amendments and Reauthorization Act
- Resource Conservation and Recovery Act Corrective Action Program

Known Contaminated Sites Inventory

United States Environmental Protection Agency (USEPA) Contaminated Sites Inventory

The EPA uses a wide variety of data to support environmental analysis and decision making. In Region 2 (New York, New Jersey, Puerto Rico and the United States Virgin Islands), GIS staff have work closely with other organizations at the local, state and federal levels to share or jointly develop critical data sets for environmental analysis.

The Environmental Protection Agency (EPA) is responsible for environmental oversight over a variety of industrial activities under many federal statutes including the Clean Air Act (CAA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), and Emergency Planning and Community Right-to-Know Act (EPCRA). These facility layers include the best available locations from EPA's Envirofacts, EPA's Facility Registry System (FRS), other EPA data systems, or enhanced points determined by EPA Region 2 staff.

- Aerometric Information Retrieval System/AIRS Facility Subsystem (AIRS/AFS) Permits in EPA Region 2 (Clean Air Act)
- Comprehensive Environmental Response , Compensation and Liability Information System (CERCLIS) Facilities in EPA Region 2 (Comprehensive Environmental Response, Compensation, and Liability Act)
- CERCLIS National Priority List (NPL) sites in EPA Region 2
- Permit Compliance System (PCS) Pipes in EPA Region 2 (Clean Water Act)
- Permit Compliance System (PCS) Facilities in EPA Region 2
- Resource Conservation and Recovery Act (RCRA) Permits in EPA Region 2: All Facilities
- RCRA Permits in EPA Region 2: Hazardous Waste Generators
- RCRA Permits in EPA Region 2: Hazardous Waste Transporters
- RCRA Permits in EPA Region 2: Treatment, Storage and/or Disposal Facilities
- Toxic Release Inventory (TRI) Reporting in EPA Region 2 (Emergency Planning and Community Right-to-Know Act)
- EPA Region 2 Surrounding Six States Regulated Facility GIS Information layer: All facilities

National Priorities List (NPL) / Superfund Sites

The National Priorities List (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation and which are to be classified as "Superfund Sites."

Currently, there are three Superfund Sites in Edison Township undergoing remediation. The Raritan Arsenal site is not designated as a Superfund Site; however, it too is undergoing cleanup. The following site narratives are directly sourced from the U.S. Environmental Protection Agency (EPA) Website. For more information visit: http://www.epa.gov.

EPA Site Narrative for Raritan Arsenal

Source: http://www.epa.gov/region02/superfund/npl/0203390c.htm
Info last updated: October 05, 2010

"The former Raritan Arsenal site, located in Middlesex County, New Jersey on the banks of the Raritan River, consisted of approximately 3,200 acres and was actively operated by the Army between 1917 and 1963. Operations at the site consisted of the receipt, storage, shipment and/or decommissioning of ordnance, arms and machinery. During this period, some waste materials including ordnance and chemical agents (mustard gas, red nitric acid, and miscellaneous chemicals) reportedly were buried on-site. Also, it has been reported that explosive materials were destroyed by surface burning or burning in chamber pits. Accidental explosions in magazine buildings and outdoor storage areas reportedly scattered explosive materials over large areas, and forced ordnance fragments into the ground. Studies by the Army and EPA have found volatile organic compounds, metals, pesticides and other contaminants in ground and surface water and soil at the site.

The site was decommissioned by the Army in 1963 at which time the Army conducted decontamination operations at the site as part of the phase-out process under the direction of personnel from the Letterkenny Army Depot (LEAD) and the Army Material Command Safety Office. LEAD designated 17 areas as potentially contaminated with ordnance and/or chemicals. Subsequently, the Army recommended that each area be designated as "unrestricted use", "surface use only", or "non-use" as deemed appropriate. Areas designated as "surface use only" and "non use" included pits possibly holding potassium cyanide and mustard gas containers, and areas which potentially contained live ordnance.

In 1964, the former Raritan Arsenal was turned over to the General Service Administration (GSA) for its use and disposal as excess property. GSA sold most of the property (approximately 2,900 acres) to private parties. In addition, approximately 250 acres were transferred to EPA for EPA's Edison Laboratory, while 20 acres to date still remain in GSA's possession. Much of the land sold to private parties comprises the Raritan Center [2,000 acres] (the re-developed land is mostly comprised of light industrial warehouse, and office space in Raritan Center (continuing development is occurring in this area). Other portions of the former arsenal include what are now Middlesex County College and Thomas Edison Park."

The site is being addressed through Federal actions; however, the current NPL determination is low priority based upon current draft removal guidance. Additionally, The State has requested that the EPA not list the site a Superfund Site on the National Priorities List. The Army's continued clean-up activities with the State as the "lead" regulatory agency overseeing the project are continuing to remediate the site. For more information visit: http://www.nan.usace.army.mil/business/buslinks/raritan/pdf/raritan0610.pdf.

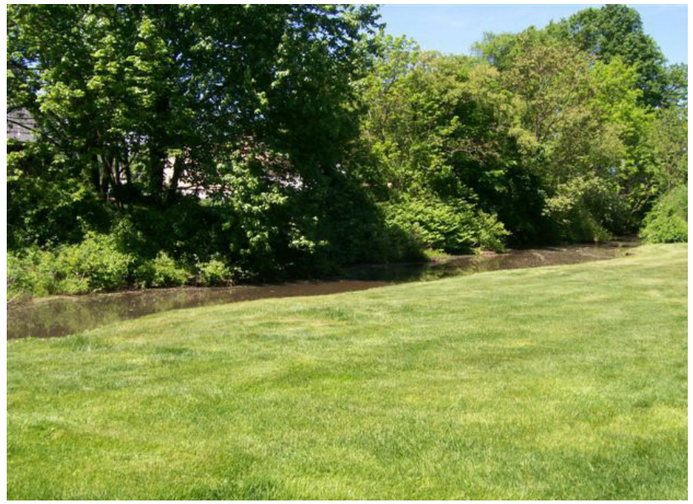
NPL Site Narrative for Kin-Buc Landfill

Source: http://www.epa.gov/superfund/sites/npl/nar92.htm
Info last updated: October 01, 2010
"Federal Register Notice: September 8, 1983

Conditions at listing (October 1981): Kin-Buc Landfill covers 20 acres in Edison Township, Middlesex County, New Jersey. It accepted 70 million gallons of various industrial wastes from about 1971 through 1976, when the State revoked its permit. Oil heavily laden with PCBs accumulates in a natural depression called "Pool C" adjacent to the landfill and then discharges into Edmund's Creek, a tributary of the Raritan River. The pond also holds aqueous leachate that contains chlorinated organic compounds and is believed to be coming from the landfill. Ground water is contaminated. As a result of Federal enforcement action, the owner capped the fill with a clay/synthetic cover.

In February 1980, EPA started to collect leachate in Pool C, with funds provided initially under Section 311 of the Clean Water Act and later under CERCLA.

Status (July 1983): A Superfund State Contract signed with New Jersey in July 1982 approved about $3 million to (1) design, construct, and operate an interim collection/treatment system, (2) dispose off-site of the drums of wastes collected and stored on-site, and (3) prepare a feasibility study to



identify alternatives for long-term remedial action. In September 1982, the owner took over operation of the Pool C collection system from EPA.
The Department of Justice, on behalf of EPA, is continuing a Federal civil action seeking injunctive relief against parties potentially responsible for wastes associated with the site."

NPL Site Narrative for Revlon Consumer Products Corporation
Source: http://www.epa.gov/region02/waste/fsrevlon.htm
Info last updated: December 08, 2010

"Site Description: The Revlon Incorporated (Revlon) Main Production Facility, formerly owned by Johnson and Johnson, operated at 55 Talmadge Road, on a 63.2-acre property in Edison, New Jersey from 1956 to 1999. Revlon manufactured lipstick, dusting powder, fragrances, toiletries, nail enamel, other make-up and their packaging at the facility. The company stored its cosmetic products (prior to packaging) in several underground and above-ground storage tanks on-site.

In 1985, when Revlon entered into a merger agreement for the Edison site with Nicole Acquisition Company, an environmental evaluation of the site was performed as required under the New Jersey Department of Environmental Protection (NJDEP) State Property Transfer Program. The facility was eventually sold to the present owner, Starwood Heller, L.L.C., in 1999, and changed its name to Revlon Consumer Products Corporation.

Potential Threats and Contaminants: The environmental investigation performed at the time of the merger revealed that some underground and above-ground tanks leaked their contents into the soil and, eventually, into the groundwater under the site. The soil and groundwater are contaminated with organic compounds including trichloroethylene, trichloroethane, acetone and 1,2-dichloroethene.

Cleanup Approach and Progress: The facility is being cleaned up under the New Jersey Department of Environmental Protection (NJDEP) State Property Transfer Program. Revlon excavated and properly disposed-of some of the contaminated soil. The rest was covered with asphalt and concrete to prevent potential contact with the contaminants and to protect them from the elements.

Revlon also installed and expanded a system of wells in the area of the groundwater contamination to remove the contaminants. This is done by pumping the groundwater out of the ground and removing the chemicals with air strippers and carbon filters. The treated groundwater is then discharged to the Middlesex County Utilities Authority treatment works.

Organic compounds were detected in indoor air samples at the location of the former manufacturing building and have been attributed to potential background interferences from furniture and carpet. In addition, the building is not currently occupied.

The contaminated soil at the site has been excavated or capped. Some additional soil investigation and indoor air testing is planned. Groundwater monitoring is being conducted and additional groundwater remedial system enhancements will be implemented to more effectively cleanup the groundwater. Groundwater treatment will continue until applicable standards have been achieved."

NPL Site Narrative for Chemical Insecticide Corporation
Source: http://www.epa.gov/region02/superfund/npl/0200517c.pdf
Info last updated: January 14, 2010

"Site History: The Chemical Insecticide Corporation (CIC) Site is located in Edison Township. CIC owned the property located at 30 Whitman Avenue from 1954 to 1970 and used it for processing various pesticides. In the mid-1960s, the Edison Department of Health became concerned about odors, wastewater discharges and on-site fires. The Department ordered the facility to stop discharging wastewater, oversaw disposal of leaking drums to eliminate an odor problem, and ordered the closing of on-site lagoons. CIC declared bankruptcy in 1970. Subsequently, Piscataway Associates bought the 6-acre CIC property and demolished the production facilities. As part of a State-wide dioxin screening program, the New Jersey Department of Environmental Protection sampled soil from the site and found contamination, triggering more detailed investigations by EPA. Approximately 77,000 people live within 3 miles of the site. There are no permanent surface water bodies on the CIC site. Surface water run-off drains toward the northeast corner of the site where it discharges into an underground conduit, which flows into an unnamed tributary of Mill Brook. The unnamed tributary and Mill Brook runs near the site and may have been used for recreation. The residents near these tributaries and the residents directly surrounding the site obtain potable water from a public water supply system located eight miles from the site. Groundwater underlying the site is considered by New Jersey to be a Class II-A, a source of potable water. No current exposures to contaminated groundwater are known. The nearest domestic potable water well used for drinking water is up-gradient to the southwest and approximately two miles from the site."

New Jersey DEP Known Contaminated Sites List 2009 (KCS-NJ)

The KCS-NJ report is a list of sites where contamination of soil and/or ground water is confirmed at levels greater than applicable cleanup criteria or environmental standards. The data included in the KCS-NJ report are as of December 11, 2009. The KCS-NJ report is produced by the New Jersey Department of Environmental Protection (NJDEP) Site Remediation and Waste Management Program (SRWM) in response to state law N.J.S.A. 58:10-23.16-17, which requires the SRWM to prepare a list of sites that have been contaminated by hazardous substances. The report also satisfies obligations under the New Jersey New Residential Construction Off-Site Conditions Disclosure Act (N.J.S.A 46:3C1 et seq.).

Sites included in the KCS-NJ report can undergo a wide variety of remedial activities, ranging from relatively simple "cut and scrape" cleanups to highly complex cleanups. The sites with complex contamination issues can have several sources of contamination, which can affect both soil and ground water at the same time. Several groups or remedial bureaus within the Site Remediation and Waste Management (SRWM) Program manage these cleanups. It is possible for more than one bureau to be involved at one site at the same time. A site being regulated under more than one statute or regulation often drives this scenario. However, this report lists only the main contact bureau for the site. The link available within this web site, titled "What Contact Bureaus Do," explains what types of sites each bureau manages and lists phone numbers for each bureau. Or, go to the section in the ERI titled Directory of Lead Agencies. For further information contact NJDEP's Site Remediation and Waste Management (SRWM) Program lead units, which are identified with each site listed in this database. Contact information for SRWM's lead program can be acquired at http://www.state.NJ.us/dep/srp. Cases range in classification from B (single media contaminated, usually soils, and no ground water contamination) to D (multiple media contaminated, including ground water, with significant complexity and potential off-site contamination).

Additionally, there are several status definitions. They are: Active - This status is designated when a contaminated site is assigned to a remedial program and remediation such as a preliminary assessment, site investigation, remedial investigation or remedial action activities are underway. Limited Restricted Use - Any remedial action for soil that requires the continued use of institutional controls but does not require the use of an engineering control in order to meet the established health risk or environmental standards. (N.J.A.C. 7:26E -1.8) NFA-A - An acronym for a no further action letter, which was issued after January 1, 1997 and covers only an area of concern at the site. NFA-E - An acronym for a no further action letter, which was issued after January 1, 1997 and covers the entire site. Restricted Use - Any remedial action for soil that requires the continued use of engineering and institutional controls in order to meet the established health risk or environmental standards. (N.J.A.C. 7:26E -1.8) Unrestricted Use - Any remedial action for soil that does not require the continued use of either engineering or institutional controls to meet the established health risk or environmental standards.

Known Contaminated Sites Table, 2009

Edison Township							
Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
1	290835	107 Roosevelt Boulevard	107 Roosevelt Blvd	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
2	G000040361	122 Michael St	122 Michael St	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	CEHA
3	2518	145 Talmadge Road Llc	145 Talmadge Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
4	G000034343	178 Old Post Road	178 Old Post Rd	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	CEHA
5	G000031650	1907 Oak Tree Road	1907 Oak Tree Rd	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
6	G000060387	209 Penn Avenue	209 Penn Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
7	G000034728	21 Janina Avenue	21 Janina Ave	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	CEHA
8	G000031798	271 Meadow Road	271 Meadow Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
9	224467	3 Garden Street	3 S Garden St	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
10	G000034287	30 Walton Street	30 Walton St	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	CEHA
11	G000038686	40 Runyon Avenue	40 Runyon Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
12	G000034336	8 Regent Court	8 Regent Ct	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
13	G000037497	87 Loring Ave	87 Loring Ave	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	CAS

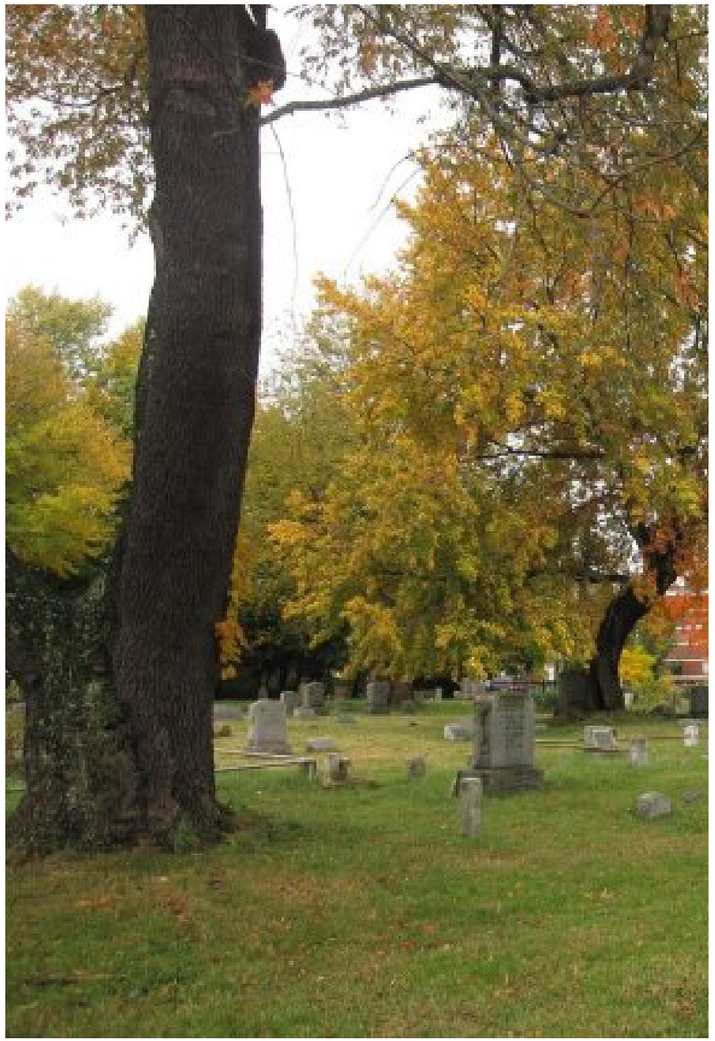
Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
14	G000034264	9 Gurley Road	9 Gurley Rd	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	CEHA
15	14266	Academy Die Casting & Plating Co	47 Langstaff Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
16	9741	Air Products & Chemicals Inc	1680 Oak Tree Rd	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BISR
17	2868	Akzo Nobel Chemicals Inc	Meadow Rd	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BISR
18	13927	Amerchol Corporation	136 Talmadge Rd	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BOMM
19	G000001411	American Bindery	191 Talmadge Rd	A: Sites with On-Site Sources of Contamination	Active	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	BISR
20	13875	American Can Company	108 Pierson Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
21	9561	B & L Tire	425 Plainfield Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
22	289960	Beechwood @ Edison	Woodbridge Ave	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BCM
23	9344	Berger Industries Inc	Edison Industrial Ctr & Rte 1 S	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BISR
24	91580	Big Joes Fuel Stop	700-720 Us Rt 1 North	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
25	10503	Bill's Service Center	2240 Woodbridge Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
26	4278	Borough Motors Inc (Former)	Rt 27	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BOMM

Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
27	1801	Bp Service Station 84856	2246 Lincoln Hwy - Rt 27 & 287	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
28	229491	Camp Kilmer	433 Plainfield Ave	A: Sites with On-Site Sources of Contamination	Active	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	BCM
29	457867	Campbell Supply Co Inc	Talmadge Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
30	G000002108	Cary Chemicals Incorporated	60 Mayfield Rd	A: Sites with On-Site Sources of Contamination	Active	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	BISR
31	1871	Center Realty	Bldg 420 Raritan Center Ind Pk	A: Sites with On-Site Sources of Contamination	Active	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	BCM
32	4161	Central Gas Plant	410 Silver Lake Ave	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BCM
33	G000004383	Chemical Insecticide Corporation	125 Whitman Ave		Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BIDC
34	13425	Citgo	979 Amboy Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
35	165488	Clausen Co	1049 1055 King George Post Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
36	32400	Community Presbyterian Church	75 Glenville Rd	A: Sites with On-Site Sources of Contamination	Active	B: Single Phase RA - Single Contamination Affecting Only Soils	INS
37	15854	Con-Lux Coatings Inc	226 Talmadge Rd	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BISR
38	6315	Cumberland #120256	1699 Oak Tree Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
39	132	Curcio Bus Service Inc	655 King Georges Post Rd	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified- Potential GW Contamination	BSCM

Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
40	1096	De Falco Service Station	233 Plainfield Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
41	32747	Delta Station	1065 Amboy Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
42	2499	Edison Assembly Plant Former	939 Rt 1	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BISR
43	1808	Edison Bp	421 435 Rt 1 S	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
44	26619	Edison Job Corps Center	500 Plainfield Ave	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BSCM
45	1755	Edison Krauzer	2279 Woodbridge Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
46	266658	Edison Mall	755 765 Rt 1	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
47	3290	Edison Moving & Storage	110 Rte 1	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
48	7031	Edison Research Laboratory	2195 Rt 27	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
49	G000000544	Edison Township Municipal Landfill	Meadow Rd	A: Sites with On-Site Sources of Contamination	Active	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	OBR
50	1145	Electrolux Home Products	2170 Rte 27	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
51	6480	Express Fuel	2042 Rte 27	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
52	7967	Exxon R/S 32271	1441 Rte 1 S	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM

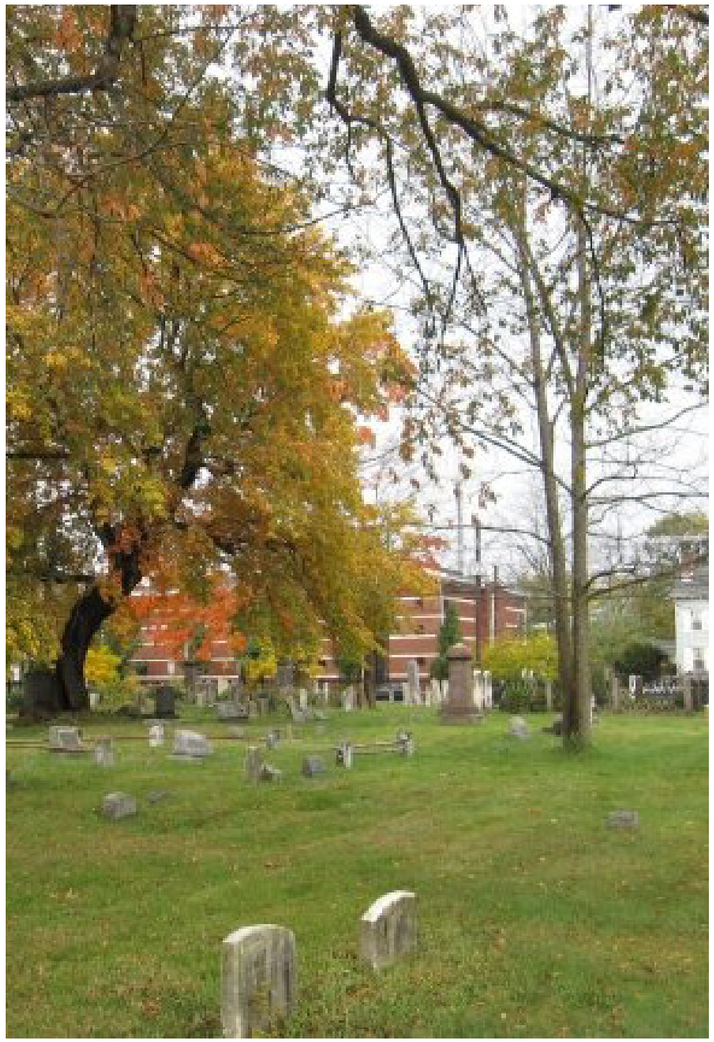
Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
53	8640	Exxon R/S 38909	641 Rte 1 S & Wooding Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
54	264845	Federal Business Centers @ Raritan Center	225 Raritan Center Pkwy	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BCM
55	6475	Frank Millman Distributors Inc	8 Progress St	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
56	1242	Fuel One	279 Rt 1 & Oakland Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
57	G000002700	Garon Products Incorporated	Raritan Center Pwy	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
58	1704	Getty 00498	Rt 1 & John St	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
59	14496	H B Fuller Co	59 Brunswick Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	CAS
60	12683	Hess Station 30205	Rte 27 & Parsonage Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
61	8412	Hess Station 30268	789 Amboy Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
62	3929	Huls America Inc	40 Nixon Ln	A: Sites with On-Site Sources of Contamination	Active	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	BISR
63	G000003809	Ideal Gas Products Incorporated	977 New Durham Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
64	G000004416	Ilr Sanitary Landfill	Mill Rd	A: Sites with On-Site Sources of Contamination	Active	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	OBR
65	19580	Inman Sports Club	990 Inman Ave	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BCM

Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
66	7403	Inman Texaco	1171 Inman Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
67	G000034291	Jersey Truck Sales Former	842 N Rt 1	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
68	G000041302	Kew Corporation	304 Raritan Center Pky	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BCM
69	G000002953	Kin Buc Landfill	383 Meadow Rd	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BOMM
70	5902	Krauszer's Dairy Inc	76 National Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
71	G000008372	Ktk Steel Drum Corporation	65 Meadow Rd		Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BIDC
72	236109	Lamp Cleaners	9 Lincoln Hwy	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
73	6292	Lukoil #57208	1709 Oak Tree Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
74	3794	Lukoil #57317	2193 Rt 27 & Vineyard Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
75	531	Lukoil 57238	1620 Oak Tree Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
76	2994	Mandys Incorporated	24 Vineyard Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
77	13881	Menlo Park Veterans Memorial Home	132 Evergreen Rd	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BSCM
78	G000000873	Metex Corporation	206 Talmadge Rd	A: Sites with On-Site Sources of Contamination	Active	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	BISR



Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
79	11982	Middlesex Cnty College	155 Mill Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
80	6935	Middlesex Co Mosquito Exterm Comm	200 Parsonage Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
81	5197	Motor Machine Co Inc	1956 Woodbridge Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
82	195349	Nj Infectious Disease Assoc	113 James St	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
83	2851	Oak Tree Bus Service Inc	2091 Oak Tree Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
84	2141	Open Road Honda-Bmw-Isuzu	50 Rte 1	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
85	20850	Petro Stop Inc	1951 Rt 27	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BSCM
86	14084	Pharmaceutical Formulations Inc	460 Plainfield Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
87	3723	Price Club #234	2210 Rt 27 N	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
88	422869	R & D Circuits Inc	9 Olsen Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
89	31392	Rabbi Pesach Raymon Yeshiva	2 Harrison St	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BSCM
90	880	Raceway	1501 S Rt 1	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
91	8789	Raceway	1555 Rte 27	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM

Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
92	2512	Raritan Oil Company Inc	401 Rte 1 S	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
93	3116	Raritan Periodical Sales	125 Clearview Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
94	33876	Raritan Supply Co	301 Meadow Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
95	11157	Raritan Valley Bus Service	115 S Main St	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
96	4956	Revlon Consumers Products Corp	55 Talmadge Rd	A: Sites with On-Site Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BISR
97	12727	Roosevelt Hospital	Roosevelt Dr & Parsonage Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
98	7033	Rt 27 Well	1818 Lincoln Hwy	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
99	992	Service Station 842 Former	Rte 1 N & Plainfield Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
100	4741	Shell Service Station 138339	1819 Rte 27 & Plainfield Ave	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
101	5218	Shell Service Station 138342	33 Rte 27	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
102	4787	Shell Service Station 138343	764 Durham Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
103	10961	Skip-Ron Inc	265 Plainfield Ave & Rt 27	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
104	92097	Sports Expressions	711 721 S Rt 1	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM



Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
105	7188	Sunoco #0258-1973	3875 Park Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
106	16446	Sunoco 0007-7297	1808 Woodbridge Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
107	2108	Superior Energy Equipment Corp	41 Glendale Ave	A: Sites with On-Site Sources of Contamination	Active	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
108	22150	The New York Times	3001 3003 Woodbridge Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
109	12732	Thomas A Edison County Park	Mill Rd & 1 Patrol Rd	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
110	24491	Torsiello And Sons Inc	27 Progress St	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
111	3103	Transport Motor Systems Inc	100 Rte 1 N	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
112	G000041281	Twin Bridge Incorporated	1000 Industrial Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BISR
113	6021	Usepa Edison Facility	2890 Woodbridge Ave	B: Sites with Unknown Sources of Contamination	Active	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BCM
114	4751	Wasseem Gas & Go Inc	881 Rt 1 S	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
115	9732	Winsor Street Associates	165 Fieldcrest Ave	A: Sites with On-Site Sources of Contamination	Active	C2: Formal Design - Known Source or Release with GW Contamination	BCM
116	437	Amboy Avenue Texaco	960 Amboy Ave	C: Closed Sites with Restrictions	NFA-A (Limited Restricted Use)	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
117	3699	Automatic Catering/Food Concepts	58 Brunswick Ave	C: Closed Sites with Restrictions	NFA-A (Limited Restricted Use)	C2: Formal Design - Known Source or Release with GW Contamination	BOMM

Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
118	G000005280	Auxilec Air Equipment Incorporated	3920 Park Ave	C: Closed Sites with Restrictions	NFA-A (Limited Restricted Use)	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	BOMM
119	7672	Exxon R/S 35405	240 Rt 27 & Wood Ave	C: Closed Sites with Restrictions	NFA-A (Limited Restricted Use)	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
120	8697	Exxon Store 3-2582	3115 Woodbridge Ave	C: Closed Sites with Restrictions	NFA-A (Limited Restricted Use)	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
121	22142	First Union National Bank	2850 Woodbridge Ave	C: Closed Sites with Restrictions	NFA-A (Limited Restricted Use)	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
122	G000040490	Oak Tree Center Mall	1665 Oak Tree Dr	C: Closed Sites with Restrictions	NFA-A (Limited Restricted Use)	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
123	12737	Roosevelt County Park	Oakwood Ave	C: Closed Sites with Restrictions	NFA-A (Limited Restricted Use)	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
124	23525	Somfy Systems (Tenant)	2 Sutton Pl	C: Closed Sites with Restrictions	NFA-A (Limited Restricted Use)	C2: Formal Design - Known Source or Release with GW Contamination	BOMM
125	G000031231	180 Raritan Center Parkway	180 Raritan Center Pwy	C: Closed Sites with Restrictions	NFA-A (Restricted Use)	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	BOMM
126	G000030114	Prince Street Properties	14 To 16 Patrick Ave	C: Closed Sites with Restrictions	NFA-A (Restricted Use)	B: Single Phase RA - Single Contamination Affecting Only Soils	BOMM
127	G000002880	Continental Can Company	24 Kilmer Rd	C: Closed Sites with Restrictions	NFA-E (Limited Restricted Use)	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	BOMM
128	G000003569	Renora Incorporated	83 Main St	C: Closed Sites with Restrictions	NFA-E (Restricted Use)	D: Multi-Phased RA - Multiple Source/Release to Multi-Media Including GW	BOMM

Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
129	439921	10 Southfield Road	10 Southfield Rd		Pending	B: Single Phase RA - Single Contamination Affecting Only Soils	BER-II
130	G000011325	131 Gross Avenue	131 Gross Ave		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
131	G000010159	26 Reed Street	26 Reed St		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
132	G000027882	3 Dey Place	3 Dey Pl		Pending	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
133	G000022011	35 Markham Road	35 Markham Rd		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
134	32130	53 Brunswick Ave	53 Brunswick Ave		Pending	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
135	G000021635	7 Ramsey Road	7 Ramsey Rd		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
136	G000025537	9 Dayton Road	9 Dayton Rd		Pending	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
137	34037	95 S Main Street	95 S Main St		Pending	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
138	2297	American Metal Moulding Co	8 Taylor Rd		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
139	5547	Automatic Rolls Metroplex Properties	1 Gormet Ln		Pending	C2: Formal Design - Known Source or Release with GW Contamination	BSCM
140	C2	Baxter Healthcare Corp	120 Raritan Center Parkway	B: Sites with Unknown Sources of Contamination	Pending	C2: Formal Design - Known Source or Release with GW Contamination	PENDING
141	19227	Edison Crossing Associates	3100 Woodbridge Ave (Rte 514)		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS

Map ID	PI Number	Name	Address	Source of Contamination	Status	Remedy Level	Lead Agency
142	G000009665	Edison Generator Exchange	785 Rte 1		Pending	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
143	16331	Edison State Police Station	2667 Woodbridge Ave		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BSCM
144	C3	General Cable Corporation	160 Fieldcrest Ave	B: Sites with Unknown Sources of Contamination	Pending	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	PENDING
145	G000009811	International Foods Incorporated	505 Old Post Rd		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS
146	G000033386	Jackson & Gibian Street	Jackson & Gibian St		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BISR
147	G000001173	Metex Technical Products	970 New Durham Rd		Pending	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
148	G000004249	Regal Beloit Corporation	55 National Rd		Pending	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	RPIU
149	8807	Reydel Volkswagen	2034 Rt 27	B: Sites with Unknown Sources of Contamination	Pending	C2: Formal Design - Known Source or Release with GW Contamination	INS
150	G000009891	Transamerica Leasing Incorporated	2350 Woodbridge Ave		Pending	C2: Formal Design - Known Source or Release with GW Contamination	RPIU
151	C3	United Stationers Supply Company	75 Executive Ave	B: Sites with Unknown Sources of Contamination	Pending	C3: Multi-Phased RA - Unknown or Uncontrolled Discharge to Soil or GW	PENDING
152	G000002603	Us Land Resources Incorporated	330 Talmadge Rd		Pending	C2: Formal Design - Known Source or Release with GW Contamination	BFOS
153	G000021576	35 Ashley Road	35 Ashley Rd	A: Sites with On-Site Sources of Contamination	MOA Terminated	C1: No Formal Design - Source Known or Identified-Potential GW Contamination	BFOS

Directory of Lead Agencies

Bureau of Investigation, Design & Construction (BIDC) oversees remediation of contaminated sites. This is a publicly funded entity.

Bureau of Industrial Site Remediation (BISR) oversees primarily active contaminated "Industrial Site Recovery Act" (ISRA) cases until a No Further Action (NFA) or a Remedial Action Workplan (RAW) is approved and oversees the implementation of approved RAW's. BISR is located within the Responsible Party Remediation Element.

Bureau of Case Management (BCM) oversees complex remedial activities that are conducted by responsible parties (usually current or former site owners or operators, but sometimes waste generators that are linked to pollution of a landfill or other contaminated site). In addition, BCM has the authority to use public funds for remedial activities, when responsible parties are recalcitrant or where immediate environmental concern situations exist and a willing or able responsible party does not exist. These sites involve multiple environmental media and/or contaminants and include ground water contamination. Remedial activities are conducted under the federal Superfund program, the Resource Conservation and Recover Act (RCRA) Corrective Action program, the New Jersey's Brownfield and Contaminated Site Remediation Act, the Spill Compensation and Control Act, the Solid Waste Management Act and the Water Pollution Control Act.

Bureau of Southern Case Management (BSCM – formerly BUST) primarily oversees environmental cleanups at sites subject to the Underground Storage of Hazardous Substances Act where remediation may involve soil and/or ground water. Sites under this program are also subject to the state's Brownfield and Contaminated Site Remediation Act, the Spill Compensation and Control Act, the Solid Waste Management Act and the Water Pollution Control Act.

Bureau of Operation, Maintenance & Monitoring oversees the long-term operations and maintenance of remedial actions such as ground water pump and treatment systems. BOMM also reviews biennial certification reports to ensure institutional controls, such as a Deed Notice and Classification Exception Area, remain effective.

Bureau of Field Operations – Southern (BFOS) is responsible for overseeing the remediation of sites located in counties of southern New Jersey, including Middlesex. The types of cleanups handled by BFO-S are considered moderate in remedial complexity, ranging from the remediation of a single source of contamination to several sources. The cleanup may include ground water contamination. Remediation are conducted, by responsible parties, under the state's Brownfield and Contaminated Site Remediation Act, the Spill Compensation and Control Act, the Solid Waste Management Act, the Water Pollution Control Act, the Industrial Site Recovery Act and the Underground Storage of Hazardous Substances Act.

County Environmental Health Agency (CEHA) NJDEP has authorized certain county health departments to oversee remedial activities that involve residential home heating oil tanks that have not impacted ground water. However, No Further Action letters are still issued by the Department. The participating counties are Bergen, Camden and Hudson, but not Middlesex. In addition, all 21 counties are approved to receive certain low environmental concern cases for review and possible investigation when appropriate.

Initial Notice Section (INS) reviews initial applications and other administrative submissions for sites regulated under the Industrial Site Recovery Act and the Underground Storage of Hazardous Substances Act. If a site regulated under either of these two laws, has minimal environmental concerns and requires limited remedial measures, INS oversees the completion of these activities. If there are significant environmental concerns then INS forwards the case to the respective bureau based on the appropriate regulations. Only two sites in Edison Township are on the current listing.

Case Assignment Section (CAS) assigns sites to the appropriate bureau within the Site Remediation and Waste Management Program and enters this information into the SRWM database. These assignments are based on regulatory requirements, environmental complexity, and the presence of an oversight document.

Office of Brownfield Reuse (OBR) coordinates the remediation and reuse efforts at abandoned or underutilized commercial or industrial sites where known or suspected contamination is a deterrent to redevelopment. As a member of the Governor's Brownfields Redevelopment Task Force and the Brownfields Interagency Team, OBR works closely with other State agencies to promote the redevelopment of brownfield sites and encourage Smart Growth practices. OBR staff also manages area-wide remediation projects, which include designated Brownfield Development Areas, and innovative pilot approaches to expedite the revitalization process such as the Cleanup Star Program. Only two sites in the Township are listed with the OBR.

Air Facility Subsystem, NJ

The system contains the locations of stationary sources of air pollution that are regulated by the U. S. EPA, state and local air pollution agencies

based on Aerometric Information Retrieval System - Air Facility Subsystem (AIRS/AFS) maintained by the US EPA. This information is used to prepare State Implementation Plans (SIPs), to track the compliance status of point sources with various regulatory programs, and report emissions estimates for pollutants regulated under the Clean Air Act.

Registry ID	Name	Address	Operating & Compliance Status	Last Update
110000322035	Amerchol Corp	136 Talmadge Rd	Permanently Closed & In Compliance	7-Jan-11
110030539497	Apco Extruders	180 National Rd	Currently Operating & and Unknown Compliance Status	1-Apr-08
110015126745	Astra Cleaners	1905A Rte 27	Permanently Closed & In Compliance	20-Jun-07
110002359171	Basf Corp Edison Technology Center	2195 Route 27 And Vineyard Road	Permanently Closed & In Compliance	19-Mar-10
110002359171	Crompton & Knowles Corp Davis Standard Div	38 Brunswick Avenue	Permanently Closed & In Compliance	26-Mar-09
3402390002	Cumberland Farms #61563	555New Durham Rd.@ Stelton Rd	Currently Operating & See State/County Run Program	17-Mar-10
110038964591	Mid Florida Mining	185 National Road	Permanently Closed & In Compliance	17-Jun-03
110007931596	Mobil Chemical Co R&D Laboratories	2195 Highway 27 And Vineyard Road	Currently Operating & Meeting Compliance Schedule	13-Aug-10
110002092404	Nj Buddhist Cultural Center	47 Langstaff Avenue	Currently Operating & See State/County Run Program	1-Apr-08
110000321982	Shorewood Packaging Corp	180 Talmadge Road	Permanently Closed & In State Compliance	1-Apr-08
110001539979	Starwood Heller Corp	55 Talmadge Road	Currently Operating & Meeting State Compliance	19-Mar-10
110022400427	Victoria Classics	2170 Lincoln Hwy	Permanently Closed & In State Compliance	26-Mar-09

Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) or Superfund for the United States

The CERCLIS Database is the Comprehensive Environmental Response, Compensation and Liability Information System that contains information on hazardous waste sites, potentially hazardous waste sites and remedial activities across the nation. This program is also known as Superfund. However, there are no NPL Sites in Edison Township.

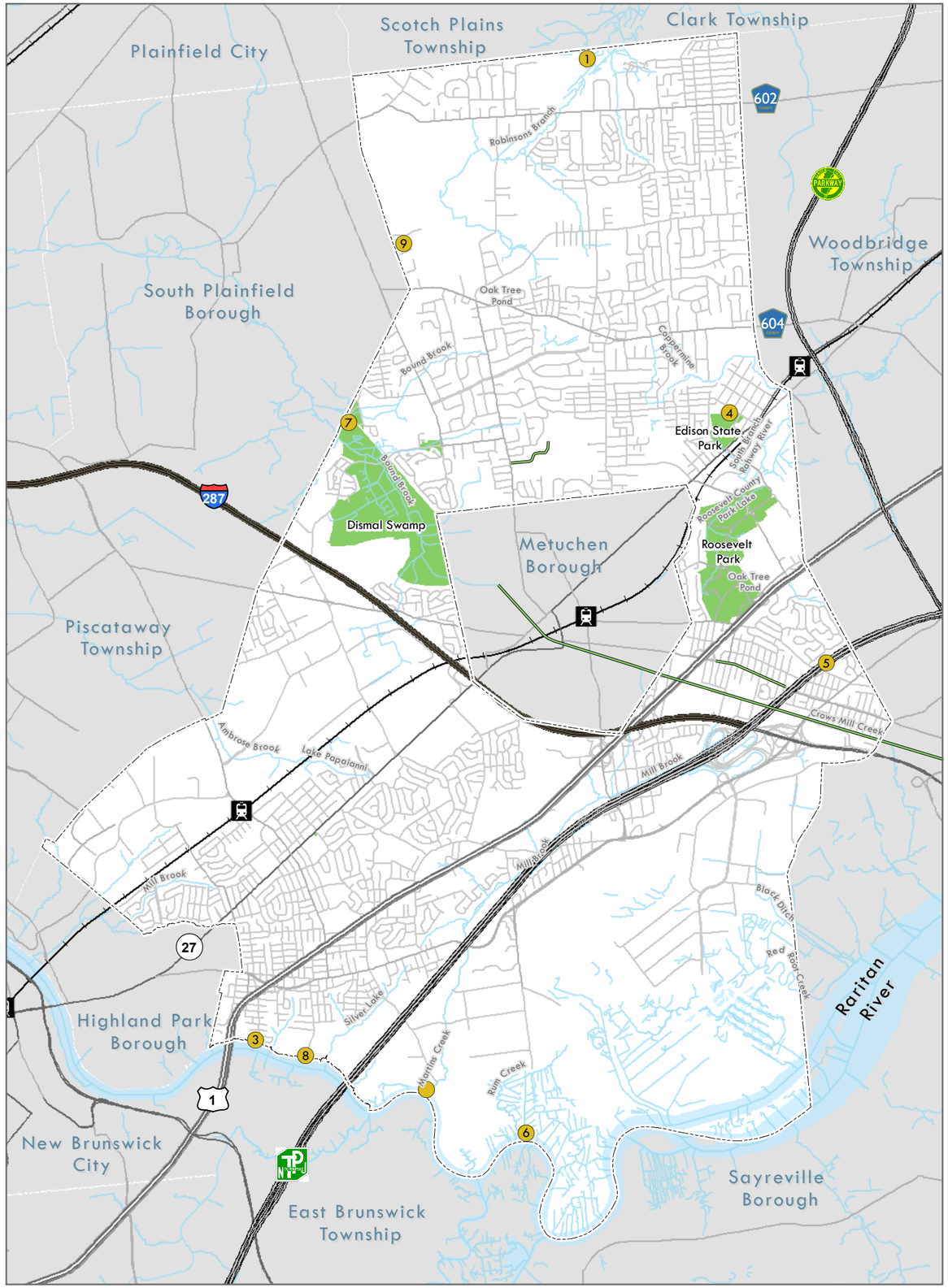
CERCLIS Facility			
EPA Identifier	**Name**	**Address**	**Status**
Njd980593404	Mobil Chemical Co R&D Laboratories	2195 Highway 27 and Vineyard Road	Not on the NPL

Scenic Resources

Edison Township regards its scenic views, areas and historic places as important natural resources and they are greatly valued. They provide opportunities for passive recreation and sightseeing and can be a source of civic pride. During the Environmental Resource Inventory process, the public was invited to recommend scenic resources they considered special. At a public meeting in February 2011, a group of residents came up with the following list of resources.

Scenic Points	
Map ID	**Name**
1	Ashbrook Swamp
2	Boat Basin
3	Edison Boat Club
4	Edison Tower
5	Grandview Ave Overlook (water tower
6	Raritan River Walkway
7	Triple C Ranch
8	White Rock
9	Woodland Ave Estate
Scenic Areas	
	Dismal Swamp
	Edison State Park
	Roosevelt Park
Scenic Corridors	
	Amboy Avenue
	Lehigh Valley Railroad Greenway
	Oak Grove Lane

Policy initiatives such as ordinances or land development regulations and standards could be designed to ensure preservation of the scenic value of designated areas, such as identification of permissible adjacent land uses, location of heights of structures, establishment of "scenic easements," landscaping requirements, access controls, signage, and plac3ement of utilities. Active beautification and management measures could include landscaping within the public right-of-way, establishment of speed limits along designated scenic routes, the potential for multi-use of a scenic roadway such a bikeways and pedestrian walkways, the design and placement of information and directional signs, and needed roadway improvements.



The Township of EDISON

Environmental Resource Inventory

SCENIC RESOURCES

Open Water

Scenic Points

Scenic Corridors

Scenic Areas

1 in = 5,000 feet

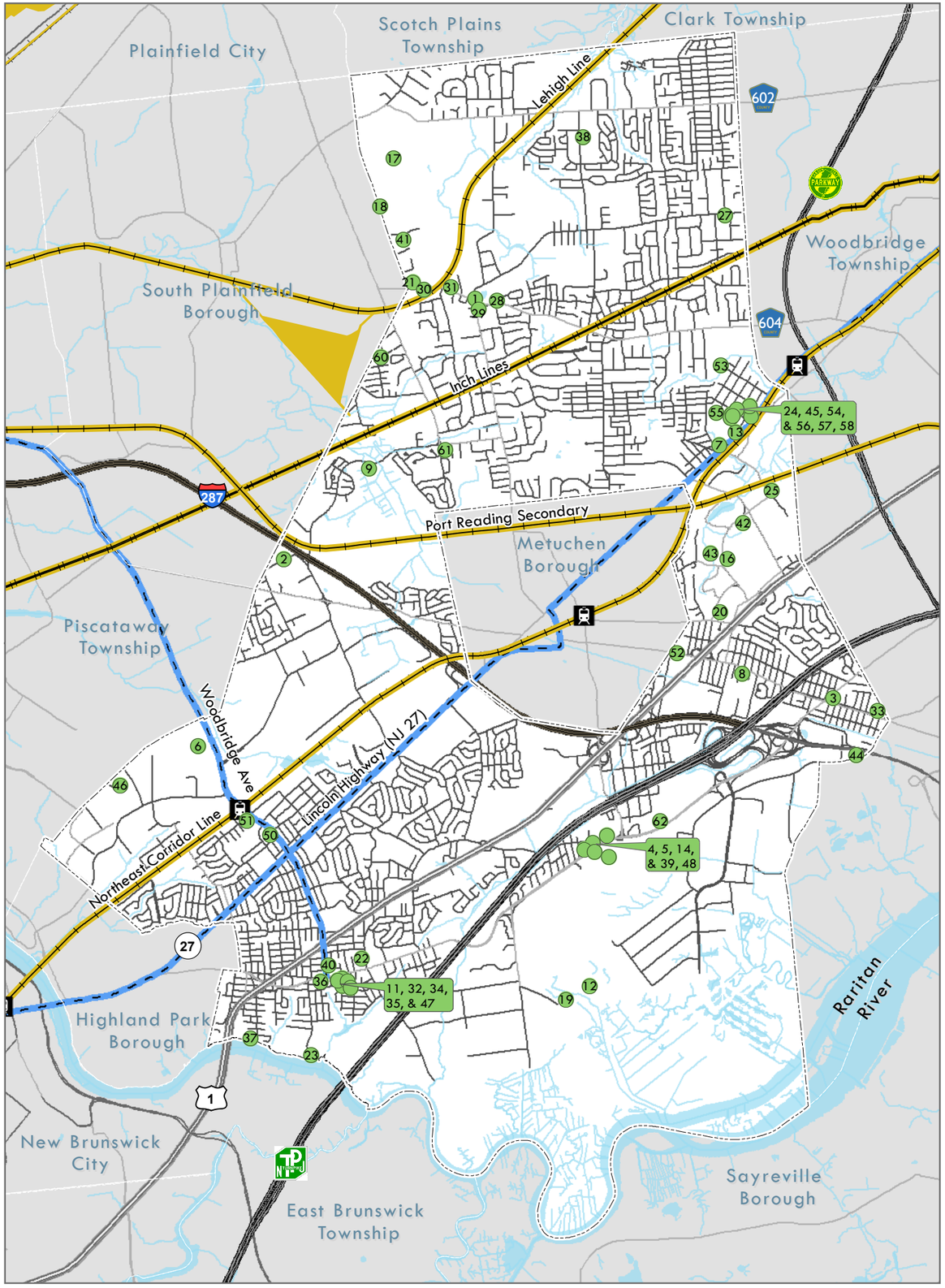
5,000 2,500 0 5,000 Feet

Data Source: NJDEP, NJGS

N

November 2010

Historic Resources



The Township of EDISON

Environmental Resource Inventory

HISTORIC RESOURCES

- Historic Sites
- Historic Rail Districts
- Historic Corridors

1 in = 5,000 feet

5,000 2,500 0 5,000 Feet

N

Data Source: NJDEP, National Historic Registry, State Historic Registry, & Township of Edison Master Plan

November 2010

Introduction

Historic Properties include prehistoric and historic archeological sites, historic districts, buildings, structures, objects and the historic environment in which they exist. The historic structures, districts and archeological sites around us add drama and interest to the physical setting which New Jersey citizens inhabit today by providing a sense of continuity with the past. Edison Township has a number of historic resources that are worth preserving because they provide a physical link to the past, contributes to the sense of community in the present and offer a degree of continuity as the Township advances into the future. Historic preservation contributes to attractive streetscapes, stable neighborhoods, economic development and increased property values.

History of Middlesex County

Middlesex County was designated in 1683 as one of the East Jersey's four original counties along with Bergen, Essex and Monmouth. Early patterns of settlement were found along the most important transportation routes – the Raritan River and two roads following old Indian paths: Upper Road/King's Highway, which is now Route 27, and the Lower Road, which is George's Road. The county was mainly agrarian in the 17th and early 18th centuries. Industrialization in the later part of the 18th century, powered y the area's many streams, continued into the nineteenth century industrialization leading to the growth of many urban areas. By the twentieth century, the northeastern and central parts of the county became largely urbanized. Meanwhile, the rest of the County remained preliminarily rural, with established villages and towns being in filled with buildings of late nineteenth and twentieth century construction.

History of Edison Township

Edison, formerly known as Raritan Township, was first settled in the late 1600's, when it was part of Woodbridge and Piscataway townships. Its first families included the Dunhams, Martins, Bonhams, Hulls and FitzRandolphs, to whom land grants were given.

Many of these names live on in the community in the form of street names and section names. But people have lived in the Edison area since prehistoric times. Skull and bone fragments from the Stone Age have been discovered in the Piscatawaytown area, and arrowheads and cooking implements, ascribed to Native Americans living in the area, were found in an archeological dig in the Dismal Swamp.

Old Post Road, the earliest public road in eastern New Jersey, passes through Edison and is said to have been used by President George Washington as he traveled through the state on the way to his inauguration in New York City in April 1789.

A re-enactment of that journey took place in Edison on April 13, 1989, during the celebration of the bicentennial of Washington's first inauguration. His route was retraced, and special ceremonies were held at the historic St. James Church on Woodbridge Avenue.

The Bonhamtown area of Edison, on Old Post Road, is named after Nicholas Bonham, a freeholder from 1682 to 1683. The hamlet is said to have been the site of an old Native American village and later a Continental Army camp and battleground during the Revolutionary War.
As early as 1693, Bonhamtown served as the seat of justice for Middlesex and Somerset counties. By 1834, the village featured 10 to 12 dwellings, two taverns, a store and a schoolhouse.

Revolutionary War skirmishes took place in Bonhamtown, Piscatawaytown and along what is now Woodbridge Avenue. In fact, the St. James Episcopal Church building served as a hospital for wounded British soldiers during the war. Six British soldiers killed in one of the area's skirmishes are buried in the cemetery at the church.

In 1777, the local militia engaged in a battle with British and Hessian troops who were advancing toward Gen. Washington's troops. Washington's troops had taken refuge in the nearby Watchung Mountains. This battle, which is part of the Battle of Short Hills, is known as The Oak Tree Engagement. It took place at the intersection which is now Oak Tree and Plainfield roads.

Edison is also home to the second oldest Baptist Church in New Jersey and the 10th oldest in the nation. Stelton Baptist Church was formed in the spring of 1689, and among its original members was the Stelle family, after whom the Stelton section of Edison is named. Through 1875, however, the church was known as the First Baptist Church of Piscataway. The church's tercentennial was celebrated in 1989.

Edison grew in the second half of the 19th century as the attractiveness of the rural landscape became more accessible with the opening of the Pennsylvania Railroad and the Easton and Amboy lines. By the late 1800's, many residents commuted to jobs in New York and other parts of New Jersey.

One of the many passengers carried on the Pennsylvania line to Edison was Thomas Alva Edison, later to be known as the "Wizard of Menlo Park". It is said that he chose the Menlo Park site for his laboratories because it was the highest point along the Pennsylvania Railroad between New York and Philadelphia. The establishment of Thomas Edison's industrial research laboratory - he preferred calling it his "invention factory" - in 1876 brought global fame to the township as it became the site for some of the most innovative research and manufacturing feats in world history.

While there, Thomas Edison invented items that led to for than 400 patents. These Menlo Park inventions include the phonograph, the electric railway (which incidentally, ran along present day Middlesex Avenue) and the incandescent lamp. Christie Street, on which the Edison Memorial Tower now stands, was the first street to be illuminated by incandescent lamps, and Mrs. Jordan's Boarding House, home to many of Thomas Edison's workers, was the first residence to be lighted that way. When Edison moved out of Menlo Park, the buildings fell into delapidation, and the labratory was even used as a chicken coop for a while before it fell down.

In 1937, the Edison Memorial Tower was erected to commemorate the years Thomas Edison spent at Menlo Park. In 1986, the Edison Township Historical Society erected 12 period street lamps surrounding the tower to commemorate the illumination of Christie Street. The Edison Memorial Tower is located on the National Register of Historic Places. During the first part decade of the 21st century, the township has placed a renewed focus on reviving this historical gem. Fundraising campaigns are ongoing to restore the Tower and develop a Thomas Edison educational center and museum.

From a rural-residential community in the 1920's, Edison has grown in population, commercial and industrial center. It ranks as the fifth largest municipality in New Jersey.

In 1954, a group of citizens proposed a change in the name of the township, partially because of the confusion arising from the fact that several municipalities in the state were named Raritan. The name the voters selected was Edison. The name voters denied was Nixon.
Raritan Center, located in the southeast section of Edison, is the largest industrial park, east of the Mississippi River. The daytime population of Raritan Center is approximately 45,000, rivaling the population of many nearby communities.

Edison serves as home to more than 100,000 residents and is a hub of rail and highway networks for the distribution of numerous goods and services.

This history of Edison, however, is more than a collection of facts and figures, chronologies of events and even a rich inventory of historic sites and buildings. It is a rich and varied legacy of the people groups, institutions and organizations that have helped form the community into what it is today.

Inventory of Historic Sites

The table below corresponds with the Historic Resources map, on the page opposite. The inventory of Historic Sites is a grouping of sites identified in the Master Plan as well as on the State and National historic registries.

Map ID	Name	Source
1	Battle of Short Hills, site of Oak Tree Engagement	SHPO 3-23-2001
2	Benjamin Shotwell House (1775)	NR 6-4-1987 (Ref.# 87000875) & SR 4-28-1987
3	Bloomfield Manor (Amboy Avenue)	Master Plan - Potential Historic Resources - table 13.2-1
4	Bonhamtown Hotel	Master Plan - Potential Historic Resources - table 13.2-1
5	Bonhamtown School	Master Plan - Potential Historic Resources - table 13.2-1
6	Camp Kilmer Military Reservation Historic District	Master Plan - Potential Historic Resources - table 13.2-1
7	Carmen's Pond	Master Plan - Potential Historic Resources - table 13.2-1
8	Clara Barton School	Master Plan - Potential Historic Resources - table 13.2-1
9	Dismal Swamp	Master Plan - Potential Historic Resources - table 13.2-1
10	Dunham Burial Ground (Baldwin Road)	Master Plan - Potential Historic Resources - table 13.2-1
11	Dunham House	Master Plan - Potential Historic Resources - table 13.2-1
12	Edison Facility (Raritan Arsenal)	SHPO 9-22-1988
13	Francis Upton's House	Master Plan - Potential Historic Resources - table 13.2-1
14	Grace Reformed Church	Master Plan - Potential Historic Resources - Table 13.2-2
15	Homestead Farm at Oak Ridge	Master Plan - State & Fed Registers - table 13.3-1
16	John E. Toolan Kiddie Keep Well Camp	Master Plan - Potential Historic Resources - table 13.2-1
17	John P. Stevens Estate	Master Plan - Potential Historic Resources - table 13.2-1
18	Laing House of Plainfield Plantation	NR 10-27-19 (Ref.# 88002124) & SR 3-23-1988
19	Lewis Nixon (Thomas A. Edison County Park)	Master Plan - Potential Historic Resources - table 13.2-1
20	Light Dispelling Darkness Fountain	Master Plan - Potential Historic Resources - table 13.2-1
21	Marconnier Chapel (Woodland Avenue)	Master Plan - Potential Historic Resources - table 13.2-1
22	Martin House (Old Post Road)	Master Plan - Potential Historic Resources - table 13.2-1
23	Martin's Dock	Master Plan - Potential Historic Resources - table 13.2-1
24	Menlo Park School (old schoolhouse)	Master Plan - Potential Historic Resources - table 13.2-1
25	Menlo Park Veteran's Memorial Home	Master Plan - Potential Historic Resources - Table 13.2-2 & SHPO 7-20-1994
26	Mundy House	Master Plan - Sites Eligible for Natl Register - Table 13.3-2
27	New Dover United Methodist Church	Master Plan - Potential Historic Resources - table 13.2-1
28	Oak Tree School (Oak Tree Road)	Master Plan - Potential Historic Resources - table 13.2-1
29	Oak Tree School House (Marion Street)	Master Plan - Potential Historic Resources - table 13.2-1
30	Oak Tree Train Station Site	Master Plan - Potential Historic Resources - table 13.2-1
31	Old Oak Tree Firehouse	Master Plan - Potential Historic Resources - table 13.2-1
32	Old Town Hall Site	Master Plan - Potential Historic Resources - table 13.2-1
33	Our Lady of Peace Church (and school)	Master Plan - Potential Historic Resources - Table 13.2-2
34	Piscatawaytown Burial Ground	Master Plan - Potential Historic Resources - table 13.2-1
35	Piscatawaytown Commons	Master Plan - Potential Historic Resources - table 13.2-1

Map ID	Name	Source
36	Piscatawaytown School	Master Plan - Potential Historic Resources - table 13.2-1
37	Player Avenue Theatrical City	Master Plan - Potential Historic Resources - table 13.2-1
38	Potters Crossing/Edler Park	Master Plan - Potential Historic Resources - table 13.2-1
39	Raritan Arsenal (Post HQ)	Master Plan - Potential Historic Resources - table 13.2-1
40	Raritan Engine Co. #1 (1st Firehouse)	Master Plan - Potential Historic Resources - table 13.2-1
41	Robert T. Stevens Estate	Master Plan - Potential Historic Resources - table 13.2-1
42	Roosevelt Hospital	NR 3-5-2002 (Ref.# 02000109) & SR 1-9-2002
43	Roosevelt Park	Master Plan - Potential Historic Resources - table 13.2-1
44	Sand Hills School	Master Plan - Potential Historic Resources - table 13.2-1
45	Sarah Jordan Boarding House Site (Christie Street)	Master Plan - Potential Historic Resources - table 13.2-1
46	Smalley Burial Ground (Camp Kilmer)	Master Plan - Potential Historic Resources - table 13.2-1
47	St. James Episcopal Church	COE 1-17-1990
48	St. Margaret Mary Alacoque Roman Catholic Church	Master Plan - Potential Historic Resources - Table 13.2-2
49	Stelton Post Office Site	Master Plan - Potential Historic Resources - table 13.2-1
50	Stelton School	Master Plan - Potential Historic Resources - table 13.2-1
51	Stelton Train Station	Master Plan - Potential Historic Resources - table 13.2-1
52	The Amboy Avenue Trolley	Master Plan - Potential Historic Resources - table 13.2-1
53	The Edison Copper Mine	Master Plan - Potential Historic Resources - table 13.2-1
54	The Thomas and Mary Edison Home	Master Plan - Potential Historic Resources - table 13.2-1
55	The Thomas Edison Electric Railway	Master Plan - Potential Historic Resources - table 13.2-1
56	Thomas A. Edison Memorial Tower	SR 11-30-1995 (Ref.# 79001505) & SR 10-9-1979
57	Thomas Edison's Laboratory	Master Plan - Potential Historic Resources - table 13.2-1
58	Thomas Edison's Office Electric Railway	Master Plan - Potential Historic Resources - table 13.2-1
59	VanBuskirk House	Master Plan - Sites Eligible for Natl Register - Table 13.3-2
60	White Russian Settlement (Nevsky Street)	Master Plan - Potential Historic Resources - table 13.2-1
61	Woodbrook Farms (Park Avenue & Talmadge Road)	Master Plan - Potential Historic Resources - table 13.2-1
62	Yelenscics Homestead	Master Plan - Potential Historic Resources - table 13.2-1
Historic Corridors and Railroads Districts		
	Lincoln Highway (NJ 27)	
	Woodbridge Avenue (Route 529)	
	Lehigh Valley Railroad Historic District	SHPO 3-15-2002
	Inch Lines Linear Multistate Historic District	SHPO 8-31-1993
	Port Reading Railroad Historic District	SHPO 3-15-2002
	Pennsylvania Railroad New York to Philadelphia Historic District	SHPO 10/2/2002

NJSHPO Historic Places List Descriptions

- Battle of the Short Hills. Location of the June 26, 1777 Revolutionary War Battle that occurred between British/Hessian forces under Generals Howe, and Cornwallis, and Americans under the Command of General Stirling. The Americans delayed the British long enough to prevent the surrounding of the American Army at Quibbletown.

- Camp Kilmer. Named after poet and World War I veteran Joyce Kilmer. Built in 1942. During World War II, more than 2 million men shipped out through Camp Kilmer on their way to the battlefronts of WWII. Also used during Korean Conflict. In 1956 Hungarian Refugees were housed here.

- Edison Facility. Raritan Arsenal. Built during World War I and operated until 1964. The Raritan Arsenal stored and shipped millions of tons of munitions for the US Army.

- Thomas Edison Tower. Built in 1938 this Art-Deco tower, commemorates the site of Thomas Edison's Laboratory at Menlo Park.

- Homestead Farm At Oak Ridge. This farmhouse was originally built around 1730 by the Smith Family. In 1776 during the American Revolution William Smith killed a British officer who was attacking his daughter. The house was later owned by the Bowne and Robinson's families.

- Inch Lines. Built during World War II, to ship Texas oil to refineries in New Jersey. The "Big Inch" and the "Little Big Inch" were the first long distance petroleum pipelines in the US.

- Laing House. The colonial era farmhouse and barn of a Quaker Family.

- Lehigh Valley RR. Was a major railroad that brought coal from Pennsylvania to the dock of Perth Amboy, and Jersey City.

- Menlo Park Veterans Home. This site has been demolished and replaced with a new building.

- Oak Tree Engagement Site. Located at Oak Tree & New Dover Rds, this was the site of one of the opening engagements of the Battle of the Short Hills.

- Pennsylvania RR. First built in the 1830's this is the main railroad through Edison.

- Port Reading RR. Was built in the 1890's to haul coal from Pennsylvania to the docks in Woodbridge.

- Roosevelt Hospital. Opened in 1937, as a tuberculosis hospital. It is a fine example of Colonial Revival architecture that was popular for public buildings in the 1930's.

- St. James Church. Built in 1724, was used by the British as a hospital and barracks during the Revolutionary War. It was rebuilt in 1835 after a tornado destroyed the neighborhood.

- Benjamin Shotwell House. Built by Benjamin Shotwell around 1775, later owned by the Runyon family until 1946. It was also known as Happy Valley Farm.

Further Readings and Resources

- Natural Resource Inventory
  (Township of Edison, 1992)
- Open Space acquisition Plan Volume I & II
  (Township of Edison, 2000)
- Open Space and Recreation Plan
  (Middlesex County, 2003)
- Master Plan, Township of Edison
- Raritan River Strategy
- Recreation and Open Space Inventory
  (Township of Edison, 2007)
- Dismal Swamp Conservation Area Management Plan
  (Edison Wetlands Association, 2009)
- Breeding Bird Abundance and Distribution in the Lower Raritan
  (New Jersey Audubon Society, 2009)
- Great American Comeback: The return of the Bald Eagle to Middlesex County, New Jersey
  (Edison Wetlands Association, Inc.,)
- The Birds of Middlesex County, New Jersey
  (Edison Wetlands Association, Inc.)
- Former Raritan Arsenal Site
  (Army Corps of Engineers)
- Sustainable Raritan River Collaborative, Action Report 2009-2010
  (Rutgers University, 2010)