

Somerville Borough Natural Resource Inventory

Somerset County
New Jersey

February, 2016

NRI was prepared with funding assistance provided by the Regional Center Partnership of Somerset County.

Cole & Associates, LLC
3986 Princeton Pike
Lawrenceville, NJ 08648

Michael Cole, PP, PE, AICP, CME, CPG
Professional Planner License # 5620

Table of Contents

Introduction	1
I. Physical Features.....	2
A. Location	
B. Physiographic Provinces of New Jersey	
C. Topogarchy	
D. Climate	
E. Geology	
F. Soils	
II. Cultural Resources	23
A. Cultural Heritage	
B. Historicall/Architectural Significance	
C. National and State Registers of Historic Site and Districts	
III. Biological Resources.....	28
A. Biodiversity	
B. Forest Cover	
C. Critical Habitat Protection	
D. Threatened & Endangered Species Habitat	
E. Priority Species Habitat	
F. Natural Heritage Priority Sites	

IV. HydroGeology54

- A. Aquifers
- B. Depth to Water Table
- C. Groundwater Recharge Areas
- D. Well Head Protection Areas
- E. Surface Water
- F. Watersheds and Sub-Watersheds
- G. Wetlands
- H. Floodplains
- I. Vernal Pools

V. Land Use61

- A. Existing Land Use
- B. Zoning
- C. Parks and Open Space

VI. Infrastructure.....65

- A. Transportation
- B. Water and Sewer Systems

Appendix.....66

Maps

Introduction

ANJEC (Association of New Jersey Environmental Commissions) defines a Environmental Resource Inventory (ERI), also called a Natural Resource Inventory (NRI), or Index of Natural Resources, as “a compilation of text and visual information about the natural resource characteristics and environmental features of an area. An ERI is an unbiased report of integrated data. It provides baseline documentation for measuring and evaluating resource protection issues. The ERI is an objective index and description of features and their functions, rather than an interpretation or recommendation. Identifying significant environmental resources is the first step in their protection and preservation. The ERI is an important tool for environmental commissions, open space committees, planning boards and zoning boards of adjustment”.

The Planning Board has adopted ERI as a conservation element of the master plan. The ERI is a dynamic document, not cast in concrete. The ERI is a notebook of the accumulated information about area. The ERI provides the environmental features of the Borough using federal, state and county data and covers climate, geology, geography/topography, soils, hydrology, vegetation, wildlife and habitat, critical areas and land use.

I. Physical Features

A. Location

The Borough of Somerville is the County Seat and is centrally located in Somerset County. The Borough is bordered by Raritan Borough to the west, Bridgewater Township to the north and east and Hillsboro Township to the south.

The Borough of Somerville is part of the Somerset Regional Center (Somerville, Raritan Borough and a portion of Bridgewater Township) and is within the New York metropolitan area. The Somerset County Regional Center was designated by the State Planning Commission on May 29, 1996. Currently the adopted State Policy Plan Map shows Somerville with its high density as a Planning Area 1 or Metropolitan Planning Area. The Borough of Somerville is a 2.36 square mile municipality interlaced with state, county highways, the Peters and Ross Brooks, and borders the Raritan River. The historic Borough established in 1909 has less than 6% or 85 acres of unconstrained land that can be developed.

B. Physiographic Provinces of New Jersey

New Jersey's landscape has formed during more than a billion years of geologic processes such as mountain building, erosion, and deposition. This history has given the State distinctive landforms that are divided into four regions (Salisbury, 1898, p. 5), known as physiographic provinces. Beginning in the northwest and proceeding these regions are called the Valley and Ridge, Highlands, Piedmont and Coastal Plain Provinces.

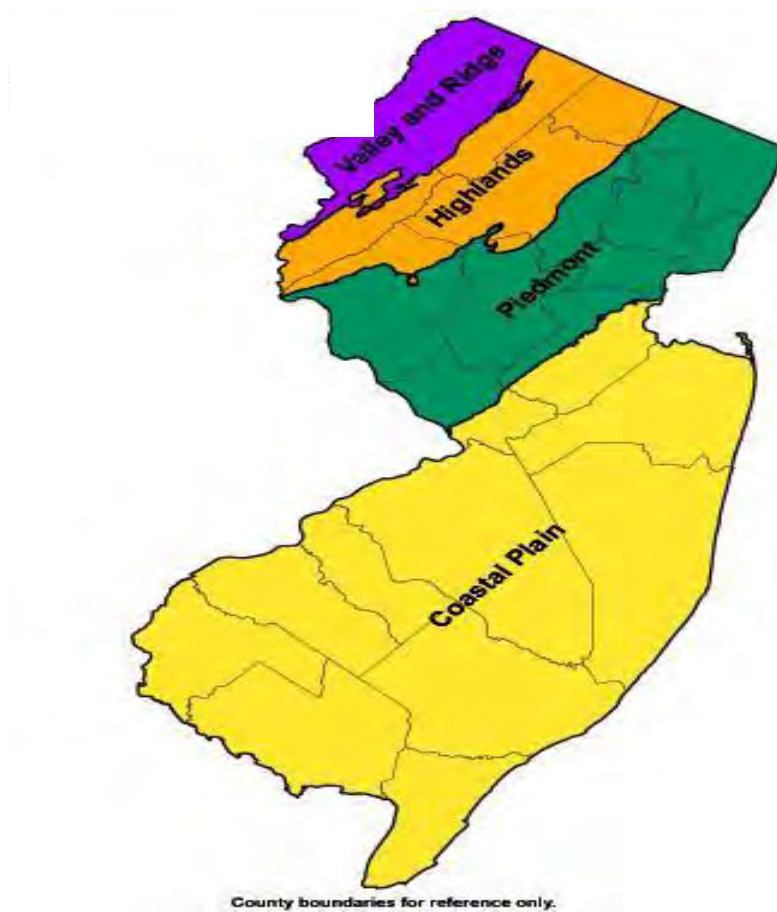
The Valley and Ridge Province, with an area of approximately 536 square miles occupies a major portion of Sussex and Warren Counties and is characterized by steep-sided, linear ridges and broad valleys.

The Highlands Province occupies an area of approximately 980 square miles and lies within the the southeastern portions of Hunterdon, Morris and Passaic and small parts of Bergen and Somerset. In general its rugged topography consists of a series of discontinuous rounded ridges separated by deep narrow valleys.

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 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 of Jurassic age. The Piedmont is chiefly a low rolling plain divided by a series of higher ridges. The Borough of Somerville is located within the Piedmont Province.

The Coastal Plain occupies about three-fifths of the state, it includes all of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Monmouth, Ocean and Salem Counties and parts of Mercer and Middlesex. The unconsolidated deposits of the Coastal Plan dip gently to the southeast and range in age from the upper Lower Cretaceous to Miocene (90 to 10 million years old). Source: NJGS Information Circular entitled "Physiographic Provinces of New Jersey).

Figure1. Physiographic Provinces of New Jersey



Source: New Jersey
Geological Survey (NJGS)

C. Topography

Topography is defined as to the three-dimensional arrangement of physical attributes (such as shape, height, and depth) of a land surface in a place or region. Physical features that make up the topography of an area include mountains, valleys, plains, and bodies of water. Human-made features such as roads, railroads, and landfills are also often considered part of a region's topography and as the detailed description or drawing of the physical features of a place or region, especially in the form of contour maps (definition from thefreedictionary.com)

Based upon review of the USGS Bound Brook Quadrangle, the topography of Somerville Borough ranges between 40 and 80 feet above sea level. The NJDEP generally defines steep slopes as “Steep Slopes” means any slope equal to or greater than 20 percent as measured over any minimum run of 10 feet. Steep slopes are determined based on contour intervals of two feet or less. The percent of slope (rise in feet per horizontal distance) shall be established by measurement of distance perpendicular to the contour of the slope. The percent of slope shall be calculated for each two-foot contour interval. For example, any location on the site where there is a one-foot rise over a 10-foot horizontal run constitutes a 10 percent slope; a 1.5 foot rise over a 10-foot horizontal run constitutes a 15 percent slope; a two foot rise over a 10-foot. The exception of the difference in elevation between the top and bottom of the stream banks for the Peters and Ross Brook and for portions of the Raritan River, the Borough does not contain steep slopes.

D. Climate

According to the Office of New Jersey State Climatologist (ONJSC) at Rutgers University, New Jersey is located about halfway between the Equator and the North Pole, on the eastern coast of the United States. Its geographic location results in the State being influenced by wet, dry, hot, and cold airstreams, making for daily weather that is highly variable.

The Garden State is 166 miles long from north to south, and its greatest width is about 65 miles. While this may not seem too large, there is a marked difference in climate between Cape May in the south and the Kittatinny Mountains of northwestern New Jersey.

Based upon the map prepared by ONJSC, the Borough of Somerville on the border between Northern and Central Zone climate zones found in NJ. The ONJSC describes these two climate zones as the following:

1. Northern Climate Zone

The Northern climate zone covers about one-quarter of New Jersey and consists mainly of elevated highlands and valleys which are part of the Appalachian Uplands. Surrounded by land, this region can be characterized as having a continental type of climate with minimal influence from the Atlantic Ocean, except when the winds contain an easterly component. Prevailing winds are from the southwest in summer and from the northwest in winter.

Being in the northernmost portion of the state, and with small mountains up to 1800 feet in elevation, the Northern Zone normally exhibits a colder temperature regime than other climate regions of the State. This difference is most dramatic in winter when average temperatures in the Northern Zone can be more than ten degrees Fahrenheit cooler than in the Coastal Zone. Annual snowfall averages 40 to 50 inches in the northern zone as compared with an average of 10-15 inches in the extreme south.

A storm track extending from the heart of the Mississippi Valley, over the Great Lakes, and along the St. Lawrence Valley is a major source of precipitation for this region. Coastal storms, with precipitation shields that reach well enough inland add to the precipitation totals.

The highlands and mountains in this area play a role in making the climate of the Northern Zone different from the rest of the state. Clouds and precipitation are enhanced by orographic effects. For instance, following a cold frontal passage, air forced to rise over the mountains, produces clouds, and even precipitation, while the rest of the state observes clear skies. The latter is due in part to subsiding air flowing off the highlands.

During the warm season, thunderstorms are responsible for most of the rainfall. Cyclones and frontal passages are less frequent during this time. Thunderstorms spawned in Pennsylvania and New York State often move into Northern New Jersey, where they often reach maximum development in the evening. This region has about twice as many thunderstorms as the coastal zone, where the nearby ocean helps stabilize the atmosphere.

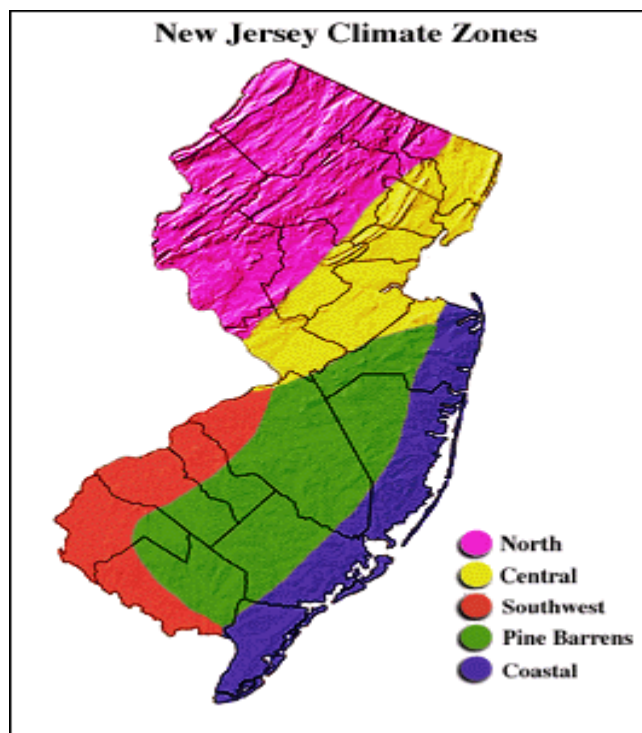
The Northern Climate Zone usually has the shortest growing season, about 155 days. The average date for the last killing spring frost is May 4. The first frost in Fall is around October 7. The exact dates vary significantly within the region as well as from year to year. Some valley locations have observed killing frost in mid-September and as late as mid-June.

2. Central Climate Zone

The Central Zone has a northeast to southwest orientation, running from New York Harbor and the Lower Hudson River to the great bend of the Delaware River in the vicinity of Trenton. This region has many urban locations with large amounts of pollutants produced by the high volume of automobile traffic and industrial processes. The concentration of buildings and paved surfaces serve to retain more heat, thereby affecting the local temperatures. Because of the asphalt, brick, and concrete, the observed nighttime temperatures in heavily developed parts of the zone are regularly warmer than surrounding suburban and rural areas. This phenomenon is often referred to as a "heat island".

The northern edge of the Central Zone is often the boundary between freezing and non-freezing precipitation during wintertime. In summer, the northern reaches often mark the boundary between comfortable and uncomfortable sleeping conditions. Areas to the south of the Central Zone tend to have nearly twice as many days with temperatures above 90 degrees F than the 15-20 commonly observed in the central portion of the state.

Figure 2 NJ Climate Zones



Source: ONJSC

E. Geology

The physiographic provinces stated above are the overall geologic view of NJ. As previously stated, the Borough of Somerville lies within the Piedmont Province. A detailed geologic description of Piedmont Province stated by the New Jersey Geological Survey (NJGS) is as follows:

Rocks of the Piedmont Province are separated from the rocks of the Highlands Province by a series of major faults, including the Ramapo Fault. The more resistant gneisses and granites on the upthrown northwest side of the faults make a prominent escarpment, 200 to 800 feet in height, extending from Mahwah through Boonton and Morristown to Gladstone, and from there westward in an irregular line to the Delaware River near Milford. South and east of this escarpment, interbedded sandstone, shale, conglomerate, basalt, and diabase of the Piedmont Province underlie a broad lowland interrupted by long, generally northeast-southwest trending ridges and uplands. The rocks of the Piedmont are of Late Triassic and Early Jurassic age (230 to 190 million years old). They rest on a large, elongate crustal block that dropped downward in the initial stages of the opening of the Atlantic Ocean -one of a series of such blocks in eastern North America. These down-dropped blocks formed valleys known as rift basins. Sediment eroded from adjacent uplands was deposited along rivers and in lakes within the basins. These sediments became compacted and cemented to form conglomerate, sandstone, siltstone, and shale. They commonly have a distinctive reddish-brown color.

In the course; of rifting, the rock layers of the Piedmont became tilted nonhwestward, gently folded, and cut by several major faults. Volcanic activity was also associated with the rifting, as indicated by the basalt and diabase interlayered with the sandstone and shale. Diabase is a rock fanned by the cooling of magma at some depth in the crust: basalt is fanned by cooling of an identical magma that has been extruded onto the surface as lava. Both basalt and diabase are more resistant to erosion than the enclosing sandstone and shale and therefore they form ridges and uplands. The Palisades, Rocky Hill, Sourland Mountain, and Cushtunk Mountain are underlain by diabase layers. .The Watchung Mountains, Long Hill, and Hook Mountain are underlain by basalt layers. Valleys and lowlands between these ridges are underlain by shale and sandstone.

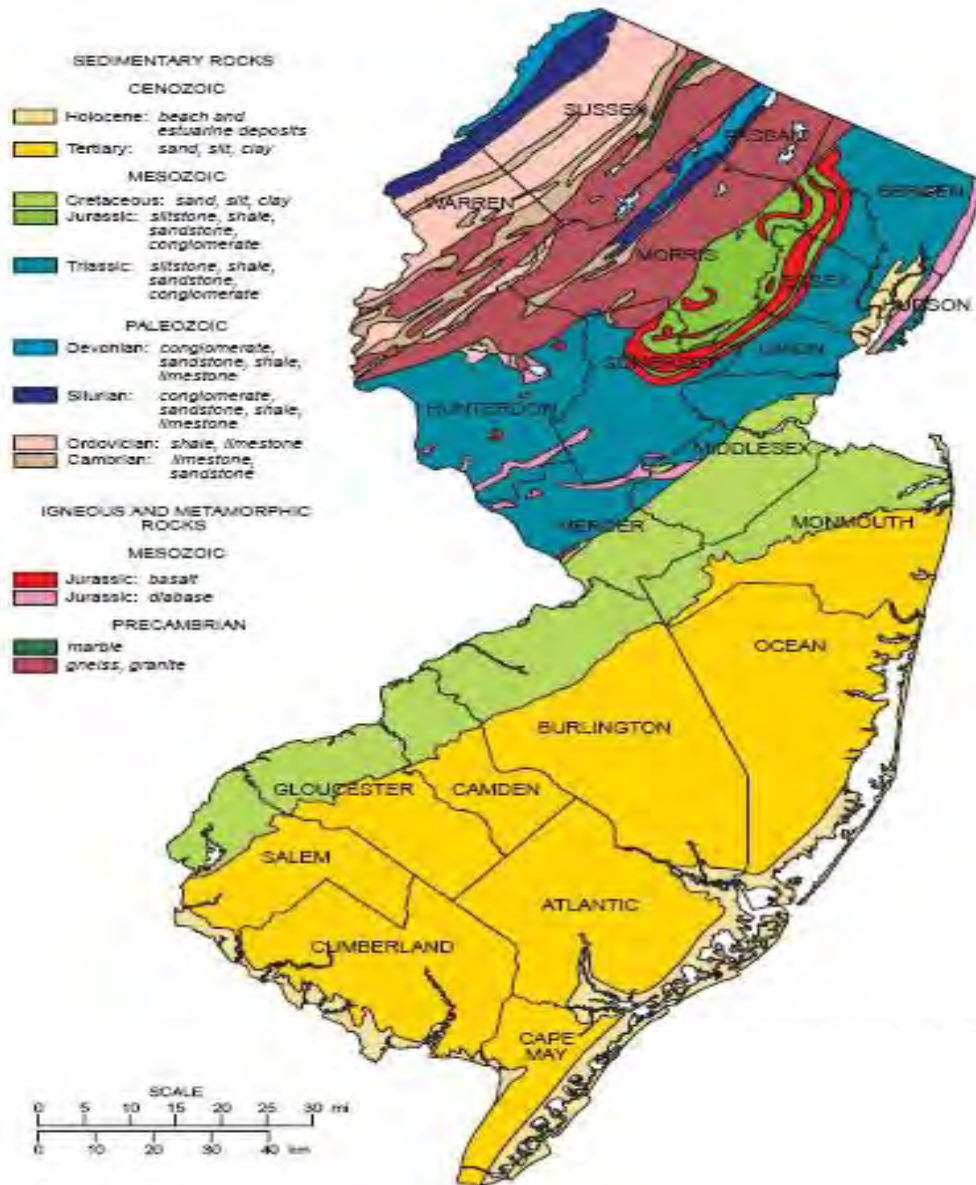
The basalt and diabase are extensively quarried foc crushed stone. In the past, "brownstone" was widely quarried from sandstone units. Also, minor quantities of copper were extracted from sandstone and shale associated with the diabase and basalt The basalt and diabase generally are poor aquifers but the sedimentary rocks are, in places, capable of yielding large quantities of water.

Upon review of the bedrock geologic map of the of the Bound Brook Quadrangle (approximately 95% of Somerville is depicted within this quadrangle) Somerset and Middlesex Counties , NJ, prepared by both the USGS and NJGS, the bedrock is from the Lower Jurassic and Upper Triassic Period and are composed of the Passaic formation. The geologic map of the Bound Brook Quadrangle describes the Passaic Formation as the following:

“Passaic Formation (Lower Jurassic and Upper Triassic, Olsen, 1980a)- Interbedded sequence of reddish-brown, and less commonly, maroon or purple, fine- to coarse-grained sandstone, siltstone, shaly siltstone, silty mudstone (JTrp), and mudstone, separated by olive-gray, dark-gray, or black siltstone, silty mudstone, shale, and silty argillite (TRpg). Top of unit in the map area is marked by as much as 4ft. of massive, coarse-grained sandstone directly beneath Orange Mountain Basalt. Reddish-brown sandstone and siltstone are thin- to medium-bedded, planar to cross-bedded, micaceous, and locally mud cracked and ripple cross-laminated. Root casts and load casts are common. Shaly siltstone, silty mudstone, and mudstone are fine-grained, very thin- to thin-bedded, planar to ripple cross-laminated, locally fissile, bioturbated, and contain evaporite minerals. They form rhythmically fining- upward sequences as much as 15 ft. thick. Thickness of gray bed sequences ranges from about 1 ft. to 40 ft. As much as 2 ft. of unit has been thermally metamorphosed along the contact with the Orange Mountain Basalt (Jo). Regionally is as much as 11,480 ft. thick but only about 5,800 ft. occur in the map area. Levels of natural radioactivity measured in reddish-brown siltstone and shaly siltstone range from 8 to 24 (mean=17) Micro R/Hr, reddish-brown and purple silty mudstone and mudstone range from 10 to 20 (mean=16) Micro R/Hr, and in gray siltstone, silty mudstone and shale range from 14 to 27 (mean=20) Micro R/Hr”.

Figure 3. Geology of NJ

Source: NJDEP Division of Science, Research & Technology, Geological Survey (1999)



F. Soils

Based upon the Soil Survey of Somerset County, NJ, prepared by the US Department of Agriculture Soil Conservation Service, the following soil types are found in Somerville;

BhnB—Birdsboro silt loam, 2 to 6 percent slopes

Map Unit Setting

Elevation: 200 to 1,000 feet

Mean annual precipitation: 36 to 50 inches

Mean annual air temperature: 46 to 57 degrees F

Frost-free period: 140 to 200 days

Map Unit Composition

Birdsboro and similar soils: 85 percent

Minor components: 15 percent

Description of Birdsboro

Setting

Landform: Stream terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Old alluvium derived from sandstone and siltstone and/or shale

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: High (about 10.0 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 2e

Hydrologic Soil Group: B

Typical profile

0 to 8 inches: Silt loam

8 to 13 inches: Silt loam

13 to 29 inches: Silt loam

29 to 40 inches: Silt loam

40 to 60 inches: Stratified sand to silty clay loam

60 to 80 inches: Stratified sand to fine sand

Minor Components

Bucks

Percent of map unit: 5 percent

Landform: Hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex

Duffield

Percent of map unit: 5 percent
Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear

Raritan, rarely flooded

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear

CoxA—Croton silt loam, 0 to 2 percent slopes

Map Unit Setting

Elevation: 200 to 900 feet
Mean annual precipitation: 40 to 48 inches
Mean annual air temperature: 45 to 55 degrees F
Frost-free period: 150 to 210 days

Map Unit Composition

Croton and similar soils: 85 percent
Minor components: 15 percent

Description of Croton

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy residuum weathered from sandstone and/or siltstone and/or shale

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 15 to 20 inches to fragipan; 40 to 60 inches to lithic bedrock
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.0 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4w
Hydrologic Soil Group: D

Typical profile

0 to 9 inches: Silt loam
9 to 18 inches: Silty clay loam
18 to 36 inches: Silty clay loam
36 to 48 inches: Silty clay loam
48 to 157 inches: Unweathered bedrock

Minor Components

Califon

Percent of map unit: 5 percent
Landform: Flats
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Reaville variant, poorly drained

Percent of map unit: 5 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Bowmansville, frequently flooded

Percent of map unit: 5 percent

Landform: Flood plains

Landform position (three-dimensional): Dip

Down-slope shape: Linear

Across-slope shape: Linear

LbtA—Lansdowne silt loam, 0 to 2 percent slopes

Map Unit Setting

Elevation: 0 to 220 feet

Mean annual precipitation: 40 to 48 inches

Mean annual air temperature: 45 to 57 degrees F

Frost-free period: 140 to 210 days

Map Unit Composition

Lansdowne and similar soils: 85 percent

Minor components: 15 percent

Description of Lansdowne

Setting

Landform: Flats

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Fine-loamy till derived from sandstone and shale over residuum weathered from sandstone and shale

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 54 to 66 inches to paralithic bedrock

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: About 12 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: High (about 9.7 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 2w

Hydrologic Soil Group: C

Typical profile

0 to 7 inches: Silt loam

7 to 50 inches: Silty clay

50 to 60 inches: Clay loam

60 to 157 inches: Unweathered bedrock

Minor Components

Parsippany, frequently flooded

Percent of map unit: 5 percent

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Linear

Elkton

Percent of map unit: 5 percent

Landform: Marine terraces

Down-slope shape: Linear

Across-slope shape: Linear

Fallsington variant, bedrock substratum, rarely flooded

Percent of map unit: 5 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

LbtB—Lansdowne silt loam, 2 to 6 percent slopes

Map Unit Setting

Elevation: 200 to 900 feet

Mean annual precipitation: 40 to 48 inches

Mean annual air temperature: 45 to 57 degrees F

Frost-free period: 160 to 210 days

Map Unit Composition

Lansdowne and similar soils: 85 percent

Minor components: 14 percent

Description of Lansdowne

Setting

Landform: Flats

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Fine-loamy till derived from sandstone and shale over residuum weathered from sandstone and shale

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 54 to 66 inches to paralithic bedrock

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: High (about 11.0 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3w

Hydrologic Soil Group: C

Typical profile

0 to 7 inches: Silt loam

7 to 13 inches: Silt loam

13 to 45 inches: Silty clay

45 to 60 inches: Stratified sandy loam to channery silty clay

60 to 157 inches: Weathered bedrock

Minor Components

Annandale

Percent of map unit: 5 percent

Landform: Ridges

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Linear

Croton

Percent of map unit: 3 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Bowmansville, frequently flooded

Percent of map unit: 3 percent

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Linear

Reaville variant, poorly drained

Percent of map unit: 3 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

NotB—Norton loam, 2 to 6 percent slopes

Map Unit Setting

Mean annual precipitation: 40 to 48 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 160 to 190 days

Map Unit Composition

Norton and similar soils: 85 percent

Minor components: 15 percent

Description of Norton

Setting

Landform: Flats

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Red fine-silty till and/or colluvium

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 63 to 76 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: High (about 9.4 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 2e

Hydrologic Soil Group: C

Typical profile

0 to 10 inches: Loam

10 to 14 inches: Silty clay loam
14 to 24 inches: Silty clay loam
24 to 44 inches: Silty clay loam
44 to 63 inches: Silty clay loam
63 to 70 inches: Channery loam
70 to 157 inches: Weathered bedrock

Minor Components

Bucks

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex

Annandale

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear

Lansdowne

Percent of map unit: 5 percent
Landform: Flats
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear

PenB—Penn silt loam, 2 to 6 percent slopes

Map Unit Setting

Elevation: 250 to 950 feet
Mean annual precipitation: 38 to 48 inches
Mean annual air temperature: 50 to 57 degrees F
Frost-free period: 170 to 200 days

Map Unit Composition

Penn and similar soils: 85 percent

Description of Penn

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.5 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 2e

Hydrologic Soil Group: C

Typical profile

0 to 8 inches: Silt loam

8 to 12 inches: Silt loam

12 to 25 inches: Channery silt loam

25 to 30 inches: Very channery silt loam

30 to 157 inches: Weathered bedrock

PenC—Penn silt loam, 6 to 12 percent slopes**Map Unit Setting**

Elevation: 250 to 950 feet

Mean annual precipitation: 38 to 48 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 170 to 200 days

Map Unit Composition

Penn and similar soils: 85 percent

Description of Penn**Setting**

Landform: Hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.5 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3e

Hydrologic Soil Group: C

Typical profile

0 to 8 inches: Silt loam

8 to 19 inches: Silt loam

19 to 24 inches: Very channery silt loam

24 to 157 inches: Weathered bedrock

PeoC—Penn channery silt loam, 6 to 12 percent slopes**Map Unit Setting**

Elevation: 250 to 950 feet

Mean annual precipitation: 38 to 48 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 170 to 200 days

Map Unit Composition

Penn and similar soils: 85 percent

Description of Penn

Setting

Landform: Hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.5 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3e

Hydrologic Soil Group: C

Typical profile

0 to 8 inches: Channery silt loam

8 to 20 inches: Channery silt loam

20 to 25 inches: Very channery silt loam

25 to 157 inches: Weathered bedrock

RarAr—Raritan silt loam, 0 to 3 percent slopes, rarely flooded

Map Unit Setting

Elevation: 150 to 1,000 feet

Mean annual precipitation: 38 to 50 inches

Mean annual air temperature: 45 to 57 degrees F

Frost-free period: 140 to 210 days

Map Unit Composition

Raritan, rarely flooded, and similar soils: 85 percent

Minor components: 15 percent

Description of Raritan, Rarely Flooded

Setting

Landform: Stream terraces

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Old fine-loamy alluvium derived from sandstone and siltstone and/or shale

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 22 to 33 inches to fragipan

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: About 6 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 4.5 inches)

Interpretive groups

Farmland classification: All areas are prime farmland

Land capability (nonirrigated): 2w

Hydrologic Soil Group: C

Typical profile

0 to 8 inches: Silt loam

8 to 15 inches: Silt loam

15 to 28 inches: Clay loam

28 to 46 inches: Clay loam

46 to 60 inches: Sand

Minor Components

Birdsboro

Percent of map unit: 3 percent

Landform: Stream terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Across-slope shape: Convex

Croton

Percent of map unit: 3 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Passaic, frequently flooded

Percent of map unit: 3 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Lamington

Percent of map unit: 3 percent

Landform: Stream terraces

Down-slope shape: Linear

Across-slope shape: Linear

Bowmansville, frequently flooded

Percent of map unit: 3 percent

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Linear

RehA—Reaville silt loam, 0 to 2 percent slopes

Map Unit Setting

Elevation: 300 to 1,000 feet

Mean annual precipitation: 36 to 55 inches

Mean annual air temperature: 46 to 57 degrees F

Frost-free period: 160 to 200 days

Map Unit Composition

Reaville and similar soils: 85 percent

Minor components: 12 percent

Description of Reaville

Setting

Landform: Interfluves

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Interbedded fine-grained fine-loamy residuum weathered from

sandstone and siltstone and/or shale

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.6 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3w

Hydrologic Soil Group: C

Typical profile

0 to 10 inches: Silt loam

10 to 15 inches: Channery silt loam

15 to 22 inches: Channery silt loam

22 to 28 inches: Very channery silt loam

28 to 157 inches: Weathered bedrock

Minor Components

Reaville variant, poorly drained

Percent of map unit: 3 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Bucks

Percent of map unit: 3 percent

Landform: Hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex

Readington

Percent of map unit: 3 percent

Landform: Hillsides

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Croton

Percent of map unit: 3 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

RehB—Reaville silt loam, 2 to 6 percent slopes

Map Unit Setting

Elevation: 300 to 1,300 feet

Mean annual precipitation: 36 to 55 inches

Mean annual air temperature: 46 to 57 degrees F

Frost-free period: 130 to 200 days

Map Unit Composition

Reaville and similar soils: 85 percent

Minor components: 12 percent

Description of Reaville

Setting

Landform: Interfluves

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Interbedded fine-grained fine-loamy residuum weathered from sandstone and siltstone and/or shale

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 33 inches to paralithic bedrock

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)

Depth to water table: About 12 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 4.3 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 3w

Hydrologic Soil Group: C

Typical profile

0 to 8 inches: Silt loam

8 to 13 inches: Silt loam

13 to 19 inches: Silt loam

19 to 23 inches: Channery silt loam

23 to 157 inches: Weathered bedrock

Minor Components

Bucks

Percent of map unit: 3 percent

Landform: Hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex

Readington

Percent of map unit: 3 percent

Landform: Hillsides

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Croton

Percent of map unit: 3 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Custom Soil Resource Report

156

Klinesville

Percent of map unit: 3 percent

Landform: Hills
Down-slope shape: Linear
Across-slope shape: Con

RorAt—Rowland silt loam, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

Elevation: 200 to 1,000 feet
Mean annual precipitation: 36 to 50 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 140 to 210 days

Map Unit Composition

Rowland, frequently flooded, and similar soils: 85 percent
Minor components: 15 percent

Description of Rowland, Frequently Flooded

Setting

Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Red and brown fine-loamy alluvium derived from sandstone and shale and/or conglomerate

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 5w
Hydrologic Soil Group: C

Typical profile

0 to 3 inches: Silt loam
3 to 10 inches: Silt loam
10 to 40 inches: Silt loam
40 to 65 inches: Error

Minor Components

Bowmansville, frequently flooded

Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear

Birdsboro

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Convex

Raritan, rarely flooded

Percent of map unit: 5 percent
Landform: Stream terraces
Down-slope shape: Linear
Across-slope shape: Linear

UdrB—Udorthents, refuse substratum, 0 to 8 percent slopes

Map Unit Setting

Mean annual precipitation: 42 to 48 inches

Mean annual air temperature: 48 to 55 degrees F

Frost-free period: 180 to 200 days

Map Unit Composition

Udorthents, refuse substratum, and similar soils: 100 percent

Description of Udorthents, Refuse Substratum

Setting

Landform: Low hills

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loamy lateral spread deposits over organic material

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: High (about 12.0 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 7s

Hydrologic Soil Group: D

Typical profile

0 to 60 inches: Silt loam

II. Cultural Resources

A. Cultural Heritage

Somerville was settled in colonial times primarily by the Dutch who purchased land from the English proprietors of the colony. The Dutch established their church near what is today Somerville and a Dutch Reformed minister or Domine lived at the Old Dutch Parsonage from about 1754. The early village grew up around a church, courthouse and a tavern built at a crossroads shortly after the American Revolution. No one knows who gave Somerville its name, but it was known by this name by about 1800.

Somerville was originally a sparsely populated farming community, but rapidly grew after the completion of the railroad in the 1840s and development of water power along the Raritan River in the 1850s. Early industry included brick making from the plentiful red clay and shale on which Somerville is built. While much of the borough features distinctive Victorian architecture in several neighborhoods and along its Main Street, other periods are represented. National Register sites in Somerville include the white marble 1909 Somerville Court House and the wooden and stone colonial Wallace House (today a museum) where George Washington spent a winter during the American Revolutionary War.

Near the Wallace House is the Old Dutch Parsonage, where Reverend Jacob Rutsen Hardenbergh, a founder and first president of Rutgers University, then called Queens College, lived. Register listed Victorian structures include the James Harper Smith Estate (privately owned), St. John's Episcopal Church and rectory, and the Fire Museum (a vintage fire house) and the municipal building, the former Robert Mansion. Other notable, register eligible structure is the Victorian train station (privately owned).

Originally the center of local commerce, the Borough has evolved into a destination for boutique retail and dining. Modern highways today surround and go through Somerville including, U.S. Route 22, U.S. Route 202, U.S. Route 206 and Route 28 and is within 6 miles (8.0 km) of Interstate 287 and Interstate 78, making it an important hub in central New Jersey.

Somerville celebrated it's 100th Centennial Anniversary in 2009. There was a Centennial Parade on Saturday, June 19, 2010. In addition, in 2010, it was the 175th Anniversary of the Somerville Fire Department.

B. Historical/Architectural Significance

The period of historical significance for Somerville spans from 1751, the date of the construction of the earliest surviving building in the town, to 1950, the end of the post-World War II period, by which time the Borough was almost fully developed. The surviving street patterns and some scattered buildings, reflect earlier patterns of development reaching back to the second half of the 18th century. Most of Somerville however reached its present form in the approximately 50 years spanning the turn of the 19th and 20th centuries.

The historical background of the Borough relates to three of New Jersey's state-wide historic contexts; 1). Initial Colonial Settlement, 1630-1775; 2) Industrialization, Urban Growth, and the First Suburbs, 1790-1880; and; 3) Immigration and Agricultural, Industrial, and Urban Expansion, 1850-1920.

A number of areas of significance can be defined for the Borough. Transportation was one important factor. The development of Somerville was in large part determined by its development along transportation corridors: first, an important east-west road of late 17th century origin; second, the railroad, which began service in 1842. Two other determinative areas of significance are religion and politics/government. The decision to locate the Somerset County Court House and the First Dutch Reformed Church in Somerville made the town the political and religious center of the county. The pull of these institutions, as well as transportation facilities, also made Somerville a commercial center. The combination of these factors led to the town's development as a residential community, another area of significance for Somerville. Industry was an area of significance for Somerville, but only in the late 19th and early 20th centuries. Finally, for a brief period during the Revolutionary War, Somerville had military significance as the site of Washington's headquarters during the winter of 1778-1779.

The Borough of Somerville is also significant for a range of surviving architecture that reflects its development over almost two centuries. The buildings include examples of work by nationally-recognized architects such as William Appleton Potter, George B. Post, John Russell Pope and J. Riely Gordon, as well as those known for their work in New Jersey, such as Frank V. Bodine. Old Somerset County Courthouse Designed by J. Riely Gordon, Neo-Classical.



Old Somerset County Courthouse Designed by J. Riely Gordon Neo-Classical

The Borough contains high-style and vernacular examples of a broad range of styles, from Georgian through Federal, Greek Revival, Gothic Revival, Italianate, Queen Anne, and Richardsonian Romanesque to early 20th century Neo-Classical. Greek



Greek Revival

C. National And State Registers Of Historic Sites and Districts

Background

The National Historic Preservation Act of 1966 established a federal policy of preserving the country's cultural heritage. This marked the first time that funding had been made available throughout the country to identify, map and preserve historic and pre-European structures and sites. Much of the identification and organizing work was delegated to the state level through the establishment of State Historic Preservation Offices (SHPOs). The State Historic Preservation Officer is the official liaison between local officials or groups and the federal Department of Interior, the agency responsible for administering federal historic preservation efforts. The federal program became the impetus for the New Jersey Legislature's passage of historic preservation legislation in 1970. In New Jersey, the State Historic Preservation officer and staff are part of the state Department of Environmental Protection. The SHPO is responsible for maintaining the State Register and evaluating petitions for inclusion on the list, as well as submitting request for inclusion on the National Register. Benefits of Listing Historic Sites and Historic Districts Sites and districts on the Registers are afforded a certain level of protection. Projects involving federal money that may have an impact on National Register sites or districts must undergo a comprehensive evaluation process of that impact. The State requires a similar evaluation of State Registered sites and districts. In addition, numerous studies have been undertaken that have found historic listing has positive economic benefits for both the property owner and the community. Some of the benefits of historic site and district listing are as follows:

- It can encourage owners of historic sites and properties within historic districts in their efforts to preserve the historic character of such properties.
- It can stabilize and improve property values in the community.
- It can foster civic pride in the historic and architectural accomplishments of the past.

Somerville's National and State Registered Sites

Currently, there are seven (7) National and State Register historical sites in the Borough of Somerville. There are no listed historic districts. The historic sites include a variety of properties representing different important time periods in the Borough's history. They also include a variety of architectural styles. The long term preservation of these important resources has been enhanced through the listing of these historic sites on the National and State Registers. The seven listed sites include:

- J. Harper Smith Mansion, 228 Altamont Place
- W. End Hose Co Firehouse, 15 N. Doughty Street
- St. John's Church Complex, 154-158 W. High St.
- Somerset Court House Green, Main St., Grove & N. Bridge Streets
- Somerville Borough Hall, 25 West End Avenue
- Wallace House, 28 Washington Place
- Old Dutch Parsonage, 65 Washington Place



228 Altamont Place



Somerville Borough Hall

III. Biological Resources

A. Biodiversity

Somerville is within the Piedmont Plains Landscape. This landscape region also combines two of New Jersey's physiographic regions, the Piedmont and the Inner Coastal Plains. It encompasses all or parts of Burlington, Gloucester, Salem, Mercer, Middlesex, Monmouth, Hunterdon, Somerset, Union, Essex, Hudson, Passaic, and Bergen 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 world's most productive. 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 (source: Nj Wildlife Action Plan, 2008).

According to the Native Plant Society of NJ the native vegetation of Somerset County consists of the following species;

**Table
III-1
Native Species of Somerset County**

Scientific Name	Common Name	Category	Duration	Growth Habit	National Wetland Indicator Status
<i>Acalypha gracilens</i>	slender threeseed mercury	Dicot	Annual	Forb/herb	
<i>Acalypha rhomboidea</i>	common threeseed mercury	Dicot	Annual	Forb/herb	UPL, FAC-
<i>Acalypha virginica</i>	Virginia threeseed mercury	Dicot	Annual	Forb/herb	UPL, FACU
<i>Acer negundo</i>	boxelder	Dicot	Perennial	Tree	FAC, FACW
<i>Acer nigrum</i>	black maple	Dicot	Perennial	Tree	
<i>Acer pensylvanicum</i>	striped maple	Dicot	Perennial	Tree, Shrub	FACU-, FACU
<i>Acer rubrum</i>	red maple	Dicot	Perennial	Tree	FAC
<i>Acer saccharinum</i>	silver maple	Dicot	Perennial	Tree	FAC, FACW
<i>Acer saccharum</i>	sugar maple	Dicot	Perennial	Tree, Shrub	UPL, FACU
<i>Acer spicatum</i>	mountain maple	Dicot	Perennial	Tree, Shrub	FACU-, FACU
<i>Acorus calamus</i>	calamus	Monocot	Perennial	Forb/herb	OBL
<i>Actaea pachypoda</i>	white baneberry	Dicot	Perennial	Forb/herb	
<i>Actaea racemosa</i>	black baneberry	Dicot	Perennial	Forb/herb	
<i>Actaea rubra</i>	red baneberry	Dicot	Perennial	Forb/herb	
<i>Adiantum pedatum</i>	northern maidenhair	Fern	Perennial	Forb/herb	FACU, FAC
<i>Adlumia fungosa</i>	allegheny vine	Dicot	Biennial	Vine, Forb/herb	
<i>Aesculus parviflora</i>	bottlebrush buckeye	Dicot	Perennial	Tree, Shrub	
<i>Agalinis purpurea</i>	purple false foxglove	Dicot	Annual	Forb/herb	FAC, FACW
<i>Agalinis tenuifolia</i>	slenderleaf false foxglove	Dicot	Annual	Forb/herb	FACU, FACW
<i>Agastache nepetoides</i>	yellow giant hyssop	Dicot	Perennial	Subshrub, Forb/herb	FACU, FAC
<i>Ageratina altissima</i>	white snakeroot	Dicot	Perennial	Forb/herb	UPL, FAC
<i>Ageratina aromatica</i>	lesser snakeroot	Dicot	Perennial	Forb/herb	
<i>Agrimonia gryposepala</i>	tall hairy agrimony	Dicot	Perennial	Forb/herb	FACU, FACW-
<i>Agrimonia parviflora</i>	harvestlice	Dicot	Perennial	Forb/herb	FAC, FACW
<i>Agrimonia rostellata</i>	beaked agrimony	Dicot	Perennial	Forb/herb	FACU, FAC
<i>Agrimonia striata</i>	roadside agrimony	Dicot	Perennial	Forb/herb	FACU-, FAC
<i>Agrostis hyemalis</i>	winter bentgrass	Monocot	Perennial	Graminoid	FACU, FACW
<i>Agrostis perennans</i>	upland bentgrass	Monocot	Perennial	Graminoid	FACU, FACW
<i>Alisma subcordatum</i>	American water plantain	Monocot	Perennial	Forb/herb	OBL
<i>Alisma triviale</i>	northern water plantain	Monocot	Perennial	Forb/herb	
<i>Allium canadense</i>	meadow garlic	Monocot	Perennial	Forb/herb	FACU-, FACU
<i>Allium tricoccum</i>	ramp	Monocot	Perennial	Forb/herb	FACU, FAC
<i>Alnus incana</i>	gray alder	Dicot	Perennial	Tree, Shrub	FACU, FACW
<i>Alnus serrulata</i>	hazel alder	Dicot	Perennial	Tree, Shrub	FACW+, OBL
<i>Ambrosia artemisiifolia</i>	annual ragweed	Dicot	Annual	Forb/herb	UPL, FACU+
<i>Ambrosia trifida</i>	great ragweed	Dicot	Annual	Subshrub,	FAC, FACW

					Forb/herb	
Amelanchier arborea	common serviceberry	Dicot	Perennial	Tree, Shrub		FACU, FAC
Amelanchier canadensis	Canadian serviceberry	Dicot	Perennial	Tree, Shrub		FACU, FAC
Amelanchier laevis	Allegheny serviceberry	Dicot	Perennial	Tree, Shrub		
Amorpha fruticosa	desert false indigo	Dicot	Perennial	Shrub		FAC, OBL
Amphicarpaea bracteata	American hogpeanut	Dicot	Perennial	Vine, Forb/herb		FACU, FACW
Anaphalis margaritacea	western pearly everlasting	Dicot	Perennial	Forb/herb		
Andropogon gerardii	big bluestem	Monocot	Perennial	Graminoid		FACU, FAC
Andropogon virginicus	broomsedge bluestem	Monocot	Perennial	Graminoid		UPL, FAC
Anemone quinquefolia	wood anemone	Dicot	Perennial	Forb/herb		FACU, FAC
Anemone virginiana	tall thimbleweed	Dicot	Perennial	Forb/herb		NI
Angelica venenosa	hairy angelica	Dicot	Perennial	Forb/herb		
Antennaria neglecta	field pussytoes	Dicot	Perennial	Forb/herb		
Antennaria plantaginifolia	woman's tobacco	Dicot	Perennial	Forb/herb		
Apios americana	groundnut	Dicot	Perennial	Vine, Forb/herb		FAC, FACW
Apocynum androsaemifolium	spreading dogbane	Dicot	Perennial	Forb/herb		
Apocynum cannabinum	Indianhemp	Dicot	Perennial	Forb/herb		FACU, FAC+
Aquilegia canadensis	red columbine	Dicot	Perennial	Forb/herb		FAC-, FACW
Arabis canadensis	sicklepod	Dicot	Biennial	Forb/herb		
Arabis laevigata	smooth rockcress	Dicot	Biennial	Forb/herb		
Aralia nudicaulis	wild sarsaparilla	Dicot	Perennial	Forb/herb Subshrub,		FACU, FAC
Aralia racemosa	American spikenard	Dicot	Perennial	Forb/herb		
Aralia spinosa	devil's walkingstick	Dicot	Perennial	Tree, Shrub		FAC, FACW-
Arisaema dracontium	green dragon	Monocot	Perennial	Forb/herb		FACW
Arisaema triphyllum	Jack in the pulpit	Monocot	Perennial	Forb/herb		FAC, FACW
Aristida dichotoma	churchmouse threeawn	Monocot	Annual	Graminoid		UPL, FACU
Asarum canadense	Canadian wildginger	Dicot	Perennial	Forb/herb		
Asclepias amplexicaulis	clasping milkweed	Dicot	Perennial	Forb/herb		
Asclepias exaltata	poke milkweed	Dicot	Perennial	Forb/herb		FACU
Asclepias incarnata	swamp milkweed	Dicot	Perennial	Forb/herb		FACW+, OBL
Asclepias purpurascens	purple milkweed	Dicot	Perennial	Forb/herb		FACU, FACU+
Asclepias quadrifolia	fourleaf milkweed	Dicot	Perennial	Forb/herb		
Asclepias rubra	red milkweed	Dicot	Perennial	Forb/herb		OBL
Asclepias syriaca	common milkweed	Dicot	Perennial	Forb/herb		
Asclepias tuberosa	butterfly milkweed	Dicot	Perennial	Forb/herb		

<i>Asclepias variegata</i>	redring milkweed	Dicot	Perennial	Forb/herb	FACU
<i>Asclepias verticillata</i>	whorled milkweed	Dicot	Perennial	Forb/herb	
<i>Asclepias viridiflora</i>	green comet milkweed	Dicot	Perennial	Forb/herb	
<i>Asplenium platyneuron</i>	ebony spleenwort	Fern	Perennial	Forb/herb	FACU-, FACU
<i>Asplenium rhizophyllum</i>	walking fern	Fern	Perennial	Forb/herb	
<i>Asplenium trichomanes</i>	maidenhair spleenwort	Fern	Perennial	Forb/herb	
<i>Athyrium filix-femina</i>	common ladyfern	Fern	Perennial	Forb/herb	FAC, FAC+
<i>Aureolaria pedicularia</i>	foxglove	Dicot	Annual	Forb/herb	
<i>Aureolaria virginica</i>	downy yellow false foxglove	Dicot	Perennial	Forb/herb	
<i>Baccharis halimifolia</i>	eastern baccharis	Dicot	Perennial	Tree, Shrub	FAC, FACW
<i>Baptisia tinctoria</i>	horseflyweed	Dicot	Perennial	Forb/herb	
<i>Betula alleghaniensis</i>	yellow birch	Dicot	Perennial	Tree	FACU+, FAC
<i>Betula lenta</i>	sweet birch	Dicot	Perennial	Tree	FACU
<i>Betula nigra</i>	river birch	Dicot	Perennial	Tree	FACW, OBL
<i>Betula populifolia</i>	gray birch	Dicot	Perennial	Tree	FAC
<i>Bidens aristosa</i>	bearded beggarticks	Dicot	Annual, Biennial	Forb/herb	FACW-, FACW
<i>Bidens bipinnata</i>	Spanish needles	Dicot	Annual	Forb/herb	
<i>Bidens coronata</i>	crowned beggarticks	Dicot	Annual	Forb/herb	OBL
<i>Bidens discoidea</i>	small beggarticks	Dicot	Annual	Forb/herb	FACW, FACW+
<i>Bidens frondosa</i>	devil's beggartick	Dicot	Annual	Forb/herb	FACW, FACW+
<i>Bidens vulgata</i>	big devils beggartick	Dicot	Annual	Forb/herb	
<i>Boehmeria cylindrica</i>	smallspike false nettle	Dicot	Perennial	Forb/herb	FACW, OBL
<i>Botrychium dissectum</i>	cutleaf grapefern	Fern	Perennial	Forb/herb	FAC
<i>Botrychium oneidense</i>	bluntlobe grapefern	Fern	Perennial	Forb/herb	
<i>Botrychium virginianum</i>	rattlesnake fern	Fern	Perennial	Forb/herb	FACU
<i>Bouteloua curtipendula</i>	sideoats grama	Monocot	Perennial	Graminoid	
<i>Bromus pubescens</i>	hairy woodland brome	Monocot	Perennial	Graminoid	
<i>Bulbostylis capillaris</i>	densetuft hairsedge	Monocot	Annual, Perennial	Graminoid	UPL, FAC
<i>Callitriche heterophylla</i>	twoheaded water-starwort	Dicot	Perennial	Forb/herb	OBL
<i>Calopogon tuberosus</i>	tuberous grasspink	Monocot	Perennial	Forb/herb	FACW+, OBL
<i>Calystegia spithamea</i>	low false bindweed	Dicot	Perennial	Vine, Forb/herb	
<i>Campanula aparinoides</i>	marsh bellflower	Dicot	Perennial	Forb/herb	OBL
<i>Campanula rotundifolia</i>	bluebell bellflower	Dicot	Perennial	Forb/herb	UPL, FAC

Cardamine angustata	slender toothwort	Dicot	Perennial	Forb/herb	FACU, FAC+
Cardamine bulbosa	bulbous bittercress	Dicot	Perennial	Forb/herb	OBL
Cardamine concatenata	cutleaf toothwort	Dicot	Perennial	Forb/herb	FACU
Cardamine parviflora	sand bittercress	Dicot	Annual	Forb/herb	FACU, FACW
Cardamine pennsylvanica	Pennsylvania bittercress	Dicot	Annual, Biennial, Perennial	Forb/herb	FAC, OBL
Cardamine pratensis	cuckoo flower	Dicot	Perennial	Forb/herb	OBL
Carex abscondita	thicket sedge	Monocot	Perennial	Graminoid	FACU, FACW
Carex annectens	yellowfruit sedge	Monocot	Perennial	Graminoid	FAC+, FACW+
Carex brevior	shortbeak sedge	Monocot	Perennial	Graminoid	UPL, OBL
Carex cephalophora	oval-leaf sedge	Monocot	Perennial	Graminoid	UPL, OBL
Carex complanata	hirsute sedge	Monocot	Perennial	Graminoid	FACU-, OBL
Carex crawfordii	Crawford's sedge	Monocot	Perennial	Graminoid	FACU, FAC+
Carex crinita	fringed sedge	Monocot	Perennial	Graminoid	FACW+, OBL
Carex cristatella	crested sedge	Monocot	Perennial	Graminoid	FAC, FACW+
Carex digitalis	slender woodland sedge	Monocot	Perennial	Graminoid	UPL, FACU
Carex festucacea	fescue sedge	Monocot	Perennial	Graminoid	FAC, FACW
Carex frankii	Frank's sedge	Monocot	Perennial	Graminoid	OBL
Carex glaucoidea	blue sedge	Monocot	Perennial	Graminoid	
Carex grayi	Gray's sedge	Monocot	Perennial	Graminoid	FACW, FACW+
Carex grisea	inflated narrow-leaf sedge	Monocot	Perennial	Graminoid	
Carex hirtifolia	pubescent sedge	Monocot	Perennial	Graminoid	
Carex hystericina	bottlebrush sedge	Monocot	Perennial	Graminoid	OBL
Carex lasiocarpa	woollyfruit sedge	Monocot	Perennial	Graminoid	OBL
Carex laxiflora	broad looseflower sedge	Monocot	Perennial	Graminoid	UPL, FACU
Carex lupuliformis	false hop sedge	Monocot	Perennial	Graminoid	FACW+, OBL
Carex lupulina	hop sedge	Monocot	Perennial	Graminoid	FACW+, OBL
Carex lurida	shallow sedge	Monocot	Perennial	Graminoid	FACW+, OBL
Carex muehlenbergii	Muhlenberg's sedge	Monocot	Perennial	Graminoid	
Carex nigromarginata	black edge sedge	Monocot	Perennial	Graminoid	UPL, FACU
Carex normalis	greater straw sedge	Monocot	Perennial	Graminoid	FACU, OBL
Carex oligocarpa	richwoods sedge	Monocot	Perennial	Graminoid	
Carex pallescens	pale sedge	Monocot	Perennial	Graminoid	
Carex pennsylvanica	Pennsylvania sedge	Monocot	Perennial	Graminoid	
Carex platyphylla	broadleaf sedge	Monocot	Perennial	Graminoid	
Carex prairea	prairie sedge	Monocot	Perennial	Graminoid	FACW, OBL
Carex rosea	rosy sedge	Monocot	Perennial	Graminoid	
Carex scoparia	broom sedge	Monocot	Perennial	Graminoid	FACW
Carex squarrosa	squarrose sedge	Monocot	Perennial	Graminoid	FACW, OBL
Carex stipata	awlfruit sedge	Monocot	Perennial	Graminoid	OBL
Carex stricta	upright sedge	Monocot	Perennial	Graminoid	OBL
Carex tribuloides	blunt broom sedge	Monocot	Perennial	Graminoid	FACW, OBL
Carex typhina	cattail sedge	Monocot	Perennial	Graminoid	FACW+, OBL

Carex vesicaria	blister sedge	Monocot	Perennial	Graminoid	OBL
Carex vulpinoidea	fox sedge	Monocot	Perennial	Graminoid	OBL
Carex willdenowii	Willdenow's sedge	Monocot	Perennial	Graminoid	UPL, OBL
Carpinus caroliniana	American hornbeam	Dicot	Perennial	Tree, Shrub	FAC
Carya alba	mockernut hickory	Dicot	Perennial	Tree	
Carya cordiformis	bitternut hickory	Dicot	Perennial	Tree	FACU+, FAC
Carya glabra	pignut hickory	Dicot	Perennial	Tree	FACU-, FACU
Carya ovalis	red hickory	Dicot	Perennial	Tree	UPL, FACU
Carya ovata	shagbark hickory	Dicot	Perennial	Tree	FACU-, FACU+
Castanea dentata	American chestnut	Dicot	Perennial	Tree	
Castilleja coccinea	scarlet Indian paintbrush	Dicot	Annual	Forb/herb	FACU, FAC
Catalpa bignonioides	southern catalpa	Dicot	Perennial	Tree	UPL, FAC-
Caulophyllum thalictroides	blue cohosh	Dicot	Perennial	Forb/herb	
Ceanothus americanus	New Jersey tea	Dicot	Perennial	Subshrub, Shrub	
Celastrus scandens	American bittersweet	Dicot	Perennial	Vine	UPL, FACU
Celtis occidentalis	common hackberry	Dicot	Perennial	Tree, Shrub	FACU, FAC
Cephalanthus occidentalis	common buttonbush	Dicot	Perennial	Tree, Shrub	OBL
Cerastium nutans	nodding chickweed	Dicot	Perennial	Annual, Forb/herb	FACU, FAC
Ceratophyllum demersum	coon's tail	Dicot	Perennial	Forb/herb	OBL
Cercis canadensis	eastern redbud	Dicot	Perennial	Tree, Shrub	UPL, FACU
Chaerophyllum procumbens	spreading chervil	Dicot	Annual	Forb/herb	FAC, FACW
Chamaecrista fasciculata	partridge pea	Dicot	Annual	Forb/herb	
Chamaecrista nictitans	sensitive partridge pea	Dicot	Annual, Perennial	Subshrub, Forb/herb	
Chamaelirium luteum	fairywand	Monocot	Perennial	Forb/herb	FACU-, FAC
Chamaesyce maculata	spotted sandmat	Dicot	Annual	Forb/herb	
Chamaesyce nutans	eyebane	Dicot	Annual, Perennial	Forb/herb	
Cheilanthes lanosa	hairy lipfern	Fern	Perennial	Forb/herb	
Chelone glabra	white turtlehead	Dicot	Perennial	Forb/herb	OBL
Chenopodium standleyanum	Standley's goosefoot	Dicot	Annual	Forb/herb	
Chimaphila maculata	striped prince's pine	Dicot	Perennial	Subshrub	
Chimaphila umbellata	pipsissewa	Dicot	Perennial	Subshrub	
Chionanthus virginicus	white fringetree	Dicot	Perennial	Tree, Shrub	FACU, FAC+
Chrysosplenium americanum	American golden saxifrage	Dicot	Perennial	Forb/herb	OBL

<i>Cicuta maculata</i>	spotted water hemlock	Dicot	Biennial, Perennial	Forb/herb	OBL
<i>Cinna arundinacea</i>	sweet woodreed	Monocot	Perennial	Graminoid	FACW, FACW+
<i>Circaea lutetiana</i>	broadleaf enchanter's nightshade	Dicot	Perennial Biennial,	Forb/herb	FACU
<i>Cirsium discolor</i>	field thistle	Dicot	Perennial	Forb/herb	
<i>Cirsium muticum</i>	swamp thistle	Dicot	Biennial	Forb/herb	FACW+, OBL
<i>Cirsium pumilum</i>	pasture thistle	Dicot	Perennial	Forb/herb	
<i>Claytonia virginica</i>	Virginia springbeauty	Dicot	Perennial	Forb/herb	FACU-, FACU
<i>Clematis occidentalis</i>	western blue virginsbower	Dicot	Perennial	Vine	
<i>Clematis virginiana</i>	devil's darning needles	Dicot	Perennial	Vine	FACU, FAC+
<i>Clethra alnifolia</i>	coastal sweetpepperbush	Dicot	Perennial	Shrub	FAC+, FACW
<i>Collinsonia canadensis</i>	richweed	Dicot	Perennial	Forb/herb Subshrub,	FAC, FAC+
<i>Comandra umbellata</i>	bastard toadflax	Dicot	Perennial	Forb/herb	UPL, FACU
<i>Conopholis americana</i>	American cancer-root	Dicot	Perennial Annual,	Forb/herb	
<i>Conyza canadensis</i>	Canadian horseweed	Dicot	Biennial	Forb/herb	UPL, FAC
<i>Corallorhiza maculata</i>	summer coralroot	Monocot	Perennial	Forb/herb	
<i>Corallorhiza odontorhiza</i>	autumn coralroot	Monocot	Perennial	Forb/herb	
<i>Coreopsis lanceolata</i>	lanceleaf tickseed	Dicot	Perennial	Forb/herb	UPL, FAC
<i>Cornus alternifolia</i>	alternateleaf dogwood	Dicot	Perennial	Tree, Shrub	
<i>Cornus amomum</i>	silky dogwood	Dicot	Perennial	Shrub	FACW, FACW+
<i>Cornus florida</i>	flowering dogwood	Dicot	Perennial	Tree, Shrub	FACU-, FACU
<i>Cornus racemosa</i>	gray dogwood	Dicot	Perennial	Shrub	
<i>Cornus rugosa</i>	roundleaf dogwood	Dicot	Perennial	Tree, Shrub	
<i>Cornus sericea</i>	redosier dogwood	Dicot	Perennial Annual, Biennial,	Tree, Shrub	
<i>Corydalis sempervirens</i>	rock harlequin	Dicot	Perennial	Forb/herb	
<i>Corylus americana</i>	American hazelnut	Dicot	Perennial	Shrub	UPL, FACU
<i>Corylus cornuta</i>	beaked hazelnut	Dicot	Perennial	Tree, Shrub	UPL, FACU
<i>Crataegus crus-galli</i>	cockspur hawthorn	Dicot	Perennial	Tree, Shrub	FACU, FAC
<i>Crataegus intricata</i>	Copenhagen hawthorn	Dicot	Perennial	Tree, Shrub	
<i>Crataegus phaenopyrum</i>	Washington hawthorn	Dicot	Perennial	Tree, Shrub	FAC-, FAC
<i>Crataegus punctata</i>	dotted hawthorn	Dicot	Perennial	Tree, Shrub	
<i>Crataegus uniflora</i>	dwarf hawthorn	Dicot	Perennial Annual,	Tree, Shrub Subshrub,	
<i>Crotalaria sagittalis</i>	arrowhead rattlebox	Dicot	Perennial	Forb/herb	
<i>Cryptotaenia canadensis</i>	Canadian honewort	Dicot	Perennial	Forb/herb	FACU, FAC+
<i>Cunila origanoides</i>	common dittany	Dicot	Perennial	Subshrub,	

				Forb/herb	
Cuphea viscosissima	blue waxweed	Dicot	Annual	Forb/herb	UPL, FAC
Cuscuta gronovii	scaldweed	Dicot	Perennial	Vine, Forb/herb	
Cuscuta polygonorum	smartweed dodder	Dicot	Perennial	Vine, Forb/herb	
Cynoglossum virginianum	wild comfrey	Dicot	Perennial	Forb/herb	
Cyperus echinatus	globe flatsedge	Monocot	Perennial	Graminoid	
Cyperus lupulinus	Great Plains flatsedge	Monocot	Perennial	Graminoid	
Cyperus strigosus	strawcolored flatsedge	Monocot	Perennial	Graminoid	FACW
Cypripedium acaule	moccasin flower	Monocot	Perennial	Forb/herb	FACU, FACW
Cystopteris tenuis	upland brittle bladderfern	Fern	Perennial	Forb/herb	
Danthonia spicata	poverty oatgrass	Monocot	Perennial	Graminoid	
Dennstaedtia punctilobula	eastern hayscented fern	Fern	Perennial	Forb/herb	
Deparia acrostichoides	silver false spleenwort	Fern	Perennial	Forb/herb	
Desmodium canadense	showy ticktrefoil	Dicot	Perennial	Forb/herb	FACU, FAC
Desmodium canescens	hoary ticktrefoil	Dicot	Perennial	Forb/herb	
Desmodium ciliare	hairy small-leaf ticktrefoil	Dicot	Perennial	Forb/herb	
Desmodium glabellum	Dillenius' ticktrefoil	Dicot	Perennial	Forb/herb	
Desmodium glutinosum	pointedleaf ticktrefoil	Dicot	Perennial	Forb/herb	
Desmodium laevigatum	smooth ticktrefoil	Dicot	Perennial	Forb/herb	
Desmodium marilandicum	smooth small-leaf ticktrefoil	Dicot	Perennial	Forb/herb	
Desmodium nudiflorum	nakedflower ticktrefoil	Dicot	Perennial	Forb/herb	
Desmodium obtusum	stiff ticktrefoil	Dicot	Perennial	Forb/herb	
Desmodium paniculatum	panicledleaf ticktrefoil	Dicot	Perennial	Forb/herb	UPL, FAC-
Desmodium rotundifolium	prostrate ticktrefoil	Dicot	Perennial	Forb/herb	
Dicentra canadensis	squirrel corn	Dicot	Perennial	Forb/herb	
Dicentra cucullaria	dutchman's breeches	Dicot	Perennial	Forb/herb	
Dichanthelium acuminatum	tapered rosette grass	Monocot	Perennial	Graminoid	FACU-, FACW
Dichanthelium boreale	northern panicgrass	Monocot	Perennial	Graminoid	FACU, FACU+
Dichanthelium boscii	Bosc's panicgrass	Monocot	Perennial	Graminoid	
Dichanthelium clandestinum	deertongue	Monocot	Perennial	Graminoid	FAC+, FACW
Dichanthelium depauperatum	starved panicgrass	Monocot	Perennial	Graminoid	

Dichanthelium latifolium	broadleaf rosette grass	Monocot	Perennial	Graminoid	FACU-, FACU
Diervilla lonicera	northern bush honeysuckle	Dicot	Perennial	Shrub	
Digitaria sanguinalis	hairy crabgrass	Monocot	Annual	Graminoid	FACU-, FAC-
Diodia teres	poorjoe	Dicot	Perennial	Forb/herb	UPL, FACU
Dioscorea villosa	wild yam	Monocot	Perennial	Vine, Forb/herb	FACU, FAC+
Diospyros virginiana	common persimmon	Dicot	Perennial	Tree	FACU, FAC
Doellingeria infirma	cornel-leaf whitetop	Dicot	Perennial	Forb/herb	
Dryopteris carthusiana	spinulose woodfern	Fern	Perennial	Forb/herb	
Dryopteris marginalis	marginal woodfern	Fern	Perennial	Forb/herb	FACU-, FACU
Echinochloa muricata	rough barnyardgrass	Monocot	Annual	Graminoid	FAC, OBL
Echinocystis lobata	wild cucumber	Dicot	Annual	Vine, Forb/herb	FACU, FACW-
Eleocharis acicularis	needle spikerush	Monocot	Perennial	Graminoid	OBL
Eleocharis ovata	ovate spikerush	Monocot	Annual	Graminoid	OBL
Eleocharis palustris	common spikerush	Monocot	Perennial	Graminoid	OBL
Eleocharis tenuis	slender spikerush	Monocot	Perennial	Graminoid	FACW, FACW+
Ellisia nyctelea	Aunt Lucy	Dicot	Annual	Forb/herb	UPL, FAC+
Elodea canadensis	Canadian waterweed	Monocot	Perennial	Forb/herb	OBL
Elodea nuttallii	western waterweed	Monocot	Perennial	Forb/herb	OBL
Elymus hystrix	eastern bottlebrush grass	Monocot	Perennial	Graminoid	
Elymus virginicus	Virginia wildrye	Monocot	Perennial	Graminoid	FAC, FACW
Epifagus virginiana	beechdrops	Dicot	Annual	Forb/herb Subshrub,	
Epigaea repens	trailing arbutus	Dicot	Perennial	Shrub	
Epilobium ciliatum	fringed willowherb	Dicot	Perennial	Forb/herb	FACU, OBL
Epilobium coloratum	purpleleaf willowherb	Dicot	Perennial	Forb/herb	OBL
Equisetum arvense	field horsetail	Horsetail	Perennial	Forb/herb	FACU, FACW-
Equisetum hyemale	scouringrush horsetail	Horsetail	Perennial	Forb/herb	FAC+, FACW
Equisetum sylvaticum	woodland horsetail	Horsetail	Perennial	Forb/herb	FACU, FACW
Eragrostis capillaris	lace grass	Monocot	Annual	Graminoid	
Eragrostis spectabilis	purple lovegrass	Monocot	Perennial	Graminoid	UPL, FACU
Erechtites hieraciifolia	American burnweed	Dicot	Annual	Forb/herb	FACU, FAC
Erigeron annuus	eastern daisy fleabane	Dicot	Annual	Forb/herb	FACU, FAC
Erigeron philadelphicus	Philadelphia fleabane	Dicot	Biennial, Perennial	Forb/herb	FACU, OBL
Erigeron pulchellus	robin's plantain	Dicot	Perennial Annual, Biennial,	Forb/herb	FACU, FACU+
Erigeron strigosus	prairie fleabane	Dicot	Perennial	Forb/herb	FACU, FAC
Erythronium americanum	dogtooth violet	Monocot	Perennial	Forb/herb	
Eubotrys racemosa	swamp doghobble	Dicot	Perennial	Shrub	

Euonymus americanus	bursting-heart	Dicot	Perennial	Forb/herb, Subshrub	
Euonymus atropurpureus	burningbush	Dicot	Perennial	Shrub, Tree	
Eupatoriadelphus fistulosus	trumpetweed	Dicot	Perennial	Forb/herb	FAC+, OBL
Eupatoriadelphus maculatus	spotted trumpetweed	Dicot	Perennial	Forb/herb, Subshrub	FACW-, OBL
Eupatorium altissimum	tall thoroughwort	Dicot	Perennial	Forb/herb	
Eupatorium perfoliatum	common boneset	Dicot	Perennial	Forb/herb	FACW+, OBL
Eupatorium purpureum	sweetscented joe pye weed	Dicot	Perennial	Forb/herb	
Eupatorium rotundifolium	roundleaf thoroughwort	Dicot	Perennial	Forb/herb	FAC-, FAC
Eupatorium sessilifolium	upland boneset	Dicot	Perennial	Forb/herb	
Euphorbia corollata	flowering spurge	Dicot	Perennial	Forb/herb	
Eurybia divaricata	white wood aster	Dicot	Perennial	Forb/herb	
Eurybia macrophylla	bigleaf aster	Dicot	Perennial	Forb/herb	
Eurybia schreberi	Schreber's aster	Dicot	Perennial	Forb/herb	
Euthamia graminifolia	flat-top goldentop	Dicot	Perennial	Forb/herb	FAC, FACW
Fagus grandifolia	American beech	Dicot	Perennial	Tree	FACU
Festuca subverticillata	nodding fescue	Monocot	Perennial	Graminoid	
Floerkea proserpinacoides	false mermaidweed	Dicot	Annual	Forb/herb	FAC, OBL
Fragaria vesca	woodland strawberry	Dicot	Perennial	Forb/herb	
Fragaria virginiana	Virginia strawberry	Dicot	Perennial	Forb/herb	UPL, FAC
Fraxinus americana	white ash	Dicot	Perennial	Tree	FACU
Fraxinus pennsylvanica	green ash	Dicot	Perennial	Tree	FAC, FACW
Galearis spectabilis	showy orchid	Monocot	Perennial	Forb/herb	
Galium aparine	stickywilly	Dicot	Annual	Vine, Forb/herb	FACU, FAC-
Galium boreale	northern bedstraw	Dicot	Perennial	Subshrub, Forb/herb	FACU, FAC
Galium circaezans	licorice bedstraw	Dicot	Perennial	Forb/herb	UPL, FACU-
Galium lanceolatum	lanceleaf wild licorice	Dicot	Perennial	Forb/herb	
Galium obtusum	bluntleaf bedstraw	Dicot	Perennial	Forb/herb	FACW-, OBL
Galium trifidum	threepetal bedstraw	Dicot	Perennial	Vine, Forb/herb	FACW, OBL
Galium triflorum	fragrant bedstraw	Dicot	Perennial	Forb/herb, Vine	FACU, FACU+
Gamochoeta purpurea	spoonleaf purple everlasting	Dicot	Annual, Biennial	Forb/herb	UPL, FACU
Gaylussacia baccata	black huckleberry	Dicot	Perennial	Shrub	FACU
Gaylussacia frondosa	blue huckleberry	Dicot	Perennial	Shrub	FAC

Gentiana andrewsii	closed bottle gentian	Dicot	Perennial	Forb/herb	FAC, FACW+
Gentiana clausa	bottle gentian	Dicot	Perennial	Forb/herb	FAC, FACW+
Gentiana saponaria	harvestbells	Dicot	Perennial	Forb/herb	FACW-, FACW
Gentianella quinquefolia	agueweed	Dicot	Annual, Perennial	Forb/herb	FAC, FACW-
Gentianopsis crinita	greater fringed gentian	Dicot	Biennial	Forb/herb	FACW+, OBL
Geranium carolinianum	Carolina geranium	Dicot	Annual, Biennial	Forb/herb	
Geranium maculatum	spotted geranium	Dicot	Perennial	Forb/herb	FACU
Geum aleppicum	yellow avens	Dicot	Perennial	Forb/herb	FACU, FACW+
Geum canadense	white avens	Dicot	Perennial	Forb/herb	FACU, FAC
Gleditsia triacanthos	honeylocust	Dicot	Perennial	Tree, Shrub	FACU, FAC
Glyceria melicaria	melic mannagrass	Monocot	Perennial	Graminoid	OBL
Glyceria septentrionalis	floating mannagrass	Monocot	Perennial	Graminoid	OBL
Glyceria striata	fowl mannagrass	Monocot	Perennial	Graminoid	OBL
Goodyera pubescens	downy rattlesnake plantain	Monocot	Perennial	Forb/herb	UPL, FAC
Gratiola neglecta	clammy hedgehyssop	Dicot	Annual, Biennial,	Forb/herb	OBL
Hackelia virginiana	beggarslice	Dicot	Perennial	Forb/herb	FACU, FAC+
Hamamelis virginiana	American witchhazel	Dicot	Perennial	Tree, Shrub	FACU, FAC-
Hedeoma pulegioides	American false pennyroyal	Dicot	Annual	Forb/herb	
Helenium autumnale	common sneezeweed	Dicot	Perennial	Forb/herb	FACW-, OBL
Helenium flexuosum	purplehead sneezeweed	Dicot	Perennial	Forb/herb	FAC-, FACW
Helianthemum bicknellii	hoary frostweed	Dicot	Perennial	Subshrub, Forb/herb	
Helianthus decapetalus	thinleaf sunflower	Dicot	Perennial	Forb/herb	UPL, FACU
Helianthus divaricatus	woodland sunflower	Dicot	Perennial	Forb/herb	
Helianthus giganteus	giant sunflower	Dicot	Perennial	Forb/herb	FACW
Helianthus tuberosus	Jerusalem artichoke	Dicot	Perennial	Forb/herb	FACU, FAC
Heliopsis helianthoides	smooth oxeye	Dicot	Perennial	Forb/herb	
Hepatica nobilis	hepatica	Dicot	Perennial	Forb/herb	
Heracleum maximum	common cowparsnip	Dicot	Perennial	Forb/herb	
Heteranthera dubia	grassleaf mudplantain	Monocot	Annual, Perennial	Forb/herb	
Heteranthera reniformis	kidneyleaf mudplantain	Monocot	Perennial	Forb/herb	OBL
Heuchera americana	American alumroot	Dicot	Perennial, Annual,	Forb/herb Subshrub,	FACU-, FACU
Hibiscus moscheutos	crimson-eyed rosemallow	Dicot	Perennial	Forb/herb	OBL
Hieracium gronovii	queendevil	Dicot	Perennial	Forb/herb	UPL, FACU
Hieracium	Allegheny hawkweed	Dicot	Perennial	Forb/herb	

paniculatum						
Hieracium scabrum	rough hawkweed	Dicot	Perennial	Forb/herb		
Hieracium venosum	rattlesnakeweed	Dicot	Perennial	Forb/herb		
Houstonia caerulea	azure bluet	Dicot	Perennial	Forb/herb	FACU, FAC	
Huperzia lucidula	shining clubmoss	Lycopod	Perennial	Subshrub, Forb/herb		
Hydrophyllum virginianum	eastern waterleaf	Dicot	Perennial	Forb/herb	FAC, FACW	
Hypericum gentianoides	orangegrass	Dicot	Annual Annual,	Forb/herb	UPL, FACU	
Hypericum mutilum	dwarf St. Johnswort	Dicot	Perennial	Forb/herb	FACW, FACW+	
Hypericum punctatum	spotted St. Johnswort	Dicot	Perennial	Forb/herb	FACU, FAC+	
Hypoxis hirsuta	common goldstar	Monocot	Perennial	Forb/herb	FAC, FACW	
Ilex laevigata	smooth winterberry	Dicot	Perennial	Tree, Shrub	FACW+, OBL	
Ilex opaca	American holly	Dicot	Perennial	Tree, Shrub	FACU, FAC-	
Ilex verticillata	common winterberry	Dicot	Perennial	Tree, Shrub	FACW, OBL	
Impatiens capensis	jewelweed	Dicot	Annual	Forb/herb	FACW, FACW+	
Impatiens pallida	pale touch-me-not	Dicot	Annual	Forb/herb	FACW	
Ionactis linariifolius	flaxleaf whitetop aster	Dicot	Perennial	Forb/herb		
Ipomoea pandurata	man of the earth	Dicot	Perennial	Vine, Forb/herb	FACU, FAC-	
Iris versicolor	harlequin blueflag	Monocot	Perennial	Forb/herb	OBL	
Isoetes engelmannii	Appalachian quillwort	Quillwort	Perennial	Graminoid	OBL	
Itea virginica	Virginia sweetspire	Dicot	Perennial	Shrub	FACW+, OBL	
Juglans cinerea	butternut	Dicot	Perennial	Tree	FACU-, FACU+	
Juglans nigra	black walnut	Dicot	Perennial	Tree	FACU	
Juncus acuminatus	tapertip rush	Monocot	Perennial	Graminoid	OBL	
Juncus bufonius	toad rush	Monocot	Annual	Graminoid	FACW, OBL	
Juncus effusus	common rush	Monocot	Perennial	Graminoid	FACW+, OBL	
Juncus marginatus	grassleaf rush	Monocot	Perennial	Graminoid	FACW, FACW+	
Juncus secundus	lopsided rush	Monocot	Perennial	Graminoid	FACU, FAC	
Juncus tenuis	poverty rush	Monocot	Perennial	Graminoid	FAC-, OBL	
Juniperus virginiana	eastern redcedar	Gymnosperm	Perennial	Tree	FACU-, FACU	
Justicia americana	American water-willow	Dicot	Perennial	Forb/herb	OBL	
Kalmia angustifolia	sheep laurel	Dicot	Perennial	Shrub	FAC	
Kalmia latifolia	mountain laurel	Dicot	Perennial	Tree, Shrub	FACU-, FACU	
Krigia biflora	twoflower dwarfdandelion	Dicot	Perennial Annual,	Forb/herb	UPL, FACU	
Lactuca biennis	tall blue lettuce	Dicot	Biennial Annual,	Forb/herb	FACU, FAC+	
Lactuca canadensis	Canada lettuce	Dicot	Biennial Annual,	Forb/herb	FACU-, FAC+	
Lactuca floridana	woodland lettuce	Dicot	Biennial	Forb/herb	FACU-, FAC+	
Laportea canadensis	Canadian woodnettle	Dicot	Perennial	Forb/herb	FAC, FACW	
Lechea intermedia	largepod pinweed	Dicot	Perennial	Forb/herb		

Lechea pulchella	Leggett's pinweed	Dicot	Perennial	Forb/herb	
Leersia oryzoides	rice cutgrass	Monocot	Perennial	Graminoid	OBL
Leersia virginica	whitegrass	Monocot	Perennial	Graminoid	FACW
Lemna minor	common duckweed	Monocot	Perennial	Forb/herb	OBL
Lemna valdiviana	valdivia duckweed	Monocot	Perennial	Forb/herb	OBL
			Annual, Biennial,		
Lepidium virginicum	Virginia pepperweed	Dicot	Perennial	Forb/herb	UPL, FAC-
Lespedeza capitata	roundhead lespedeza	Dicot	Perennial	Forb/herb	UPL, FACU
Lespedeza frutescens	shrubby lespedeza	Dicot	Perennial	Forb/herb	
Lespedeza hirta	hairy lespedeza	Dicot	Perennial	Forb/herb	
Lespedeza procumbens	trailing lespedeza	Dicot	Perennial	Forb/herb	
Lespedeza stuevei	tall lespedeza	Dicot	Perennial	Forb/herb	
Lespedeza violacea	violet lespedeza	Dicot	Perennial	Forb/herb	
Lespedeza virginica	slender lespedeza	Dicot	Perennial	Forb/herb	
Liatris spicata	dense blazing star	Dicot	Perennial	Forb/herb	FACU, FAC+
Lilium canadense	Canada lily	Monocot	Perennial	Forb/herb	FAC, FACW
Lilium philadelphicum	wood lily	Monocot	Perennial	Forb/herb	FACU-, FACW+
Lindera benzoin	northern spicebush	Dicot	Perennial	Tree, Shrub	FACW-, FACW
			Annual,		
Lindernia dubia	yellowseed false pimpernel	Dicot	Biennial	Forb/herb	FACW, OBL
Linum intercursum	sandplain flax	Dicot	Perennial	Forb/herb	
			Annual,		
Linum medium	stiff yellow flax	Dicot	Perennial	Forb/herb	UPL, FAC
Linum striatum	ridged yellow flax	Dicot	Perennial	Forb/herb	FACW-, FACW+
Liparis liliifolia	brown widelip orchid	Monocot	Perennial	Forb/herb	FACU-, FACU
Liparis loeselii	yellow widelip orchid	Monocot	Perennial	Forb/herb	FACW-, OBL
Liquidambar styraciflua	sweetgum	Dicot	Perennial	Tree	FAC, FACW
Liriodendron tulipifera	tuliptree	Dicot	Perennial	Tree	FACU, FAC
Lobelia cardinalis	cardinalflower	Dicot	Perennial	Forb/herb	FACW+, OBL
Lobelia inflata	Indian-tobacco	Dicot	Annual	Forb/herb	FACU-, FAC
Lobelia siphilitica	great blue lobelia	Dicot	Perennial	Forb/herb	FACW+, OBL
Lobelia spicata	palespike lobelia	Dicot	Perennial	Forb/herb	FAC-, FAC
Lonicera dioica	limber honeysuckle	Dicot	Perennial	Vine	FACU
Lonicera sempervirens	trumpet honeysuckle	Dicot	Perennial	Vine	FACU, FAC
Ludwigia alternifolia	seedbox	Dicot	Perennial	Forb/herb	FACW+, OBL
Ludwigia palustris	marsh seedbox	Dicot	Perennial	Forb/herb	OBL
Luzula echinata	hedgehog woodrush	Monocot	Perennial	Graminoid	FACU, FAC
Lycopodium digitatum	fan clubmoss	Lycopod	Perennial	Subshrub, Forb/herb	
Lycopodium obscurum	rare clubmoss	Lycopod	Perennial	Subshrub, Forb/herb	FACU-, FACU

<i>Lycopus americanus</i>	American water horehound	Dicot	Perennial	Forb/herb	OBL
<i>Lycopus uniflorus</i>	northern bugleweed	Dicot	Perennial	Forb/herb	OBL
<i>Lycopus virginicus</i>	Virginia water horehound	Dicot	Perennial	Forb/herb	OBL
<i>Lyonia ligustrina</i>	maleberry	Dicot	Perennial	Shrub	FACW
<i>Lysimachia ciliata</i>	fringed loosestrife	Dicot	Perennial	Forb/herb	FACW-, FACW+
<i>Lysimachia quadrifolia</i>	whorled yellow loosestrife	Dicot	Perennial	Forb/herb	UPL, FACU
<i>Lysimachia terrestris</i>	earth loosestrife	Dicot	Perennial	Forb/herb	OBL
<i>Maclura pomifera</i>	osage orange	Dicot	Perennial	Tree, Shrub	UPL, FACU
<i>Magnolia virginiana</i>	sweetbay	Dicot	Perennial	Tree, Shrub	FACW+, OBL
<i>Maianthemum canadense</i>	Canada mayflower	Monocot	Perennial	Forb/herb	FACU, FAC
<i>Maianthemum racemosum</i>	feathery false lily of the valley	Monocot	Perennial	Forb/herb	
<i>Malus coronaria</i>	sweet crab apple	Dicot	Perennial	Tree, Shrub	
<i>Malus ioensis</i>	prairie crab apple	Dicot	Perennial	Tree, Shrub	
<i>Menispermum canadense</i>	common moonseed	Dicot	Perennial	Vine	FAC
<i>Mentha Ã—piperita</i>	peppermint	Dicot	Perennial	Forb/herb	FACW, OBL
<i>Mentha arvensis</i>	wild mint	Dicot	Perennial	Forb/herb	FAC, FACW
<i>Mertensia virginica</i>	Virginia bluebells	Dicot	Perennial	Forb/herb	FAC+, FACW
<i>Mikania scandens</i>	climbing hempvine	Dicot	Perennial	Vine, Forb/herb	FACU, OBL
<i>Mimulus ringens</i>	Allegheny monkeyflower	Dicot	Perennial	Forb/herb	OBL
<i>Mirabilis nyctaginea</i>	heartleaf four o'clock	Dicot	Perennial	Forb/herb	UPL, FACU
<i>Mitchella repens</i>	partridgeberry	Dicot	Perennial	Forb/herb	FACU, FAC
<i>Mitella diphylla</i>	twoleaf miterwort	Dicot	Perennial	Forb/herb	FACU-, FACU+
<i>Mollugo verticillata</i>	green carpetweed	Dicot	Annual	Forb/herb	FAC-, FAC
<i>Monarda didyma</i>	scarlet beebalm	Dicot	Perennial	Forb/herb	UPL, FAC+
<i>Monarda fistulosa</i>	wild bergamot	Dicot	Perennial	Forb/herb	UPL, FAC+
<i>Monotropa hypopithys</i>	piresap	Dicot	Perennial	Forb/herb	
<i>Monotropa uniflora</i>	Indianpipe	Dicot	Perennial	Forb/herb	UPL, FACU
<i>Morella pensylvanica</i>	northern bayberry	Dicot	Perennial	Tree, Shrub	
<i>Morus rubra</i>	red mulberry	Dicot	Perennial	Tree	FACU, FAC
<i>Muhlenbergia capillaris</i>	hairawn muhly	Monocot	Perennial	Graminoid	FACU-, FACW+
<i>Muhlenbergia frondosa</i>	wirestem muhly	Monocot	Perennial	Graminoid	FAC, FACW
<i>Muhlenbergia schreberi</i>	nimblewill	Monocot	Perennial	Graminoid	FACU, FAC
<i>Muhlenbergia tenuiflora</i>	slimflower muhly	Monocot	Perennial Annual, Biennial,	Graminoid	
<i>Myosotis laxa</i>	bay forget-me-not	Dicot	Perennial	Forb/herb	OBL

<i>Myosotis verna</i>	spring forget-me-not	Dicot	Annual, Biennial	Forb/herb	FAC-, FAC
<i>Najas flexilis</i>	nodding waternymph	Monocot	Annual	Forb/herb	OBL
<i>Nuphar lutea</i>	yellow pond-lily	Dicot	Perennial	Forb/herb	OBL
<i>Nymphaea odorata</i>	American white waterlily	Dicot	Perennial	Forb/herb	OBL
<i>Nyssa sylvatica</i>	blackgum	Dicot	Perennial	Tree	FAC
<i>Obolaria virginica</i>	Virginia pennywort	Dicot	Perennial	Forb/herb	
<i>Oenothera biennis</i>	common evening primrose narrowleaf evening	Dicot	Biennial	Forb/herb	FACU-, FACU+
<i>Oenothera fruticosa</i>	primrose	Dicot	Perennial	Forb/herb	FACU, FAC
<i>Oenothera parviflora</i>	northern evening primrose	Dicot	Biennial	Forb/herb	FACU-, FACU
<i>Oenothera perennis</i>	little evening primrose	Dicot	Perennial	Forb/herb	FAC-, FAC
<i>Onoclea sensibilis</i>	sensitive fern	Fern	Perennial	Forb/herb	FACW
<i>Ophioglossum vulgatum</i>	southern adderstongue	Fern	Perennial	Forb/herb	FAC, FACW
<i>Opuntia humifusa</i>	devil's-tongue	Dicot	Perennial	Shrub	
<i>Orobanche uniflora</i>	oneflowered broomrape	Dicot	Annual	Forb/herb	UPL, FACU
<i>Orontium aquaticum</i>	goldenclub	Monocot	Perennial	Forb/herb	OBL
<i>Osmorhiza claytonii</i>	Clayton's sweetroot	Dicot	Perennial	Forb/herb	FACU-, FAC-
<i>Osmorhiza longistylis</i>	longstyle sweetroot	Dicot	Perennial	Forb/herb	FACU-, FACW
<i>Osmunda cinnamomea</i>	cinnamon fern	Fern	Perennial	Forb/herb	FACW, OBL
<i>Osmunda claytoniana</i>	interrupted fern	Fern	Perennial	Forb/herb	FAC, FAC+
<i>Osmunda regalis</i>	royal fern	Fern	Perennial	Forb/herb	OBL
<i>Ostrya virginiana</i>	hophornbeam	Dicot	Perennial Annual,	Tree, Shrub	FACU-, FACU+
<i>Oxalis corniculata</i>	creeping woodsorrel	Dicot	Perennial	Forb/herb	UPL, FACU
<i>Oxalis dillenii</i>	slender yellow woodsorrel	Dicot	Perennial	Forb/herb	
<i>Oxalis stricta</i>	common yellow oxalis	Dicot	Perennial	Forb/herb	
<i>Oxalis violacea</i>	violet woodsorrel	Dicot	Perennial	Forb/herb	
<i>Packera aurea</i>	golden ragwort	Dicot	Perennial	Forb/herb	
<i>Packera paupercula</i>	balsam groundsel	Dicot	Perennial	Forb/herb	
<i>Panax quinquefolius</i>	American ginseng	Dicot	Perennial	Forb/herb	
<i>Panax trifolius</i>	dwarf ginseng	Dicot	Perennial	Forb/herb	
<i>Panicum capillare</i>	witchgrass	Monocot	Annual	Graminoid	FACU, FAC
<i>Panicum dichotomiflorum</i>	fall panicgrass	Monocot	Annual	Graminoid	FACU, FACW
<i>Panicum rigidulum</i>	redtop panicgrass	Monocot	Perennial	Graminoid	FAC, OBL
<i>Paronychia canadensis</i>	smooth forked nailwort	Dicot	Annual	Forb/herb	
<i>Paronychia fastigiata</i>	hairy forked nailwort	Dicot	Annual	Forb/herb	
<i>Parthenocissus quinquefolia</i>	Virginia creeper	Dicot	Perennial	Vine	FACU, FAC
<i>Paspalum setaceum</i>	thin paspalum	Monocot	Perennial	Graminoid	UPL, FAC
<i>Pedicularis canadensis</i>	Canadian lousewort	Dicot	Perennial	Subshrub, Forb/herb	FACU, FAC+

<i>Peltandra virginica</i>	green arrow arum	Monocot	Perennial	Forb/herb	OBL
<i>Penstemon digitalis</i>	talus slope penstemon	Dicot	Perennial	Forb/herb	FAC-, FACW-
<i>Penstemon hirsutus</i>	hairy beardtongue	Dicot	Perennial	Forb/herb	
<i>Penstemon laevigatus</i>	eastern smooth beardtongue	Dicot	Perennial	Forb/herb	FACU, FAC
<i>Penthorum sedoides</i>	ditch stonecrop	Dicot	Perennial	Forb/herb	OBL
<i>Phalaris arundinacea</i>	reed canarygrass	Monocot	Perennial	Graminoid	FACW, OBL
<i>Phegopteris hexagonoptera</i>	broad beechfern	Fern	Perennial	Forb/herb Subshrub, Shrub,	
<i>Phlox divaricata</i>	wild blue phlox	Dicot	Perennial	Forb/herb	UPL, FACU
<i>Phlox maculata</i>	wild sweetwilliam	Dicot	Perennial	Forb/herb	FAC, FACW+
<i>Phlox paniculata</i>	fall phlox	Dicot	Perennial	Forb/herb Subshrub, Shrub,	FACU
<i>Phlox pilosa</i>	downy phlox	Dicot	Perennial	Forb/herb	FACU, FAC
<i>Phlox subulata</i>	moss phlox	Dicot	Perennial	Subshrub, Shrub, Forb/herb	
<i>Photinia pyrifolia</i>	red chokeberry	Dicot	Perennial	Shrub Subshrub, Shrub,	
<i>Phragmites australis</i>	common reed	Monocot	Perennial	Graminoid	FACW, OBL
<i>Phryma leptostachya</i>	American lopseed	Dicot	Perennial	Forb/herb	UPL, FAC
<i>Physalis heterophylla</i>	clammy groundcherry	Dicot	Perennial	Forb/herb	
<i>Physalis longifolia</i>	longleaf groundcherry	Dicot	Perennial	Forb/herb	
<i>Physocarpus opulifolius</i>	common ninebark	Dicot	Perennial	Shrub	UPL, FACW-
<i>Physostegia virginiana</i>	obedient plant	Dicot	Perennial	Forb/herb	FAC+, OBL
<i>Phytolacca americana</i>	American pokeweed	Dicot	Perennial	Forb/herb	FACU+, FAC
<i>Pilea pumila</i>	Canadian clearweed	Dicot	Annual	Forb/herb	FAC, FACW
<i>Pinus rigida</i>	pitch pine	Gymnosperm	Perennial	Tree	FACU-, FACU
<i>Pinus strobus</i>	eastern white pine	Gymnosperm	Perennial	Tree	FACU
<i>Pinus virginiana</i>	Virginia pine	Gymnosperm	Perennial	Tree	
<i>Plantago pusilla</i>	dwarf plantain	Dicot	Annual	Forb/herb	UPL, FAC
<i>Plantago rugelii</i>	blackseed plantain	Dicot	Perennial	Forb/herb	FACU, FAC
<i>Plantago virginica</i>	Virginia plantain	Dicot	Annual, Biennial	Forb/herb	UPL, FACW
<i>Platanthera flava</i>	palegreen orchid	Monocot	Perennial	Forb/herb	FACW
<i>Platanthera lacera</i>	green fringed orchid	Monocot	Perennial	Forb/herb	FACW
<i>Platanthera psycodes</i>	lesser purple fringed orchid	Monocot	Perennial	Forb/herb	FACW-, FACW
<i>Platanus occidentalis</i>	American sycamore	Dicot	Perennial	Tree	FAC, FACW
<i>Poa sylvestris</i>	woodland bluegrass	Monocot	Perennial	Graminoid	FACU, FACW
<i>Podophyllum peltatum</i>	mayapple	Dicot	Perennial	Forb/herb	FACU-, FACU
<i>Podostemum</i>	hornleaf riverweed	Dicot	Perennial	Forb/herb	OBL

ceratophyllum

Polemonium reptans	Greek valerian	Dicot	Perennial	Subshrub, Forb/herb	FACU, FAC
Polygala nuttallii	Nuttall's milkwort	Dicot	Annual	Forb/herb	FAC
Polygala paucifolia	gaywings	Dicot	Perennial	Forb/herb	FACU
Polygala sanguinea	purple milkwort	Dicot	Annual	Forb/herb	FACU, FACW
Polygala verticillata	whorled milkwort	Dicot	Annual	Forb/herb	UPL, FAC-
Polygonatum biflorum	smooth Solomon's seal	Monocot	Perennial	Forb/herb	UPL, FAC-
Polygonatum pubescens	hairy Solomon's seal	Monocot	Perennial	Forb/herb	
Polygonum arifolium	halberdleaf tearthumb	Dicot	Annual	Vine, Forb/herb	OBL
Polygonum hydropiperoides	swamp smartweed	Dicot	Perennial	Forb/herb	OBL
Polygonum lapathifolium	curlytop knotweed	Dicot	Annual	Forb/herb	FAC, OBL
Polygonum pennsylvanicum	Pennsylvania smartweed	Dicot	Annual	Forb/herb	FACW-, OBL
Polygonum punctatum	dotted smartweed	Dicot	Annual, Perennial	Forb/herb	FACW, OBL
Polygonum sagittatum	arrowleaf tearthumb	Dicot	Annual, Perennial	Vine, Forb/herb	OBL
Polygonum tenue	pleatleaf knotweed	Dicot	Annual	Forb/herb	
Polygonum virginianum	jumpseed	Dicot	Annual, Perennial	Forb/herb	FAC, FACW
Polypodium virginianum	rock polypody	Fern	Perennial	Forb/herb	
Polystichum acrostichoides	Christmas fern	Fern	Perennial	Forb/herb	UPL, FAC
Pontederia cordata	pickerelweed	Monocot	Perennial	Forb/herb	OBL
Populus grandidentata	bigtooth aspen	Dicot	Perennial	Tree	FACU-, FACU
Populus tremuloides	quaking aspen	Dicot	Perennial	Tree	
Potamogeton amplifolius	largeleaf pondweed	Monocot	Perennial	Forb/herb	OBL
Potamogeton gramineus	variableleaf pondweed	Monocot	Perennial	Forb/herb	OBL
Potamogeton natans	floating pondweed	Monocot	Perennial	Forb/herb	OBL
Potamogeton nodosus	longleaf pondweed	Monocot	Perennial	Forb/herb	OBL
Potamogeton perfoliatus	claspingleaf pondweed	Monocot	Perennial	Forb/herb	OBL
Potamogeton pusillus	small pondweed	Monocot	Perennial	Forb/herb	OBL
Potamogeton robbinsii	Robbins' pondweed	Monocot	Perennial	Forb/herb	OBL
Potentilla canadensis	dwarf cinquefoil	Dicot	Annual, Perennial	Forb/herb	
Potentilla norvegica	Norwegian cinquefoil	Dicot	Biennial,	Forb/herb	FACU, FAC

			Perennial		
<i>Potentilla simplex</i>	common cinquefoil	Dicot	Perennial	Forb/herb	UPL, FACU
<i>Prenanthes alba</i>	white rattlesnakeroot	Dicot	Perennial	Forb/herb	FACU
<i>Prenanthes altissima</i>	tall rattlesnakeroot	Dicot	Perennial	Forb/herb	UPL, FACU
<i>Proserpinaca palustris</i>	marsh mermaidweed	Dicot	Perennial	Forb/herb	OBL
<i>Prunella vulgaris</i>	common selfheal	Dicot	Perennial	Forb/herb	FACU, FACW
<i>Prunus americana</i>	American plum	Dicot	Perennial	Tree, Shrub	UPL, FACU
<i>Prunus maritima</i>	beach plum	Dicot	Perennial	Shrub	
<i>Prunus pensylvanica</i>	pin cherry	Dicot	Perennial	Tree, Shrub	FACU-, FAC-
<i>Prunus serotina</i>	black cherry	Dicot	Perennial	Tree, Shrub	FACU
<i>Prunus virginiana</i>	chokecherry	Dicot	Perennial	Tree, Shrub	FACU-, FAC
<i>Pseudognaphalium obtusifolium</i>	rabbit-tobacco	Dicot	Annual, Biennial	Forb/herb	
<i>Ptelea trifoliata</i>	common hoptree	Dicot	Perennial	Tree, Shrub	UPL, FAC
<i>Pteridium aquilinum</i>	western brackenfern	Fern	Perennial	Forb/herb	FACU-, FAC-
<i>Pycnanthemum muticum</i>	clustered mountainmint	Dicot	Perennial	Forb/herb	UPL, FACW
<i>Pycnanthemum tenuifolium</i>	narrowleaf mountainmint	Dicot	Perennial	Forb/herb	FAC-, FACW
<i>Pycnanthemum virginianum</i>	Virginia mountainmint	Dicot	Perennial	Forb/herb	FAC, FACW+
<i>Pyrola americana</i>	American wintergreen	Dicot	Perennial	Subshrub	
<i>Pyrola elliptica</i>	waxflower shinleaf	Dicot	Perennial	Subshrub	
<i>Quercus</i> \bar{A} — <i>heterophylla</i>		Dicot	Perennial	Tree	
<i>Quercus alba</i>	white oak	Dicot	Perennial	Tree	FACU-, FACU+
<i>Quercus bicolor</i>	swamp white oak	Dicot	Perennial	Tree	FACW+, OBL
<i>Quercus coccinea</i>	scarlet oak	Dicot	Perennial	Tree	
<i>Quercus ilicifolia</i>	bear oak	Dicot	Perennial	Tree, Shrub	
<i>Quercus palustris</i>	pin oak	Dicot	Perennial	Tree	FAC, FACW
<i>Quercus prinus</i>	chestnut oak	Dicot	Perennial	Tree	UPL, FACU-
<i>Quercus rubra</i>	northern red oak	Dicot	Perennial	Tree	FACU-, FACU+
<i>Quercus velutina</i>	black oak	Dicot	Perennial	Tree	
<i>Ranunculus abortivus</i>	littleleaf buttercup	Dicot	Biennial, Perennial	Forb/herb	FAC, FACW
<i>Ranunculus hispidus</i>	bristly buttercup	Dicot	Perennial	Forb/herb	FAC, FACW
<i>Ranunculus pennsylvanicus</i>	Pennsylvania buttercup	Dicot	Annual, Perennial	Forb/herb	FACW, OBL
<i>Ranunculus pusillus</i>	low spearwort	Dicot	Annual	Forb/herb	FACW+, OBL
<i>Ranunculus recurvatus</i>	blisterwort	Dicot	Perennial	Forb/herb	FAC, FACW+
<i>Rhexia virginica</i>	handsome Harry	Dicot	Perennial	Forb/herb	FACW+, OBL
<i>Rhododendron maximum</i>	great laurel	Dicot	Perennial	Tree, Shrub	FAC-, FAC
<i>Rhododendron</i>	pink azalea	Dicot	Perennial	Shrub	FAC

periclymenoides						
Rhododendron						
prinophyllum	early azalea	Dicot	Perennial	Shrub		FAC, FAC+
Rhododendron						
viscosum	swamp azalea	Dicot	Perennial	Shrub		FACW+, OBL
Rhus aromatica	fragrant sumac	Dicot	Perennial	Shrub		
Rhus copallinum	winged sumac	Dicot	Perennial	Tree, Shrub		UPL, NI
Rhus glabra	smooth sumac	Dicot	Perennial	Tree, Shrub		
Rhus typhina	staghorn sumac	Dicot	Perennial	Shrub, Tree		
Ribes americanum	American black currant	Dicot	Perennial	Shrub		FAC, FACW
Ribes rotundifolium	Appalachian gooseberry	Dicot	Perennial	Shrub		
Robinia hispida	bristly locust	Dicot	Perennial	Tree, Shrub		
Robinia pseudoacacia	black locust	Dicot	Perennial	Tree		UPL, FAC
Robinia viscosa	clammy locust	Dicot	Perennial	Tree, Shrub		
			Annual, Biennial,			
Rorippa palustris	bog yellowcress	Dicot	Perennial	Forb/herb		FAC, OBL
Rosa carolina	Carolina rose	Dicot	Perennial	Subshrub		UPL, FACU
Rosa palustris	swamp rose	Dicot	Perennial	Subshrub		OBL
Rosa virginiana	Virginia rose	Dicot	Perennial	Subshrub		FAC
Rubus allegheniensis	Allegheny blackberry	Dicot	Perennial	Subshrub		UPL, FACW
Rubus flagellaris	northern dewberry	Dicot	Perennial	Subshrub		UPL, FACU-
Rubus hispidus	bristly dewberry	Dicot	Perennial	Subshrub		FACW
Rubus occidentalis	black raspberry	Dicot	Perennial	Subshrub		
Rubus odoratus	purpleflowering raspberry	Dicot	Perennial	Subshrub		
Rubus ostryifolius	highbush blackberry	Dicot	Perennial	Subshrub		
Rubus pensilvanicus	Pennsylvania blackberry	Dicot	Perennial	Subshrub		
Rudbeckia fulgida	orange coneflower	Dicot	Perennial	Forb/herb		FAC, OBL
			Annual, Biennial,			
Rudbeckia hirta	blackeyed Susan	Dicot	Perennial	Forb/herb Subshrub,		FACU-, FACU
Rudbeckia laciniata	cutleaf coneflower	Dicot	Perennial	Forb/herb		FACU, FACW+
Rudbeckia triloba	browneyed Susan	Dicot	Perennial	Forb/herb		FACU-, FAC-
Sabatia angularis	rosepink	Dicot	Annual	Forb/herb		FAC, FAC+
Sagittaria australis	longbeak arrowhead	Monocot	Perennial	Forb/herb		
Sagittaria latifolia	broadleaf arrowhead	Monocot	Perennial	Forb/herb		OBL
Sagittaria rigida	sessilefruit arrowhead	Monocot	Perennial	Forb/herb		OBL
Salix discolor	pussy willow	Dicot	Perennial	Tree, Shrub		FACW
Salix eriocephala	Missouri River willow	Dicot	Perennial	Tree, Shrub		FACW
Salix humilis	prairie willow	Dicot	Perennial	Shrub		FACU
Salix lucida	shining willow	Dicot	Perennial	Tree, Shrub		FACW, FACW+
Salix nigra	black willow	Dicot	Perennial	Tree		UPL, OBL
Salix sericea	silky willow	Dicot	Perennial	Tree, Shrub		OBL
Sanguinaria						
canadensis	bloodroot	Dicot	Perennial	Forb/herb		UPL, FACU-

Sanguisorba canadensis	Canadian burnet	Dicot	Perennial	Forb/herb	FACW, FACW+
Sanicula canadensis	Canadian blacksnakeroot	Dicot	Biennial	Forb/herb	UPL, FACU+
Sanicula marilandica	Maryland sanicle	Dicot	Perennial	Forb/herb	FACU?
Sanicula odorata	clustered blacksnakeroot	Dicot	Perennial	Forb/herb	
Sanicula trifoliata	largefruit blacksnakeroot	Dicot	Perennial	Forb/herb	
Sassafras albidum	sassafras	Dicot	Perennial	Tree, Shrub	FACU-, FACU
Saururus cernuus	lizard's tail	Dicot	Perennial	Forb/herb	OBL
Saxifraga virginiensis	early saxifrage	Dicot	Perennial	Forb/herb	FAC-, FAC
Schizachyrium scoparium	little bluestem	Monocot	Perennial	Graminoid	FACU-, FACU+
Schoenoplectus tabernaemontani	softstem bulrush	Monocot	Perennial	Graminoid	
Scirpus atrovirens	green bulrush	Monocot	Perennial	Graminoid	OBL
Scirpus cyperinus	woolgrass	Monocot	Perennial	Graminoid	FACW+, OBL
Scirpus polyphyllus	leafy bulrush	Monocot	Perennial	Graminoid	OBL
Scutellaria elliptica	hairy skullcap	Dicot	Perennial	Forb/herb	
Scutellaria integrifolia	helmet flower	Dicot	Perennial	Forb/herb	FAC, FACW
Scutellaria lateriflora	blue skullcap	Dicot	Perennial	Forb/herb	FACW, OBL
Scutellaria parvula	small skullcap	Dicot	Perennial	Forb/herb	UPL, FACU
Sedum ternatum	woodland stonecrop	Dicot	Perennial	Forb/herb	
Selaginella apoda	meadow spikemoss	Lycopod	Perennial	Forb/herb	FACW-, FACW+
Selaginella rupestris	northern selaginella	Lycopod	Perennial	Forb/herb	
Senna hebecarpa	American senna	Dicot	Perennial	Forb/herb	
Sericocarpus asteroides	toothed whitetop aster	Dicot	Perennial	Forb/herb	
Setaria parviflora	marsh bristlegrass	Monocot	Perennial	Graminoid	
Sicyos angulatus	oneseed bur cucumber	Dicot	Annual	Vine, Forb/herb	FACU, FACW-
Silene antirrhina	sleepy silene	Dicot	Annual	Forb/herb	
Silene stellata	widowsfrill	Dicot	Perennial	Forb/herb	
Silphium perfoliatum	cup plant	Dicot	Perennial	Forb/herb	FACU, FACW
Sisyrinchium angustifolium	narrowleaf blue-eyed grass	Monocot	Perennial	Forb/herb	FACU, FACW-
Sisyrinchium mucronatum	needletip blue-eyed grass	Monocot	Perennial	Forb/herb	FAC+, FACW-
Sium suave	hemlock waterparsnip	Dicot	Perennial	Forb/herb	OBL
Smilax glauca	cat greenbrier	Monocot	Perennial	Shrub, Vine	UPL, FAC
Smilax herbacea	smooth carrionflower	Monocot	Perennial	Vine, Forb/herb	FAC
Smilax rotundifolia	roundleaf greenbrier	Monocot	Perennial	Shrub, Vine Subshrub,	FAC
Solanum carolinense	Carolina horsenettle	Dicot	Perennial	Forb/herb	UPL, FACU
Solanum ptycanthum	West Indian nightshade	Dicot	Annual	Forb/herb	
Solidago arguta	Atlantic goldenrod	Dicot	Perennial	Forb/herb	
Solidago bicolor	white goldenrod	Dicot	Perennial	Forb/herb	
Solidago caesia	wreath goldenrod	Dicot	Perennial	Forb/herb	FACU

Solidago canadensis	Canada goldenrod	Dicot	Perennial	Forb/herb	FACU, FACU+
Solidago flexicaulis	zigzag goldenrod	Dicot	Perennial	Forb/herb	FACU
Solidago gigantea	giant goldenrod	Dicot	Perennial	Forb/herb	FAC, FACW
Solidago juncea	early goldenrod	Dicot	Perennial	Forb/herb	
Solidago nemoralis	gray goldenrod	Dicot	Perennial	Forb/herb	
Solidago rugosa	wrinkleleaf goldenrod	Dicot	Perennial	Forb/herb	FAC, FAC+
Solidago squarrosa	stout goldenrod	Dicot	Perennial	Forb/herb	
Solidago ulmifolia	elmleaf goldenrod	Dicot	Perennial	Forb/herb	
Sorghastrum nutans	Indiangrass	Monocot	Perennial	Graminoid	UPL, FACW
Sparganium americanum	American bur-reed	Monocot	Perennial	Forb/herb	OBL
Sphenopholis intermedia	slender wedgescale	Monocot	Perennial	Graminoid	
Sphenopholis obtusata	prairie wedgescale	Monocot	Perennial	Graminoid	FAC-, FACW+
Spiraea alba	white meadowsweet	Dicot	Perennial	Shrub	FACW, FACW+
Spiraea tomentosa	steepleshrub	Dicot	Perennial	Shrub	FACW
Spiranthes cernua	nodding lady's tresses northern slender lady's tresses	Monocot	Perennial	Forb/herb	FACW-, FACW+
Spiranthes lacera	tresses	Monocot	Perennial	Forb/herb	FACU-, FAC+
Spiranthes laciniata	lacelip lady's tresses	Monocot	Perennial	Forb/herb	FACW+, OBL
Sporobolus neglectus	puffsheath dropseed	Monocot	Annual	Graminoid	UPL, FACU-
Stachys pilosa	hairy hedgenettle	Dicot	Perennial	Forb/herb	
Stachys tenuifolia	smooth hedgenettle	Dicot	Perennial	Forb/herb	FACW-, OBL
Staphylea trifolia	American bladdernut	Dicot	Perennial	Tree, Shrub	FAC
Stellaria longifolia	longleaf starwort	Dicot	Perennial	Forb/herb	FAC, OBL
Strophostyles helvola	amberique-bean	Dicot	Annual	Vine, Forb/herb	
Symphoricarpos orbiculatus	coralberry	Dicot	Perennial	Shrub	UPL, FAC-
Symphyotrichum cordifolium	common blue wood aster	Dicot	Perennial	Forb/herb	
Symphyotrichum dumosum	rice button aster	Dicot	Perennial	Forb/herb	
Symphyotrichum laeve	smooth blue aster	Dicot	Perennial	Forb/herb	
Symphyotrichum lanceolatum	white panicle aster	Dicot	Perennial	Forb/herb	
Symphyotrichum lateriflorum	calico aster	Dicot	Perennial	Forb/herb	
Symphyotrichum lowrieianum	Lowrie's blue wood aster	Dicot	Perennial	Forb/herb	
Symphyotrichum novae-angliae	New England aster	Dicot	Perennial	Forb/herb	
Symphyotrichum novi-belgii	New York aster	Dicot	Perennial	Forb/herb	
Symphyotrichum patens	late purple aster	Dicot	Perennial	Forb/herb	

Symphyotrichum pilosum	hairy white oldfield aster	Dicot	Perennial	Forb/herb	
Symphyotrichum praealtum	willowleaf aster	Dicot	Perennial	Forb/herb	
Symphyotrichum puniceum	purplestem aster	Dicot	Perennial	Forb/herb, Subshrub	
Symphyotrichum undulatum	wavyleaf aster	Dicot	Perennial	Forb/herb	
Symplocarpus foetidus	skunk cabbage	Monocot	Perennial	Forb/herb	OBL
Taenidia integerrima	yellow pimpernel	Dicot	Perennial	Forb/herb Subshrub,	
Tephrosia virginiana	Virginia tephrosia	Dicot	Perennial	Forb/herb	
Teucrium canadense	Canada germander	Dicot	Perennial	Forb/herb	FAC+, FACW
Thalictrum dioicum	early meadow-rue	Dicot	Perennial	Forb/herb	FACU+, FACW
Thalictrum pubescens	king of the meadow	Dicot	Perennial	Forb/herb	FAC, FACW+
Thalictrum thalictroides	rue anemone	Dicot	Perennial	Forb/herb	
Thaspium barbinode	hairyjoint meadowparsnip	Dicot	Perennial	Forb/herb	UPL, FAC
Thaspium trifoliatum	purple meadowparsnip	Dicot	Perennial	Forb/herb	
Thelypteris noveboracensis	New York fern	Fern	Perennial	Forb/herb	FAC, FAC+
Thelypteris palustris	eastern marsh fern	Fern	Perennial	Forb/herb	
Tilia americana	American basswood	Dicot	Perennial	Tree	FACU
Torreyochloa pallida	pale false mannagrass	Monocot	Perennial	Graminoid Shrub,	
Toxicodendron radicans	eastern poison ivy	Dicot	Perennial	Forb/herb, Subshrub	FACU, FACW
Tridens flavus	purpletop tridens	Monocot	Perennial	Graminoid	UPL, FACU
Trillium cernuum	whip-poor-will flower	Monocot	Perennial	Forb/herb	FAC, FACW
Triodanis perfoliata	clasping Venus' looking-glass	Dicot	Annual	Forb/herb	UPL, FAC
Triosteum angustifolium	yellowfruit horse-gentian	Dicot	Perennial	Forb/herb	
Triosteum perfoliatum	feverwort	Dicot	Perennial	Forb/herb	
Tsuga canadensis	eastern hemlock	Gymnosperm	Perennial	Tree	FACU
Typha latifolia	broadleaf cattail	Monocot	Perennial	Forb/herb	OBL
Ulmus americana	American elm	Dicot	Perennial	Tree	FAC, FACW
Ulmus rubra	slippery elm	Dicot	Perennial	Tree	FAC
Utricularia macrorhiza	common bladderwort	Dicot	Perennial	Forb/herb	OBL
Uvularia perfoliata	perfoliate bellwort	Monocot	Perennial	Forb/herb	FACU
Uvularia sessilifolia	sessileleaf bellwort	Monocot	Perennial	Forb/herb	FACU-, FAC+
Vaccinium angustifolium	lowbush blueberry	Dicot	Perennial	Subshrub, Shrub	FACU-, FACU
Vaccinium corymbosum	highbush blueberry	Dicot	Perennial	Shrub	FACW-, FACW

Vaccinium fuscatum	black highbush blueberry	Dicot	Perennial	Shrub Subshrub,	FAC+
Vaccinium pallidum	Blue Ridge blueberry	Dicot	Perennial	Shrub	
Vaccinium stamineum	deerberry	Dicot	Perennial	Shrub	FACU-, FACU+
Veratrum latifolium	slender bunchflower	Monocot	Perennial	Forb/herb	
Veratrum virginicum	Virginia bunchflower	Monocot	Perennial	Forb/herb	
Veratrum viride	green false hellebore	Monocot	Perennial Biennial,	Forb/herb	FACU, OBL
Verbena hastata	swamp verbena	Dicot	Perennial	Forb/herb	FAC, FACW+
Verbena simplex	narrowleaf vervain	Dicot	Perennial	Forb/herb	
Verbena urticifolia	white vervain	Dicot	Perennial	Forb/herb	UPL, FAC+
Vernonia noveboracensis	New York ironweed	Dicot	Perennial Biennial,	Forb/herb	FAC+, FACW+
Veronica anagallis-aquatica	water speedwell	Dicot	Perennial	Forb/herb	OBL
Veronica peregrina	neckweed	Dicot	Annual	Forb/herb	FACU-, OBL
Veronica scutellata	skullcap speedwell	Dicot	Perennial	Forb/herb	OBL
Veronicastrum virginicum	Culver's root	Dicot	Perennial	Forb/herb Shrub,	FACU, FACW
Viburnum acerifolium	mapleleaf viburnum	Dicot	Perennial	Subshrub	UPL, FACU
Viburnum dentatum	southern arrowwood	Dicot	Perennial	Tree, Shrub	FAC
Viburnum lentago	nannyberry	Dicot	Perennial	Tree, Shrub	FACU, FAC+
Viburnum prunifolium	blackhaw	Dicot	Perennial	Tree, Shrub	FACU, FACU+
Viburnum rafinesqueanum	downy arrowwood	Dicot	Perennial	Shrub	
Viburnum recognitum	southern arrowwood	Dicot	Perennial	Shrub, Tree	FACW-, FACW
Vicia caroliniana	Carolina vetch	Dicot	Perennial	Vine, Forb/herb	UPL, FACU
Viola Å—palmata	early blue violet	Dicot	Perennial	Forb/herb	
Viola Å—primulifolia		Dicot	Perennial Annual,	Forb/herb	FAC, FACW+
Viola affinis	sand violet	Dicot	Perennial	Forb/herb	FACW
Viola blanda	sweet white violet	Dicot	Perennial	Forb/herb	FACW-, FACW
Viola cucullata	marsh blue violet	Dicot	Perennial	Forb/herb	FACW+, OBL
Viola hirsutula	southern woodland violet	Dicot	Perennial	Forb/herb	
Viola labradorica	alpine violet	Dicot	Perennial	Forb/herb	FAC
Viola lanceolata	bog white violet	Dicot	Perennial	Forb/herb	OBL
Viola pedata	birdfoot violet	Dicot	Perennial	Forb/herb	UPL, FACU
Viola pubescens	downy yellow violet	Dicot	Perennial	Forb/herb	FACU-, FAC-
Viola rostrata	longspur violet	Dicot	Perennial	Forb/herb	FACU
Viola rotundifolia	roundleaf yellow violet	Dicot	Perennial	Forb/herb	FAC, FAC+
Viola sagittata	arrowleaf violet	Dicot	Perennial Annual,	Forb/herb	FAC-, FACW
Viola sororia	common blue violet	Dicot	Perennial	Forb/herb	FAC-, FAC

<i>Viola striata</i>	striped cream violet	Dicot	Perennial	Forb/herb	FACW-, FACW
<i>Viola triloba</i>	three-lobe violet	Dicot	Perennial	Forb/herb	
<i>Vitis aestivalis</i>	summer grape	Dicot	Perennial	Vine	UPL, FAC
<i>Vitis labrusca</i>	fox grape	Dicot	Perennial	Vine	FACU, FAC+
<i>Vitis palmata</i>	catbird grape	Dicot	Perennial	Vine	FACW-, OBL
<i>Vitis riparia</i>	riverbank grape	Dicot	Perennial	Vine	FACU, FACW
<i>Vitis vulpina</i>	frost grape	Dicot	Perennial	Vine	FAC, FACW-
<i>Woodsia ilvensis</i>	rusty woodsia	Fern	Perennial	Forb/herb	
<i>Woodsia obtusa</i>	bluntlobe cliff fern	Fern	Perennial	Forb/herb	
<i>Woodwardia areolata</i>	netted chainfern	Fern	Perennial	Forb/herb	FACW+, OBL
<i>Zannichellia palustris</i>	horned pondweed	Monocot	Perennial	Forb/herb	OBL
<i>Zizania aquatica</i>	annual wildrice	Monocot	Annual	Graminoid	OBL
<i>Zizia aptera</i>	meadow zizia	Dicot	Perennial	Forb/herb	FACU, FACW-
<i>Zizia aurea</i>	golden zizia	Dicot	Perennial	Forb/herb	FAC-, FAC+

B. Forest Cover

Using the NJDEP GIS mapping (NJ-GeoWeb), they only forested land located in the Borough is in the landfill. The landfill contains approximately 35 acres of forested land.

C. Critical Habitat Protection

Threatened and Endangered Species Habitat and Natural Heritage Priority Sites are geographically-identified environmental constraints prioritized for protection by DEP's mandate to protect the ecological integrity and natural resources of New Jersey.

While Threatened and Endangered Species Habitat and Natural Heritage Priority Sites are not specifically regulated as such, the species and sites that are the basis for this information are considered in several DEP regulatory and planning programs - such as the Freshwater Wetlands Program, Water Quality Management Planning, and the Flood Hazard Area Control Act rule.

D. Threatened & Endangered Species Habitat

The New Jersey Endangered Species Conservation Act was passed in 1973 and directed the New Jersey Department of Environmental Protection (DEP) to protect, manage and restore the state's endangered and threatened species. The DEP Endangered and Nongame Species Program (ENSP) has since become the voice for more than 400 species of wildlife in New Jersey, with success stories related to the Bald Eagle, the Peregrine Falcon, the Pine Barrens Tree frog, the Osprey, and others. There are currently 73 endangered and threatened wildlife species in New Jersey. Wildlife professionals within DEP's Endangered and Nongame Species Program oversee research, conservation and protection of rare wildlife species such as the bog turtle, great blue heron, piping plover, bobcat, and other animals that are struggling to survive here in New Jersey.

ENSP has developed the Landscape Project to identify and systemically map the habitat most critical for New Jersey's fish and wildlife populations. This tool is being used to gauge healthy ecosystems and help identify areas appropriate for protection while giving citizens and local government officials valuable scientific information about their municipalities. The Landscape Project ranks habitat patches by the status of the species present, as follows:

Rank 5 is assigned to patches containing one or more occurrences of at least one wildlife species listed as endangered or threatened on the Federal list of endangered and threatened species.

Rank 4 is assigned to patches with one or more occurrences of at least one State endangered species.

Rank 3 is assigned to patches containing one or more occurrences of at least one State threatened species.

Note that the Landscape Project has been updated relatively recently, and released in two versions. Version 2.1, the version that impacts Somerville Borough, was developed using the same protocols as Version 2.0, but updated with more recent species siting data. For additional information on the Landscape Project, see [New Jersey's Landscape Project](#).

There is Rank 4 habitat identified by the Landscape Project as Bald Eagle Foraging along the Raritan River and Peter's Brook in Somerville Borough. The attached *Threatened & Endangered Species Habitat map* shows the extent of habitat in Somerville Borough (including habitat for priority species - Rank 2 - that is discussed below).

E. Priority Species Habitat

Similar to threatened and endangered species, the DEP Endangered Non-Game Species Program also considers "priority species." Priority Species are nongame wildlife that are considered to be species of special concern as determined by a panel of experts. These species warrant special attention because of some evidence of decline, inherent vulnerability to environmental deterioration, or habitat modification that would result in their becoming a Threatened species. This category would also be applied to species that meet the foregoing criteria and for which there is little understanding of their current population status in the state. The Landscape Project ranks habitat patches by the status of the species present, as follows:

Rank 2 is assigned to patches containing one or more occurrences of at least one non-listed State priority species.

There is Rank 2 Forest, Forested Wetlands, Emergent Wetlands, and Grassland habitat identified by the Landscape Project in Somerville Borough. The majority of this habitat is located in and around the Somerville Landfill. Mapping showing Priority Species Habitat is included on the Threatened & Endangered Species Habitat map.

F. Natural Heritage Priority Sites

Through its Natural Heritage Database, the DEP Office of Natural Lands Management (ONLM) identifies critically important areas to conserve New Jersey's biological diversity, with particular emphasis on rare plant species and ecological communities. The database provides detailed information on rare species and ecological communities to planners, developers, and conservation agencies for use in resource management, environmental impact assessment, and both public and private land protection efforts. Using the database, ONLM has identified 343 Natural Heritage Priority Sites (NHPS), representing some of the best remaining habitat for rare species and rare ecological communities in the state. In addition, each NHPS includes a Biodiversity Rank according to its significance for biological diversity using a scale developed by The Nature Conservancy, the network of Natural Heritage Programs and the New Jersey Natural Heritage Program. The global biodiversity significance ranks range from B1 to B5.

There are no Natural Heritage Priority Sites in Somerville Borough

IV. HydroGeology

A. Aquifers

An aquifer is as a water bearing zone that will yield water in a usable quantity to a well or spring (USGS Water Supply Paper 2220). As previously stated, Somerville lies within the Passaic Formation of the Piedmont. The Passaic Formatin (formerly called the New Brunswick Formation) is water bearing so it is also described as an aquifer. In the Brunswick aquifer, which underlies the entire Borough, groundwater is stored and transmitted in fractures. Water is normally freshwater, slightly alkaline, non-corrosive and hard. Calcium bicarbonate type waters dominate in this aquifer (Source: NJDEP Division of Science & Research & NJ GS Aquifers of NJ map).

B. Depth to Water Table

The depth-to-water table indicates the distance from the land surface to the water table in feet, and is indicated on soils descriptions. The depth-to-water table is determined by land surface topography, recharge of aquifer from precipitation, and permeability of the aquifers. When the water table is high (close to the surface), the potential for hydric soils and wetlands exist.

C. Groundwater Recharge Areas

Groundwater recharge areas are those sites where a high volume of precipitation and surface waters infiltrate into the soil and act to resupply surface and ground waters. Protection of these areas from over-development, and addressing stormwater runoff for these areas, directly affects the water quality of both drinking water supplies and water-based habitats.

The New Jersey Geological Survey (NJGS) has developed ground water recharge data sets using several data factors, such as land use patterns, impervious surface amounts, soil types, precipitation, and evaporation rates, among others, to calculate the amount of water each area of the state normally contributes to the underlying aquifers. The data is reported and mapped in several standard categories, in units of inches per year.

For the State Planning process, the original ground water recharge data, calculated for each Watershed Management Area, were converted to a volume-based rating, and then grouped into three classes to simplify further analysis, based on the percent contribution to the total recharge amounts.

Those undeveloped areas contributing the highest one-third of the recharge volume in each Watershed Management Area were selected as high priority for protection.

The final Ground Water Recharge layer used for this analysis includes all undeveloped areas in the state that were identified as contributing the highest one-third of the recharge volume in the appropriate Watershed Management Area.

There is a minimal amount of high volume groundwater recharge areas located within Somerville Borough.

D. Well Head Protection Areas

Areas of land surrounding public community wells, known as Well Head Protection Areas, from which contaminants may move through the ground to be withdrawn in water taken from the well, have been delineated. Protection of the public health, safety and welfare through protection of ground water resources, ensures a supply of safe and healthful drinking water. Well Head Protection Areas (WHPA) are mapped areas calculated around a Public Community Water Supply (PCWS) well in New Jersey that delineates the horizontal extent of ground water captured by a well pumping at a specific rate over a two-, five-, and twelve-year period of time for confined wells. The confined wells have a fifty foot radius delineated around each well that defines the well head protection area, which must be acquired and controlled by the water purveyor in accordance with Safe Drinking Water Regulations (see NJAC 7:10-11.7(b)1).

WHPA 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. WHPA delineation methods are described in "[Guidelines for Delineation of Well Head Protection Areas in New Jersey](#)".

Updates for Public Community Water Supply Well Head Protection Areas are described in [Well Head Delineations Updates List](#). A complete list of individual Public Community Water Supply Well Head Protection Area delineations are described in [Well Head Delineations List](#).

There are no Wellhead Protection Areas in Somerville Borough.

E. Surface Water

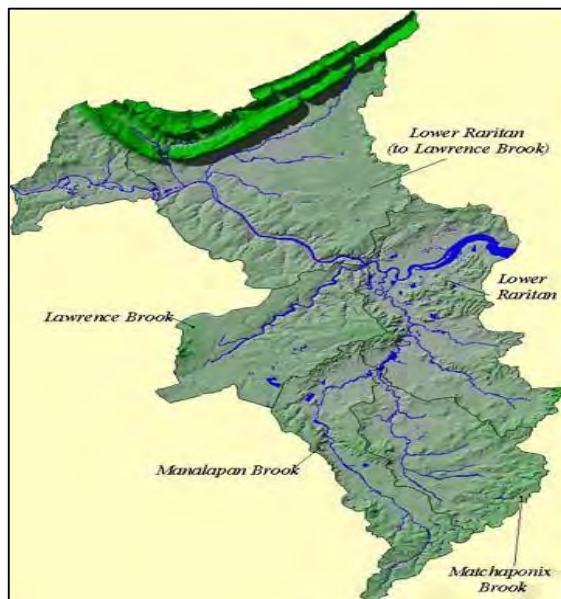
Attached is a map that illustrates major surface water bodies in Somerville. The dominant water feature is the Raritan River, which is fed by several tributaries in the Borough. There are no Category One (C-1) waters mapped in Somerville Borough or in any surrounding municipalities.

F. Watersheds and Sub-Watersheds

A watershed or drainage basin is the land that drains to a water body such as a lake, river, stream or bay. Watersheds are typically separated by ridges, hills or slopes called divides. The divides are areas of high ground where each side drains to a different water body. When the water body is fed by several sources, a watershed can be divided in sub-watersheds.

Watershed Management Areas were created by NJDEP and NJGS in 2000 to manage the State's water resources, and address water pollution and supply issues efficiently. As shown on below Raritan is located in the Lower Raritan, South River and Lawrence Watershed Management Area (WMA-9).

Figure 4: Watershed Management Area 9



The NJDEP describes WMA-9 as extending from the Lower Raritan south to Matchponix Brook, and includes the mainstem of the Raritan River, the South River and Lawrence Brook. Middlesex, Somerset and Monmouth Counties comprise most of the area's political geography. The land use in this watershed is mainly urban/suburban, with industrial and commercial centers throughout.

Somerville Borough is covered by three sub-watersheds; the Raritan River North Branch, Peters and Ross Brooks.

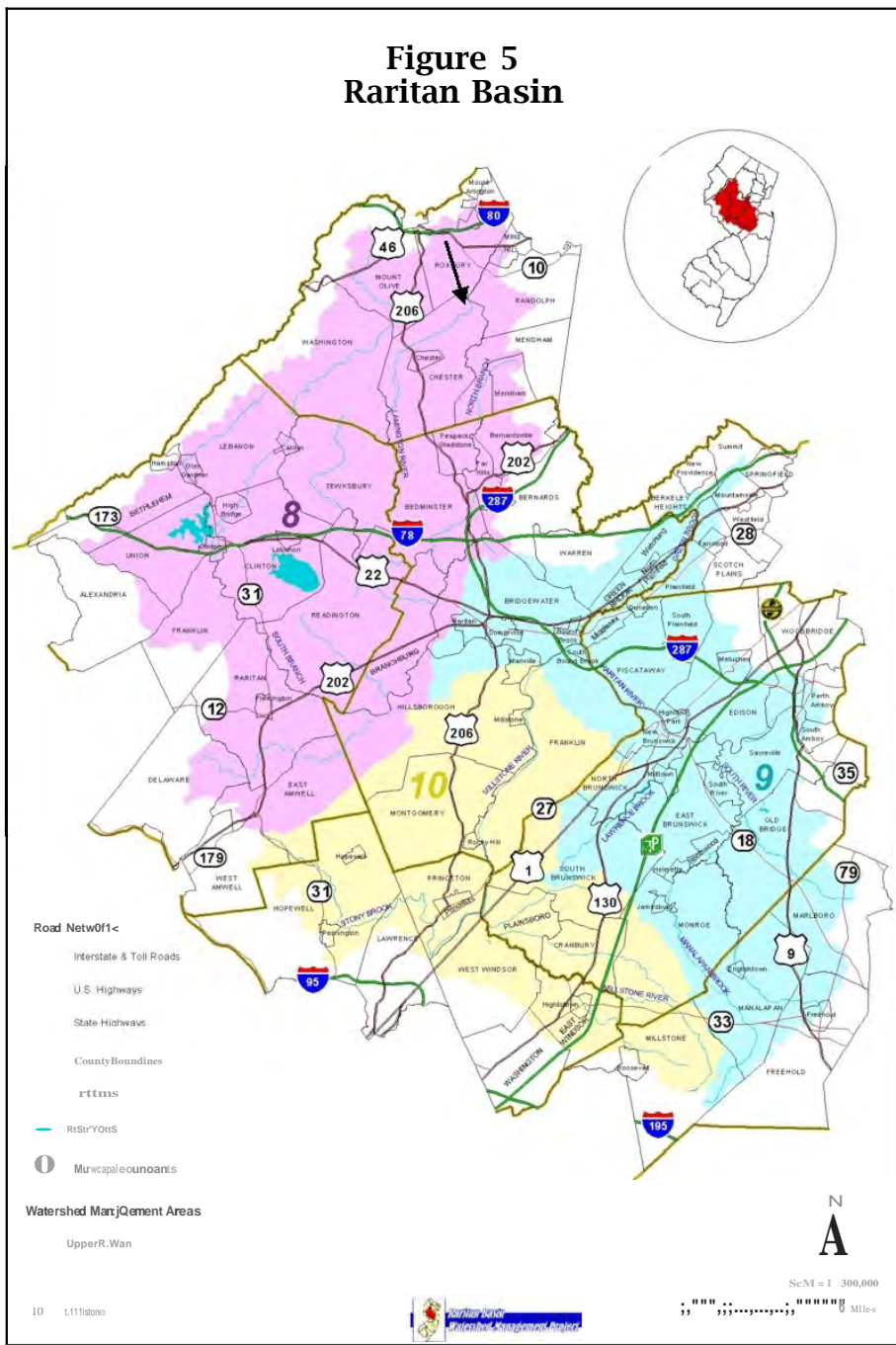
Watershed Management Areas 9 are part of the larger Raritan Basin. The Raritan Basin is the largest river basin located entirely within the State of NJ encompassing 1,100 square miles of land that ultimately drain to the Raritan Bay through the Raritan River. The Raritan Basin is bounded by the Passic River Basin to the north, by the Delaware River Basin to the west, by the Atlantic Coastal Basin to the South, and by the Hudson River Estuary to the northeast. The Basin is home to over 1 million residents and thousands of species of plants and animals. Critical wildlife habitats include grasslands, forests and wetlands. (*See Raritan Basin - Portrait of a Watershed, NJ Water Supply Authority, August 2002.*)

To better manage the resources of the basin, The Raritan Basin Watershed Management Plan was developed by The NJ Water Supply Authority under a Memorandum of Agreement with the NJ Department of Environmental Protection. The major changes contemplated in the Raritan River Basin include:

- Protection and preservation of lands that play a critical role in the protection of Raritan water basin resources, including headwaters streams;
- Maintenance and restoration of ground water recharge to ensure sufficient supplies for dry weather stream flow and public use, and to minimize stormwater runoff;
- Improved control of stormwater through watershed-based management plans, improved site design techniques and attention to the impacts of stormwater on stream stability and flooding;
- Management of water supply resources on a sub watershed, watershed and regional basis so that sustainable levels of resource use are not exceeded, ensuring adequate water for both human and ecosystem uses.
- Restoration of streams and riparian areas that have been physically damaged by harmful land use and stormwater management practices, and protection of high-quality streams and riparian areas;

- Restoration and protection of ground and surface waters that are currently or prospectively impaired by excessive pollutant loads, through a combination of regulatory and non-regulatory programs affecting both point and nonpoint sources of pollutants;
- Understanding by residents, landowners, businesses and government decision-makers of the basic aspects of water resources and critical watershed management issues in the Raritan River Basin and tools to resolve them, so that they are moved to help solve these issues.

Figure 5 Raritan Basin



G. Wetlands

Wetlands are identified by three positive indicators: hydric soils, hydric vegetation and hydrology. Under the New Jersey Freshwater Wetlands Protection Act, activities in wetlands and in buffer or transition areas are regulated and administered by the New Jersey Department of Environmental Protection (NJDEP). As indicated on the attached map, wetlands in Somerville can be found primarily along the Raritan River and several creeks.

H. Floodplains

The floodplain map delineated for the Peters and Ross Brooks and Raritan River by NJDEP is depicted on the attached map. The area most impacted by the 100 year floodplain is in the immediate vicinity of the Ross and Peters Brooks and in the southern portions of the municipality near the Raritan River.

I. Vernal Pools

The NJDEP Division of Fish and Wildlife defines vernal pools as “confined wetland depressions, either natural or man-made, that hold water for at least two consecutive months out of the year and are devoid of breeding fish populations.” In New Jersey, rural portions of the Skylands, Piedmont, and Coastal Plain landscapes are home to the majority of our vernal pools. These unique ecosystems provide habitat to many species of amphibians, insects, reptiles, plants, and other wildlife.

Vernal pools come in an array of forms: isolated depressions within upland forests, seasonally flooded meadows, floodplain swamps, abandoned gravel pits or quarries, and even derelict swimming pools. However, no matter what the structure or genesis of the pool is, all vernal pools either dry out completely or draw down to very shallow levels unsuitable for sustaining fish. Fish are highly predatory on amphibian eggs and larvae. Over the course of evolution, several species of salamanders and frogs exploited these fish-less water bodies. Today, these species exhibit "hard-wired" instincts and behaviors that are geared exclusively towards fish-free vernal habitats.

Amphibians that are dependent upon vernal pools are known as "obligate vernal pool breeders." In New Jersey there are seven species - two frogs and five salamanders - that fit this category. Another 14 of New Jersey's amphibians also use vernal pools for breeding, but unlike the 'obligate' species, these species can successfully reproduce in habitats that contain fish. These species are known as "facultative vernal pool breeders." There are no listed vernal pools in Somerville.

For more information on vernal pools and vernal pool protection, visit NJDEP Division of Fish and Wildlife New Jerseys Vernal Pools webpage: <http://www.njfishandwildlife.com/ensp/vernalpool.htm>.

V. Land Use

A. Existing Land Use

A map illustrating the generalized land use pattern in Somerville is attached. As seen in Table V-1, residential use is the largest single land use category at 64% of the parcel acreage. This is followed by commercial (18%) which is followed by industrial (11.5%). The State does own three (3) lots that are associated with the Wallace House, 28 Washington Place and Old Dutch Parsonage, 65 Washington Place. Given the small amount of State owned land it is not included in the table below.

**Table V-1
Generalized Land Use**

Existing Land Use Category	Parcel Acres	Percentage
Residential	967.22	64
Commercial	269.67	18
Industrial	173.21	11.5
Hospital	18.60	1.2
Garden Apartments	14.60	.96
Senior Citizen	3.66	.24
County Government	63.18	4.2
Total	1,510.14	

B. Zoning

As indicated on the attached map, there are 16 districts and four (4) redevelopment zones. The residential zoning district with the highest density, R-3 is located adjacent to the NJ Transit rail road, to the north of the rail road tracks. The residential districts consist of the R-1, R-2, R-3 and PO-R. Generally speaking, the lots are larger in the PO-R followed by the R-1, then R-2, and R-3. The PO-R buffers the B-1 & B-2 zone districts and allows for professional uses (i.e. accounting, law, engineering offices, etc.). The Borough is bordered on three (3) sides by highways and the properties adjoining the highways are primarily either the B-5 or B-6 zone districts (a portion of property frontion on Route 206 is zoned I-1). Technically, the entire B-6 zone district is within the the Station Avenue Landfill Redevelopment Area.

At the core of the Borough is Main Street which is surrounded by the B-1 and B-2 zone districts. The PO-R and R-2 zone districts surround the eastern portion of Main Street. The zoning districts are as follows:

**Table V-2
Somerville Zoning Districts**

Residential Zoning Districts	
R-1	Single Family Residential District
R-2	Single Family Residential District
R-3	Single Family Residential District
G	Garden Apartment District
SC	Senior Citizens Housing District
PO-R	Professional Office -Residential District
Non-Residential Zoning Districts	
B-1	Central Business District
B-2	Central Business District
B-3	Business Service District
B-4	Neighborhood Business - Residential District
B-5	Highway Business District
B-6	Shopping Central District
I-1	Industrial District
I-2	Industrial District
H	Hospital District
CG	County Government District
Redevelopment Areas	
West Main Street	Portion of B-1 and B-2 Zone Districts
Station Areas & Landfill	B-6 Zone District
Kirby Avenue	I-2 Zone District (eastern zone) and portion of R-3
ECBD	Portion of B-1, B-2, B-3, PO-R and R-3 Zone Districts
Gaston Avenue	Portion of B-4 Zone District

C. Parks and Open Space

There are approximately 99.9 acres of open space and recreational land in the Borough that is owned by either the Borough or Board of Education. The open space parcels are stated below. There is no Federal owned open space or recreation facilities in Somerville. There is State owned open space associated with the old Dutch Parsonage, 65 Washington Place (Block 125, Lots 10, 11, 12 & 13).

Name	Block	Lot	Acres
Elsworth Van Fleet Gardes	77	14	3.26
Peter's Brook Greenway	75	5	5.94
Carol Pager-Exchange Field	108	14	7.79
John P. Long Park/ Brookside Open Space	143	3	7.0
Open Space	154	1.01	0.53
Open Space	154	2	0.33
Claude Walck Park	92	22	13.80
Van derveer Field*	83.01	1	31
Kuglar Park	145	1	0.83
Flockhart Park	144	1	0.50
Ken Cornell Wheel Park & Firehouse Field	58	1	5.18
Ken Cornell Wheel Park & Firehouse Field	58	22	1.58
Open Space	123.01	1	6
Mastogen Drive Open Space	100	9	0.55
Peters Brook Greenway	75	5	5.94
Children's Park	144	9	0.14
Michael Lepp Park	67	20	5.34
Open Space	52	39	0.19
Open Space	68	9.01	0.01
WWI Memorial Site & Skate Park	71	16	3.99

- Note # - 1. Van derveer Park is owned by the Somerville Board of Education and the lot includes the school building and parking lot. The size of the field is estimated.
2. The above table does not include the Borough owned land that is part of the landfill redevelopment area or land that is not located within the Borough (i.e. Clark's Woods & Arthur Chambers Fields).
3. A mini park (0.25 acres is located at the Baker and Taylor site (block 1, lot 4.01) but since it does not have a separate lot and block it is not stated.

Somerset County owns approximately 31.15 acres of open space which is primarily located on the west of Route 206. The County does own a 3.35 acre parcel adjacent to the Raritan river (the parcel is located east of Route 206).

**Table V-3
Existing Parks and Recreation Summary
Somerville Borough**

Jurisdiction	Approximate Acreage	% of Total
Federal	-0-	-0-
State	3	2%
Somerset County	31.1	24%
Municipal	68.9	51%
School Park/Open Space	31	23%
Total	134	100%

Rain, flower gardens and a tree arbor are located on the Borough’s open space. The arbor was founded in 2012, which is located off of Culver Street, currently contains over 150 trees that are transported annually into the local parks. The arbor is maintained by the Girl Scouts.

The rain gardens are located off of Green Street, adjacent to the Carol Pager Park and were built by the Leadership Somerset Class of 2014. Additional rain gardens may be built on public lands. The Rutgers Cooperative Extension (RCE) Water Resources Program has partnered with the New Jersey Water Supply Authority (NJWSA) Watershed Protection Program to offer rebates to homeowners that build rain gardens in Somerville. There is also a public flower garden, known as the Van Fleet Gardens, which is located on parkland adjacent to the Peters Brook, east of Noth Bridge Street.

VI. Infrastructure

A. Transportation

Somerville Borough is situated at or near the convergence of several highways including Interstate 287, US 22, and 206 and NJ 28. Route 202 is on the western Boarder and provides access to I-287. Route 28 runs through the center of the Borough and is the Borough's Main Street. The Somerville Train station on NJ Transit's Raritan Valley Line is located off of South Bridge Street and the downtown was designated a Transit Village by NJDOT. The Raritan Valley Line provides direct commuter access to Penn Station in New York during off peak hours. During peak hours, commuters must change trains in Newark to continue to NYC. Buses carry passengers to several points within New Jersey and north to New York City. NJ Transit provides bus line 884, from Somerville to Clinton as part of their "Wheels: Suburban Transportation Service" and "Ridewise" of Raritan Valley Transportation Management Association.

There are two highway corridor initiatives that will impact on Somerville, which is as follows;

The Route 22 Sustainable Corridor Improvements will include long-term improvements between Route 202/206 and Chimney Rock Road which will address high accident rates as well as eliminate congestion in this area. This project, sponsored by Somerset County, is expected to be completed in the next year or two.

The Route 202 Corridor Assessment and Multi-Modal Mobility Plan is intended to advance a series of improvements on Route 202 between the Flemington and Somerville traffic circles: a corridor that is one of the primary travel corridors linking Somerset and Hunterdon Counties. The study was completed and improvements will be implemented in the near future.

B. Water and Sewer Systems

The public water system in Somerville is owned and maintained by NJ American Water. The sanitary sewer conveyance system is owned and maintained by the Borough and processed at the Somerset Raritan Valley Sewerage Authority (SRVSA) wastewater treatment plant.

Appendix

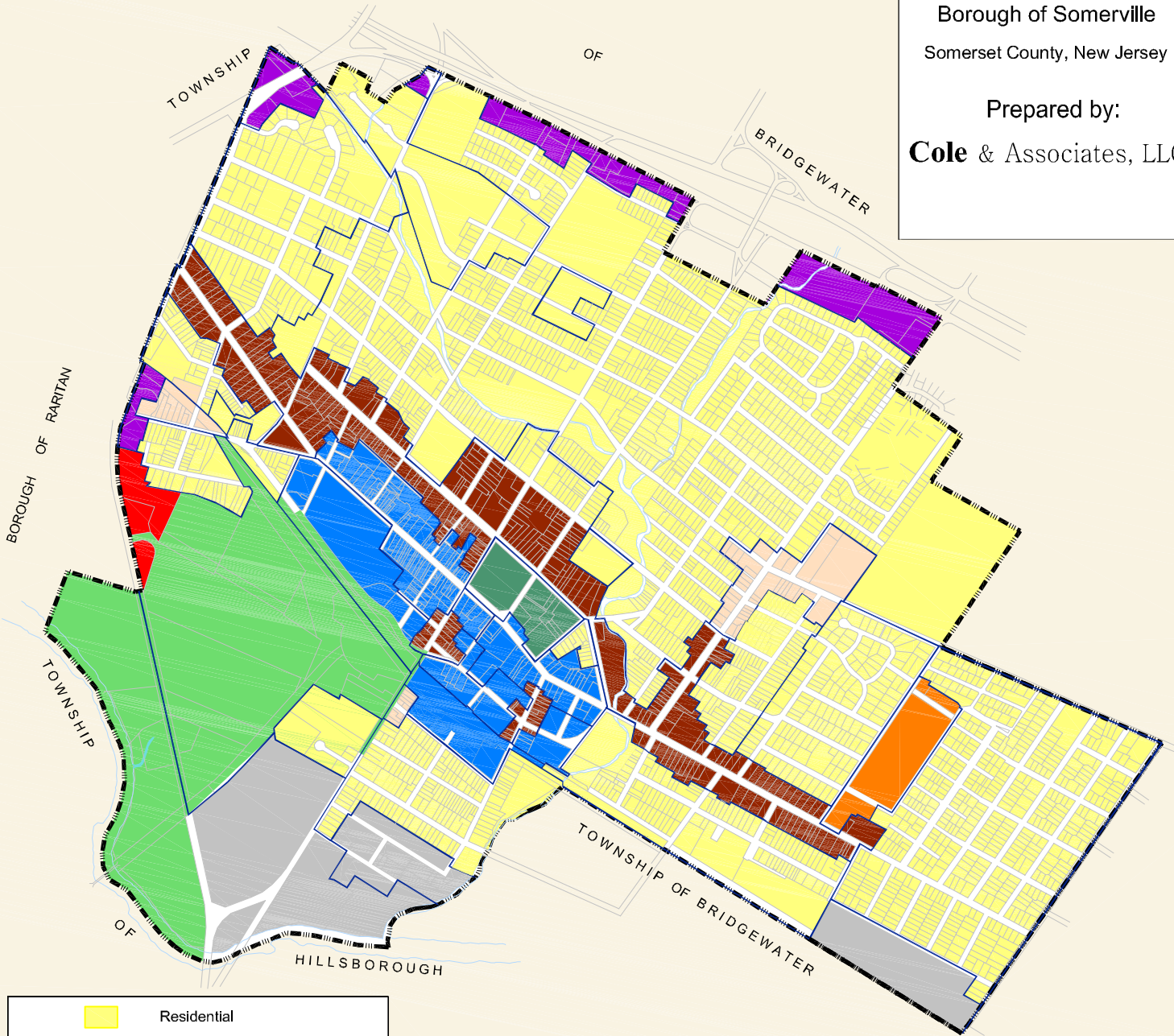
Maps

EXISTING LAND USE

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



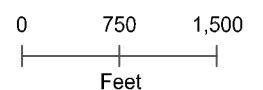
- Residential
- Commercial
- Industrial
- Office - Residential
- Business
- Government
- Highway
- Hospital
- Business - Residential
- Landfill Redevelopment Area

Legend

- Somerville Train Station
- Municipal Boundary
- Tax Parcel
- Railroad
- Stream
- Water Body

Data Sources:

Municipal Boundary - NJDEP, 2008
Tax Parcel - Somerset County, 2007
NJ GEOWEB



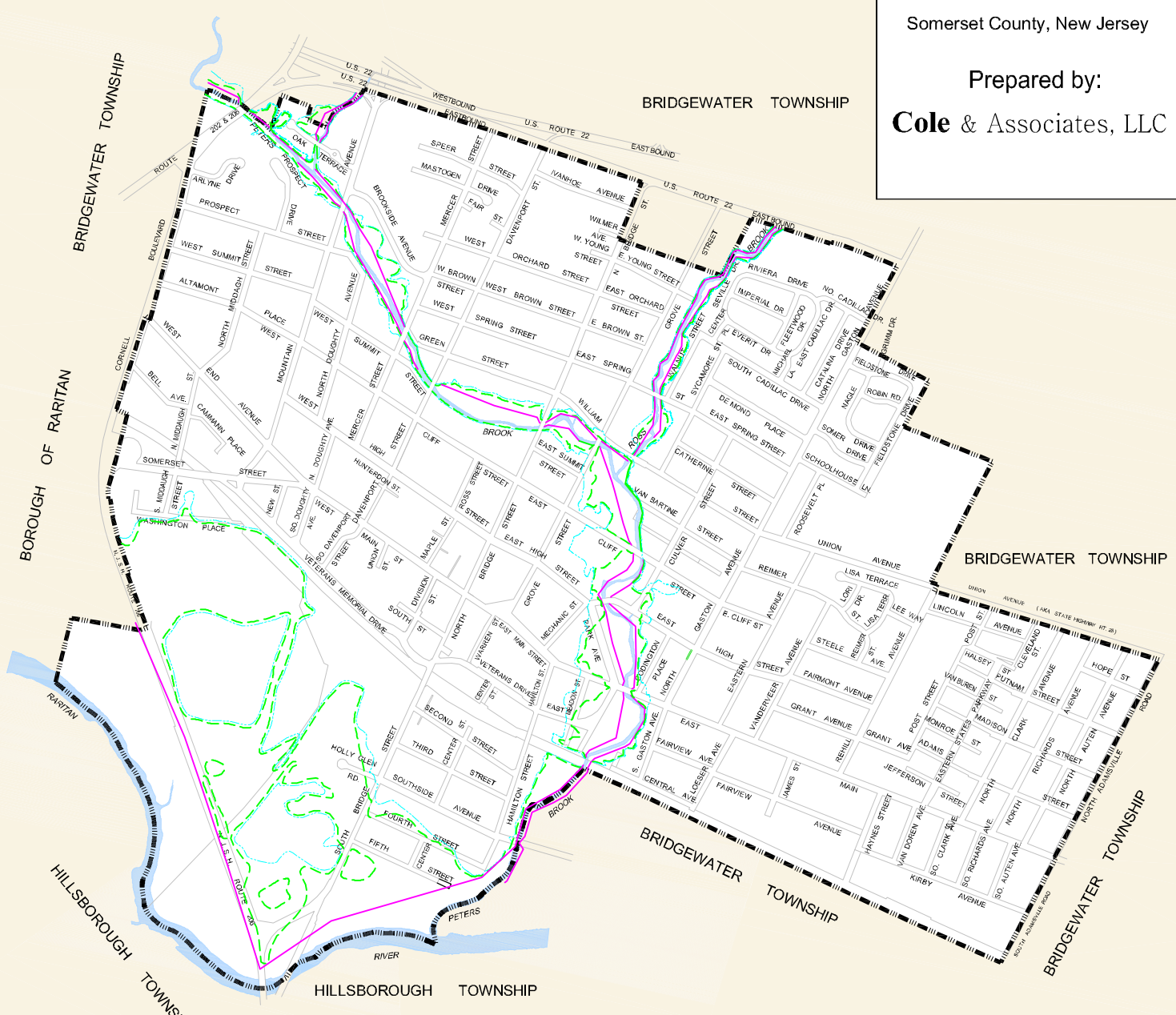
1 inch = 1,500 feet










FLOOD MAP

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



Legend		Data Sources:	
	Somerville Train Station	Municipal Boundary - NJDEP, 2008	
	Municipal Boundary	Tax Parcel - Somerset County, 2007	
	Tax Parcel	NJ GEOWEB	
	Railroad		
	Stream		
	Water Body		
	Flood Hazard Area Limit		
	100 year Flood Plain		
	Floodway Limit		
		0 750 1,500	
		Feet	
		1 inch = 1,500 feet	

FORESTED LAND

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



Legend

- Somerville Train Station
- Municipal Boundary
- Tax Parcel
- Railroad
- Stream
- Water Body
- Forested Land

Data Sources:

- Municipal Boundary - NJDEP, 2008
- Tax Parcel - Somerset County, 2007
- NJ GEOWEB

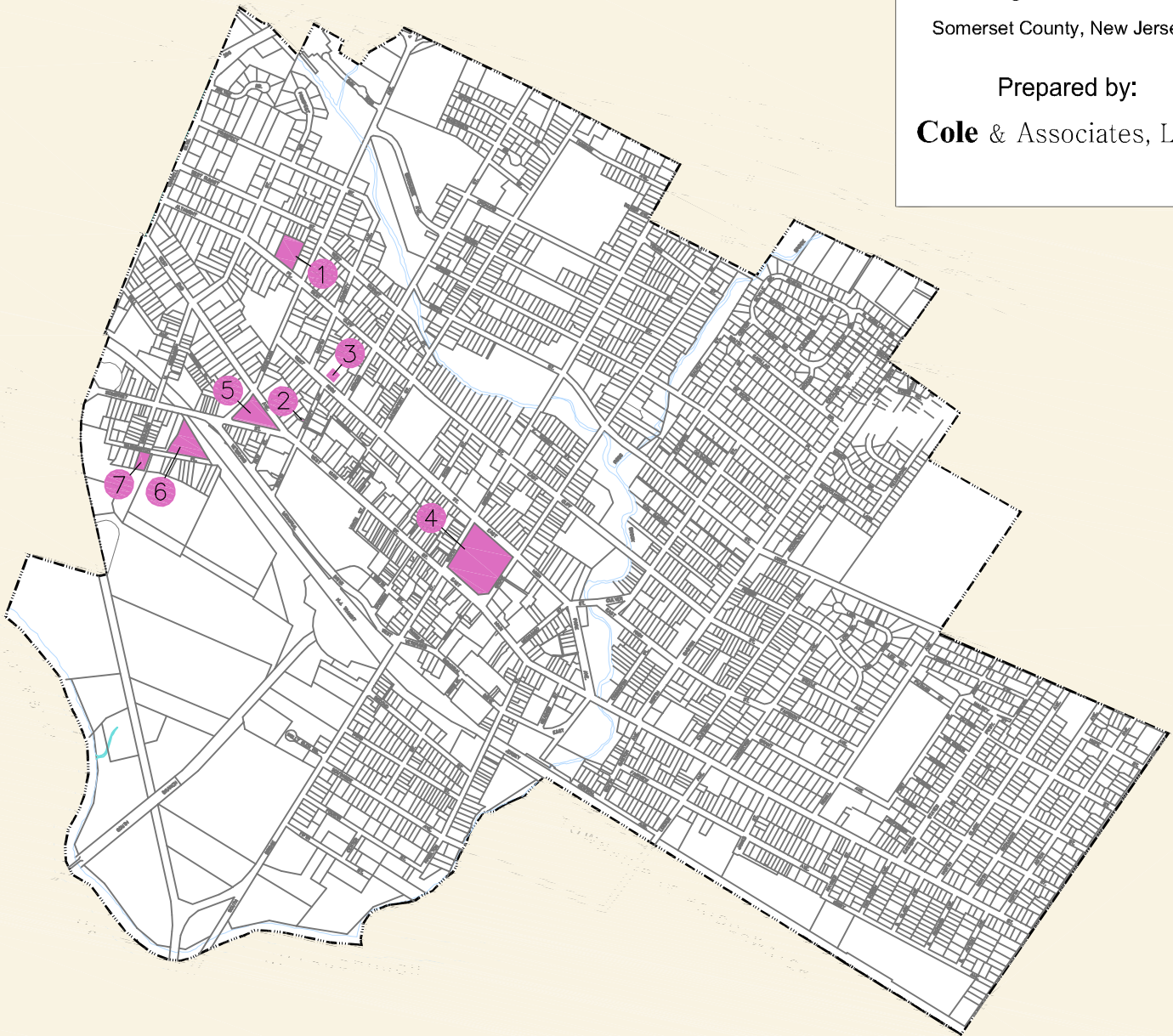
0 750 1,500
Feet
1 inch = 1,500 feet

HISTORIC SITES

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



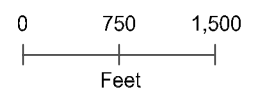
1	J. Harper Smith Mansion	228 Altamont Place
2	W. End Hose Co Firehouse	15 N. Doughty Street
3	St. John's Church Cplx	154-158 w. High St.
4	Somerset Court House Green	Main St., Grove & N. Bridge Streets
5	Somerville Borough Hall	25 West End Avenue
6	Wallace House	28 Washington Place
7	Old Dutch Parsonage	65 Washington Place

Legend

-  Somerville Train Station
-  Municipal Boundary
-  Tax Parcel
-  Railroad
-  Stream
-  Water Body
-  Zoning Boundary

Data Sources:

Municipal Boundary - NJDEP, 2008
Tax Parcel - Somerset County, 2007
NJ GEOWEB



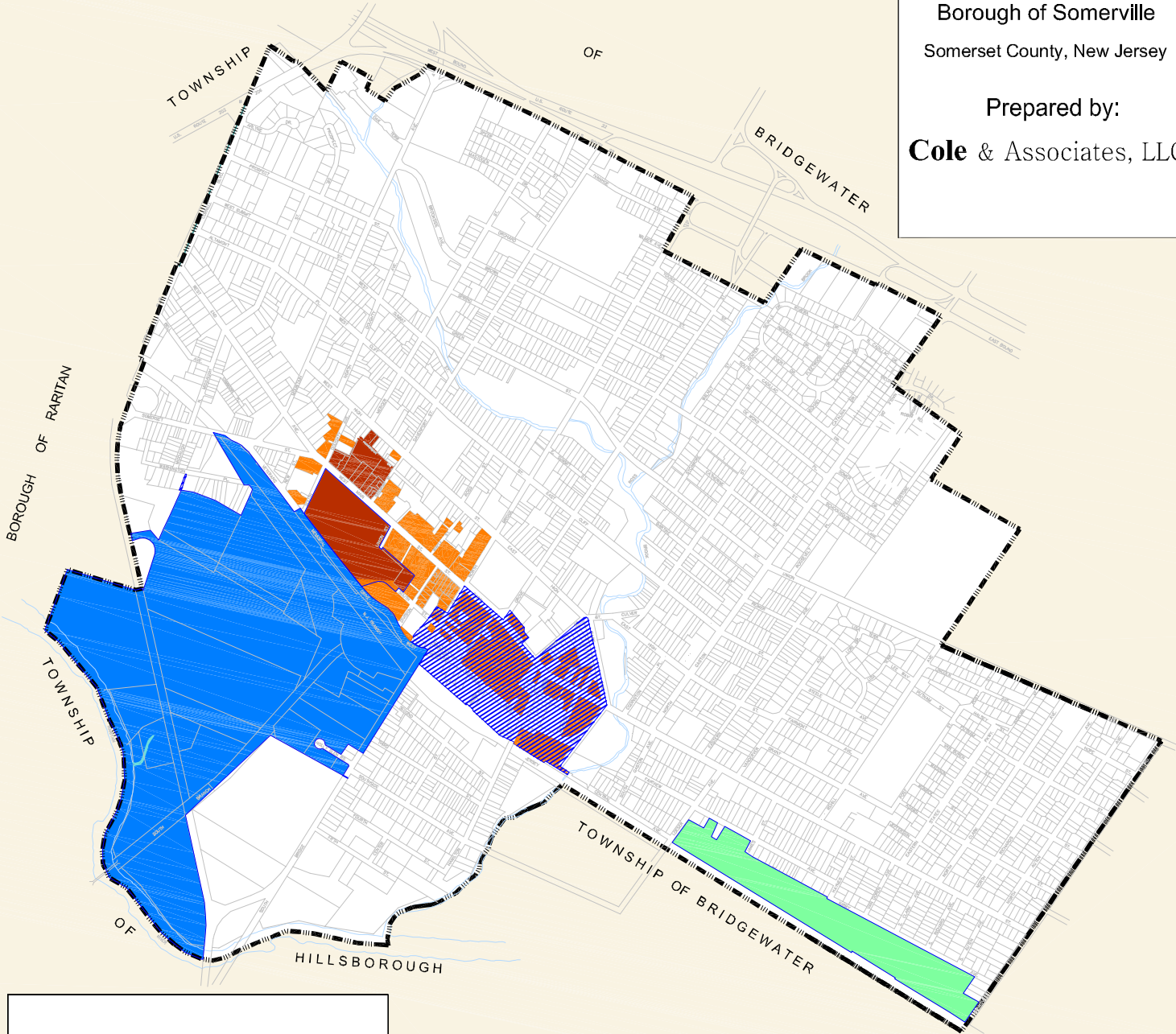
1 inch = 1,500 feet

REDEVELOPMENT AREA

NATURAL RESOURCE INVENTORY







Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



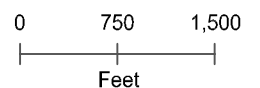
-  SPECIAL IMPROVEMENT DISTRICT
-  WEST MAIN STREET REDEVELOPMENT AREA
-  EASTERN CENTRAL BUSINESS DISTRICT (ECBD)
-  KIRBY AVE. REDEVELOPMENT AREA
-  LANDFILL REDEVELOPMENT AREA

Legend

-  Somerville Train Station
-  Municipal Boundary
-  Tax Parcel
-  Railroad
-  Stream
-  Water Body

Data Sources:

Municipal Boundary - NJDEP, 2008
Tax Parcel - Somerset County, 2007
NJ GEOWEB



1 inch = 1,500 feet

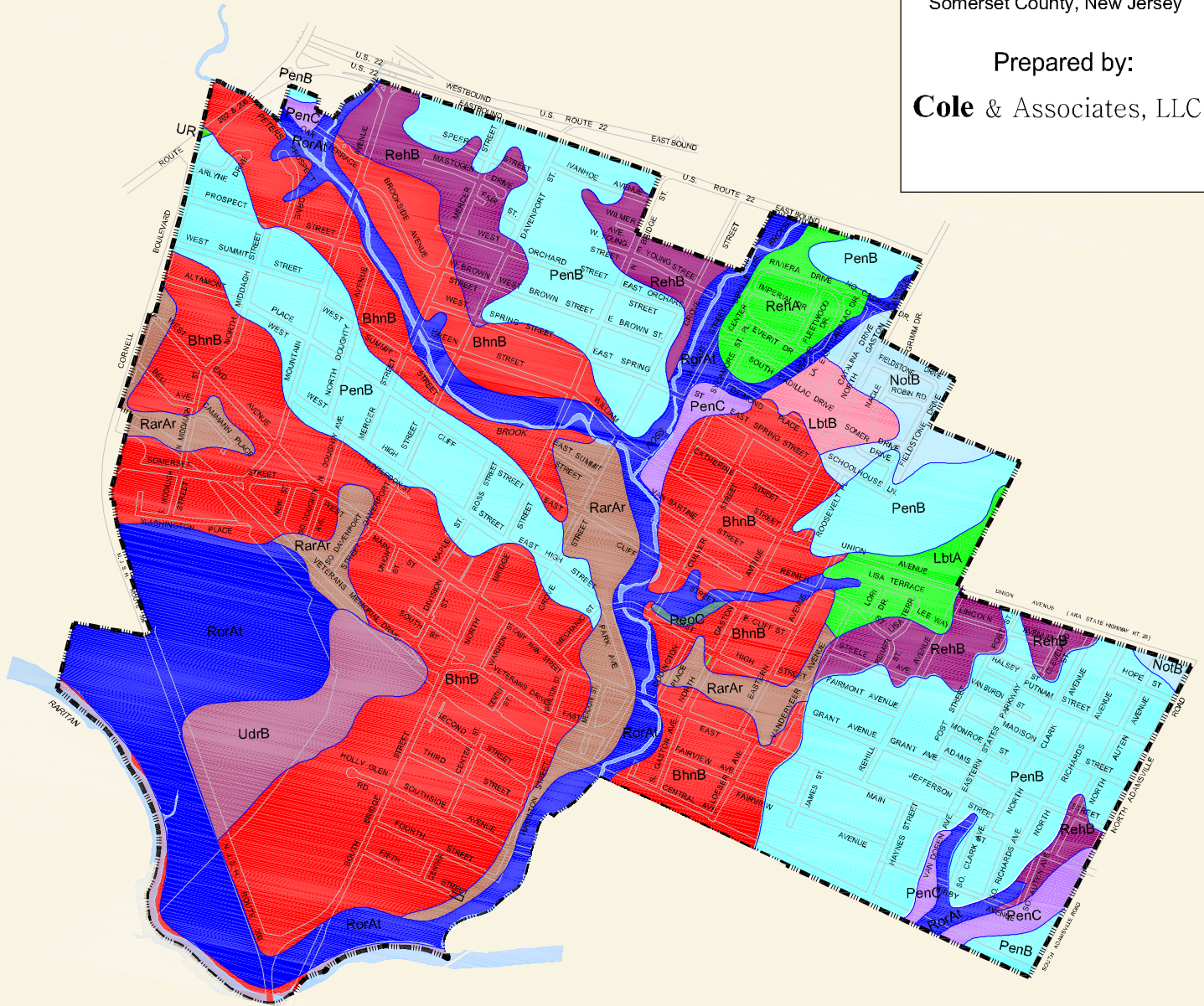
SOIL MAP

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:

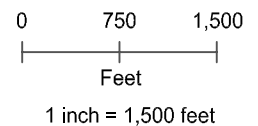
Cole & Associates, LLC



- BhnB** Birdsboro silt loam, 2% to 6% slopes
- RorAt** Rowland silt loam, 0 to 2% slopes, frequently flooded
- RarAr** Raritan silt loam, 0 to 3% slopes, rarely flooded
- LbtA** Lansdowne silt loam, 0 to 2% slopes
- PenC** Penn channery silt loam, 6% to 12% slopes
- PenB** Penn silt loam, 2% to 6% slopes
- NoIB** Norton loam, 2% to 6% slopes
- UdrB** Udorthents, refuse substratum, 0% to 8% slopes
- RehB** Reaville silt loam, 2% to 6% slopes
- LbtB** Lansdowne silt loam, 2% to 6% slopes

- ### Legend
- Somerville Train Station
 - Municipal Boundary
 - Tax Parcel
 - Railroad
 - Stream
 - Water Body

Data Sources:
Municipal Boundary - NJDEP, 2008
Tax Parcel - Somerset County, 2007
NJ GEOWEB











SUB WATERSHEDS (HUC 14)

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



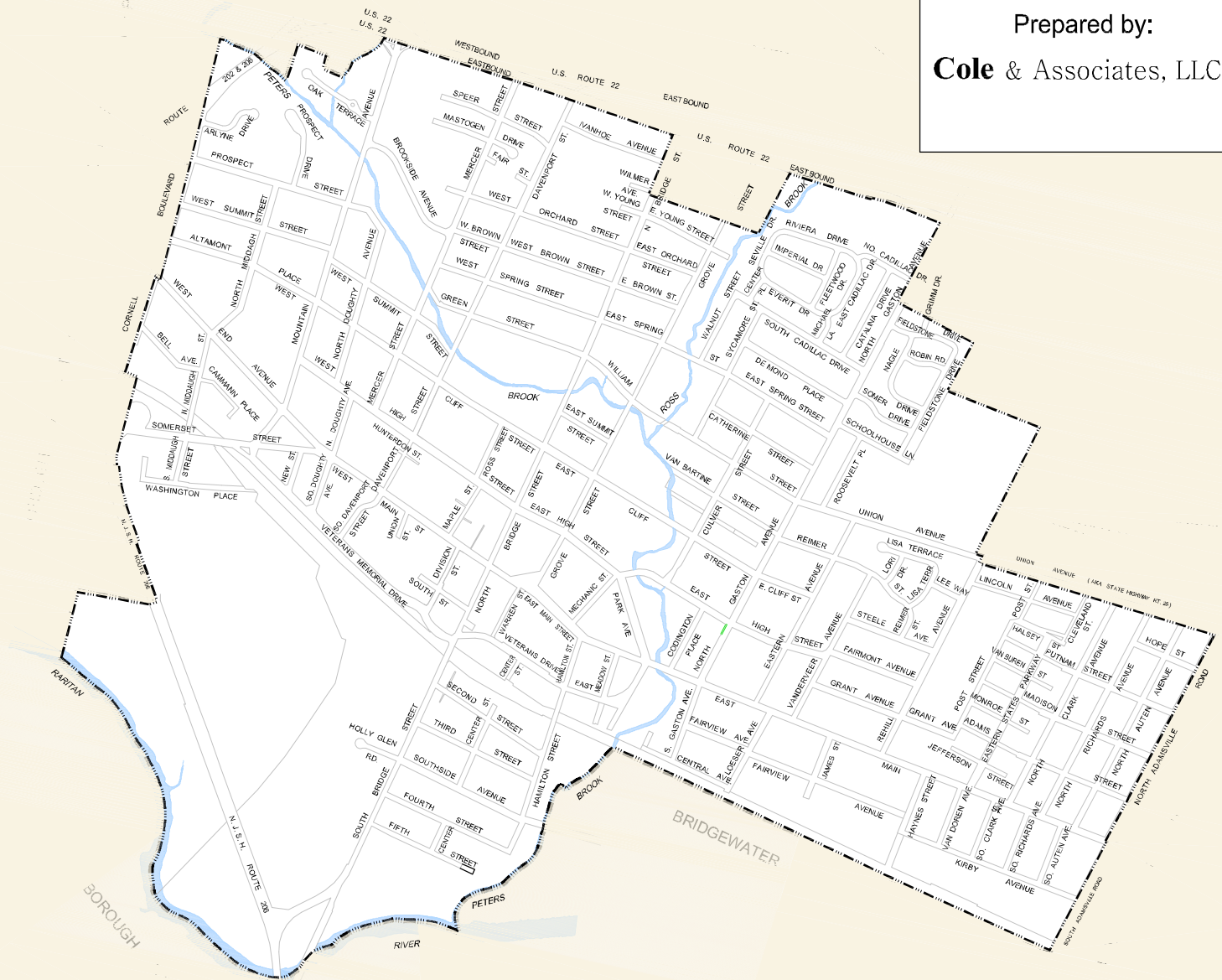
Legend		Data Sources:	
	Somerville Train Station	Municipal Boundary - NJDEP, 2008	
	Municipal Boundary	Tax Parcel - Somerset County, 2007	
	Tax Parcel	NJ GEOWEB	
	Railroad		
	Stream		
	Water Body		
	Watershed Management Area		
	Sub-Watershed		
		0 750 1,500	
		----- ----- -----	
		Feet	
		1 inch = 1,500 feet	

SURFACE WATER BODIES

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



Data Sources:
Municipal Boundary - NJDEP, 2008
Tax Parcel - Somerset County, 2007
NJ GEOWEB

Legend

- Somerville Train Station
- Municipal Boundary
- Tax Parcel
- Railroad
- Stream
- Water Body

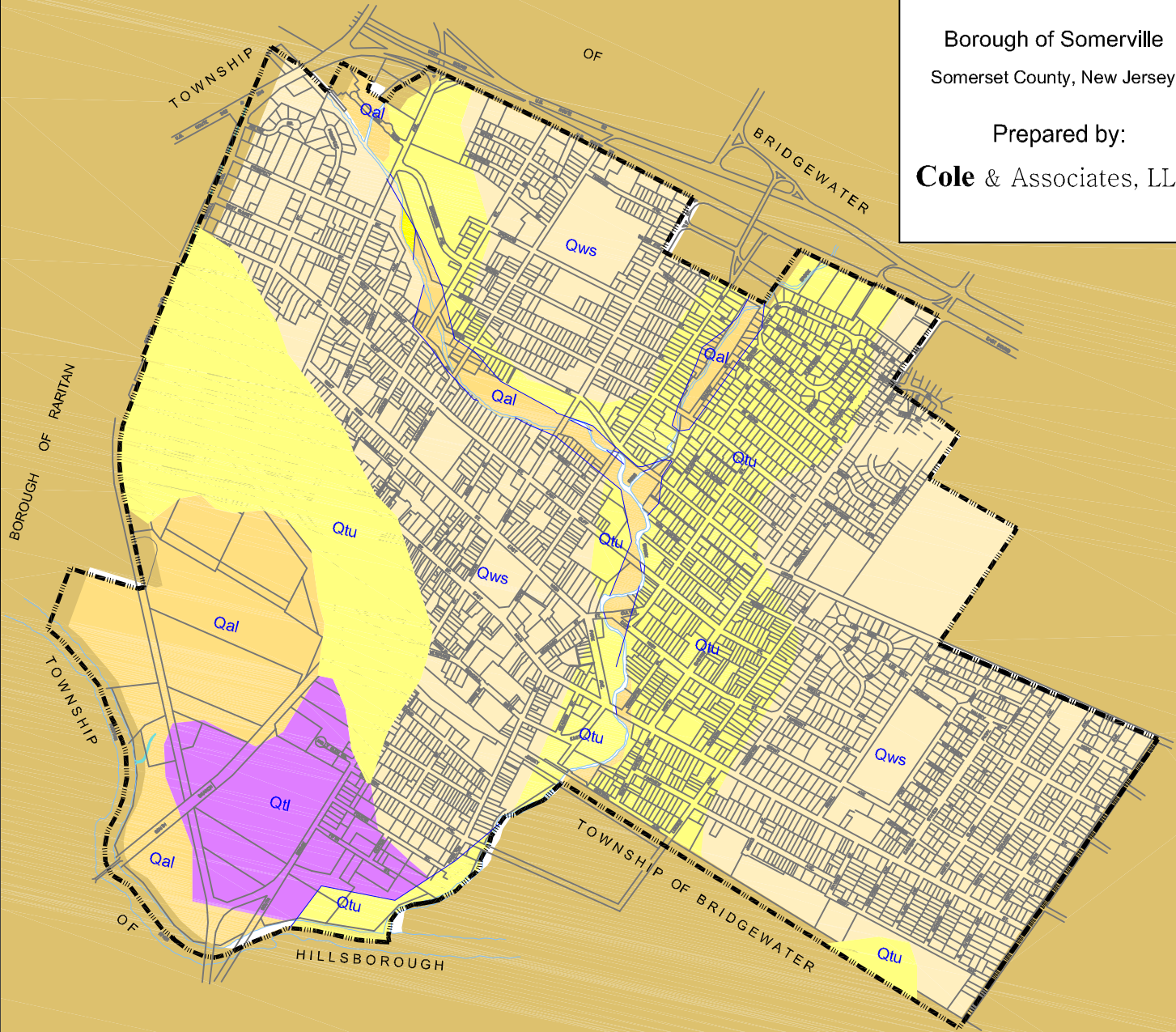
0 750 1,500
 —————
 Feet
 1 inch = 1,500 feet

SURFICIAL GEOLOGY MAP

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



Qal - ALLUVIUM
Qtl - LOWER STREAM TERRACE DEPOSITS
Qtu - UPPER STREAM TERRACE DEPOSITS
Qws - WEATHERED SCHIST AND GNEISS

Legend		Data Sources:
	Somerville Train Station	Municipal Boundary - NJDEP, 2008
	Municipal Boundary	Tax Parcel - Somerset County, 2007
	Tax Parcel	NJ GEOWEB
	Railroad	
	Stream	
	Water Body	
	Zoning Boundary	

0 750 1,500

 Feet
 1 inch = 1,500 feet

WETLANDS

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



Legend

- Somerville Train Station
- Municipal Boundary
- Tax Parcel
- Railroad
- Stream
- Water Body
- Wetland

Data Sources:
Municipal Boundary - NJDEP, 2008
Tax Parcel - Somerset County, 2007
NJ GEOWEB

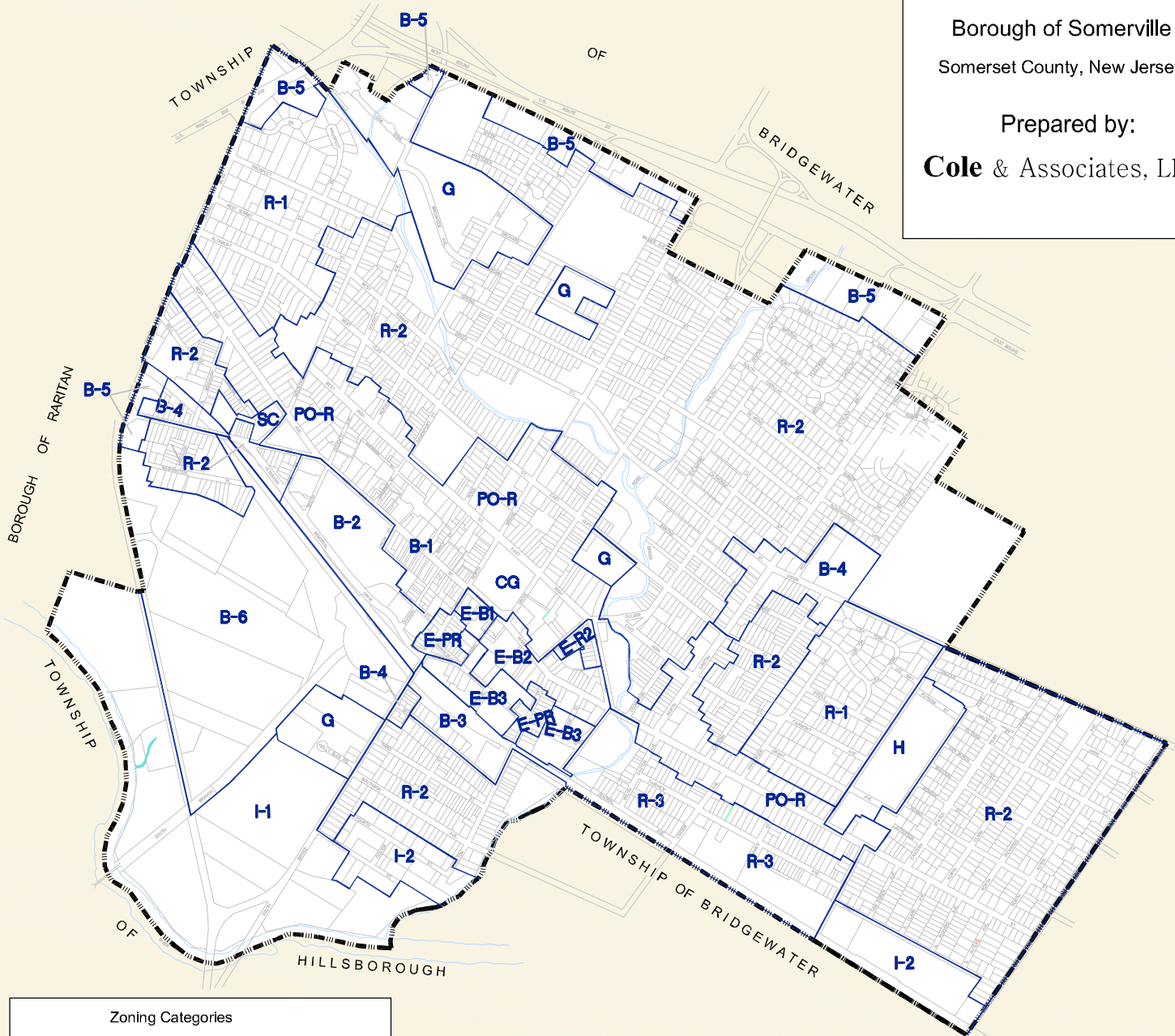
0 750 1,500
Feet
1 inch = 1,500 feet

ZONING

NATURAL RESOURCE INVENTORY

Borough of Somerville
Somerset County, New Jersey

Prepared by:
Cole & Associates, LLC



Zoning Categories

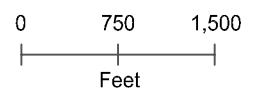
- R-1 Single Family Residence District
- R-2 Single Family Residence District
- R-3 Single Family Residence District
- G Garden Apartment District
- SC Senior Citizens Housing District
- PO-R Professional Office-Residential District
- CG County Government District
- B-1 Central Business District
- B-2 Central Business District
- B-3 Business Service District
- B-4 Neighborhood Business-Residential District
- B-5 Highway Business District
- B-6 Shopping Central District
- I-1 Industrial District
- I-2 Industrial District
- H Hospital District

Legend

-  Somerville Train Station
-  Municipal Boundary
-  Tax Parcel
-  Railroad
-  Stream
-  Water Body
-  Zoning Boundary

Data Sources:

Municipal Boundary - NJDEP, 2008
Tax Parcel - Somerset County, 2007
NJ GEOWEB



1 inch = 1,500 feet