

Town of Cornwall and Village of Cornwall-on-Hudson  
Natural Heritage Project:  
Open Space Inventory



November 2019

This project has been funded in part by a grant from the New York State Environmental Protection Fund through the New York State Department of Environmental Conservation Hudson River Estuary Program.

**TOWN OF CORNWALL AND VILLAGE OF CORNWALL-ON-HUDSON**

**NATURAL HERITAGE PROJECT:  
OPEN SPACE INVENTORY**

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Department of  
Environmental  
Conservation

Hudson River  
Estuary Program



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Project Partners and Consultants

Hudson Highlands Land Trust  
Orange County Land Trust  
Behan Planning and Design  
Strong Outcomes, LLC

## Introduction

In October 2017, the Hudson Highlands Land Trust was awarded a grant from New York's Department of Environmental Conservation (DEC) Hudson River Estuary Program to work in partnership with Orange County Land Trust to assist the Towns of Cornwall and Blooming Grove and the Village of Cornwall-on-Hudson in preparing open space inventories (OSI). Behan Planning and Design was retained to provide planning and mapping assistance to the Town of Cornwall Conservation Advisory Council.

This is a time of increasing development pressure and demands on water resources across the Hudson Highlands region. An OSI can be a valuable tool for guiding a desirable balance between development and conservation. These municipal OSIs document the areas that are most important to residents for conservation and protection of their water resources, farmland, scenic beauty, and recreational opportunities. While this report addresses the Town of Cornwall and the Village of Cornwall-on-Hudson only, these resources do not fall neatly along town boundaries, and a similar report has been prepared for the neighboring Town of Blooming Grove. The Towns of Cornwall and Blooming Grove (which includes the Villages of Washingtonville and South Blooming Grove) and the Village of Cornwall-on-Hudson share many natural treasures, including the Moodna Creek watershed, and Schunnemunk Mountain and the surrounding area.

Preparation of the OSI for the Town of Cornwall and the Village of Cornwall-on-Hudson would not have been possible without the dedicated work of the Town of Cornwall Conservation Advisory Council (CAC). New York State General Municipal Law §239-x provides for the creation of a CAC by any town, city or village "...to advise in the development, management and protection of its natural resources." General Municipal Law §239-y authorizes CACs to complete an OSI prioritizing open areas in a municipality for preservation based on natural, scenic, and cultural values. (Haeckel, I. and L. Heady. 2014. *Creating a Natural Resources Inventory: A Guide for Communities in the Hudson River Estuary Watershed*. Department of Natural Resources, Cornell University, and New York State Department of Environmental Conservation, Hudson River Estuary Program. pp. 6, 55-56.) The OSI map included in this report reflects this inventory as prepared for the Town of Cornwall and the Village of Cornwall-on-Hudson.

Before priorities can be determined, a basic inventory of natural resources is needed. (Haeckel, I. and L. Heady. 2014. p. 6.) At the onset of this project the Cornwall CAC was in the process of producing a Natural Resource Inventory (NRI) with technical support provided by the DEC Hudson River Estuary Program and Orange County Planning/Orange County Water Authority. The resulting NRI maps and data formed the basis for this OSI project (a sampling of the NRI maps is included in Appendix A).

Based on public input, community leadership discussions, and the data already collected from the NRI, the OSI identifies and prioritizes the Town and Village open areas and the connections to them that are important to the community.

## **Public Input**

### *Steering Committee*

In January 2018, a project steering committee consisting of CAC members from Cornwall and Blooming Grove, staff from the Hudson Highlands Land Trust, the Orange County Land Trust, and the DEC Hudson River Estuary Program formed to guide the CACs in the creation of OSIs for each community. The steering committee, which also acted as a work group for the purpose of the DEC grant, met once a month for the duration of the project. This group supported the Cornwall CAC in the creation of the OSI and this report. Project status updates were provided to the Town of Cornwall and Village of Cornwall-on-Hudson boards by Cornwall CAC steering committee members.

### *The Public Input Process*

Gathering public input on the identification of open space characteristics and specific areas of importance to the community was integral to creating the Cornwall OSI. Common views and priorities identified during the public input process included:

- the importance of water resources, including both water quality and quantity
- the importance of storm water/flooding control (climate resiliency)
- appreciation of quality of life and scenic beauty
- the importance of recreational opportunities, tourism, and economic development
- desire to improve connectivity for people and wildlife between already protected open space, town centers, and riverfront

Important to the process were the following public meetings:

- NRI Unveiling/Introduction Natural Heritage Project: Creating Open Space Inventories - Public Presentations with Discussion
  - o June 6, 2018, the Cornwall CAC with Hudson Highlands Land Trust presented and led the discussion at Munger Cottage (municipal building). Town and Village municipal and planning board members, comprehensive plan update committee members, Orange County Water Authority staff, DEC staff, Hudson Highlands Land Trust staff, and community members attended.
  - o June 10, 2018, the Cornwall CAC with Hudson Highlands Land Trust presented and led the discussion at Cornwall Public Library. Town and Village municipal and planning board members, comprehensive plan update committee members, and community members attended.
  - o Close to 100 people attended both unveiling public meetings.
- Community Workshop (Charrette<sup>1</sup>)
  - o November 7, 2018, workshop organized by the Cornwall CAC and Behan Planning and Design held at Munger Cottage, described in more detail in the Development of the Open Space Inventory Map and Priority Areas section

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<sup>1</sup> In community planning and design practice, a charrette has come to mean a public involvement activity where participants work together, often facilitated by trained professionals, to develop ideas for planning and designing future community projects.

of this report. The workshop included (1) a PowerPoint presentation by Behan Planning and Design on the NRI findings and the NRI maps (displayed throughout the workshop rooms on easels), the purpose of the NRI and OSI developed for this project, (2) an interactive resource prioritization exercise developed by Behan Planning to identify open space resources important to the community, and (3) breakout groups/map table discussions facilitated by Hudson Highlands Land Trust, Orange County Land Trust, Behan Planning, DEC, and Cornwall CAC volunteers, where the public marked up large color aerial maps while discussing what natural resources they valued most in their community and why.

The November 7, 2018, community workshop (charrette) was immediately followed up with an online public survey for further input and for people unable to attend the workshop. A second planning consultant retained for this project (Strong Outcomes, LLC) assisted in developing the survey. Outreach publicizing the survey's availability consisted of press releases and flyers, social media posts, and announcements on municipal websites. The survey questions closely followed the public forums and included an online resource prioritization exercise similar to the one used at the November 7, 2018, community workshop. The summarized results of the workshop and online resource prioritization exercises are included in this report in Appendix B. Close to 150 people completed the online survey.

In addition to those activities mentioned above, meetings were held with stakeholders throughout the process. Smaller discussions and one-on-one meetings included meetings with Hudson Highlands Land Trust staff, Orange County Land Trust staff, local business owners, municipal board members, representatives from the Moodna Creek Watershed Intermunicipal Council, members of the Town of Cornwall Comprehensive Plan Update Committee, members of the Town and Village Planning Boards, Open Space Institute, and Black Rock Forest.

Larger group discussion meetings were held in September 2018 with Behan Planning and Design, engaging a diverse group of priority stakeholders in exploring each municipality's open space characteristics and identifying specific areas of importance. These meetings were designed as lead-ins to the community workshops (charrettes) held in November 2018 (and described above). Invitees included representatives from municipal zoning and planning boards of all involved communities; Orange County Planning staff; DEC staff; real estate developers and professionals; community, cultural and environmental not-for-profits; local historical societies; parks and recreation representatives from local and regional organizations; local public and private schools; and local businesses and chambers of commerce. In addition, CAC members from both Blooming Grove and Cornwall were invited to participate.

Throughout the project, discussions and input on the following took place during Cornwall CAC meetings, which included participation of project steering committee members and the general public: project status, determination and delineation of important open areas, prioritization of open areas for conservation, and input on draft OSI maps (priority areas, parcel scoring, and final OSI). A more detailed description of the process used to develop the OSI is provided in the Development of the Open Space Inventory and Priority Areas section of this report.

## **Development of the Open Space Inventory Map and Priority Areas**

In developing the OSI map for the Town and Village, the Cornwall CAC was assisted in the process by professional staff from the Hudson Highlands Land Trust, the Orange County Land Trust, and Behan Planning and Design. Some of the major milestones in the process are summarized below:

Natural Resources Inventory. Data and maps developed for the Cornwall NRI in 2018 with technical assistance from the Orange County Water Authority and DEC's Hudson River Estuary Program, provided the foundation for this project. Cornell University supplanted the NRI data and maps with a more in-depth analysis of the scenic resources in the Town and Village. A sampling of the NRI maps is included in Appendix A. At the time this report was published, all the maps were accessible from the Orange County New York website <https://www.orangecountygov.com/1592/Natural-Resources-Inventory>. The NRI data and maps were used to help identify areas of the Town and Village where natural resource values were highest and of greatest importance for conservation.

Community Workshop (Charrette). At the community workshop (charrette), organized by Behan Planning and Design and held in the fall of 2018, over 50 participants provided input to inform the process of creating the OSI map. As briefly described in the Public Input section found earlier in this report, the charrette was designed as a "hands-on" event where participants were invited to actively engage in contributing their thoughts about conservation priorities in their community. Small groups worked together using maps of the Town and Village to identify areas they considered priorities for conservation. These marked-up maps and notes were an important community input component considered later in the conservation areas identification process by Behan Planning and Design and the CAC.

During the workshop, the participants were also given the opportunity to weigh in via an exercise developed by Behan Planning and Design to prioritize resources. In this activity, participants were provided stickers representing a hypothetical total of \$120 in conservation investment per person. They could use the stickers to invest in or "vote" for the preservation of different resources by spending an allotted number of stickers on 12 different resource categories. A digital version of this conservation investment exercise was established and published in an online public survey to allow participation by residents who were not able to attend the community workshop. The results of this exercise were used to help inform the establishment of a rating system to create the initial priority natural resource area map for the town (see Summarized Survey Results in Appendix B).

Priority Natural Resource Area Map. Utilizing the public input on priorities (gathered at stakeholder meetings, public charrettes, and the online survey), input from Orange County Land Trust and Hudson Highlands Land Trust staff and guided by the CAC, Behan Planning and Design created a rating system to create priority natural resource area maps for the Town and Village. The maps helped identify tax parcels with open space characteristics most important to the community.

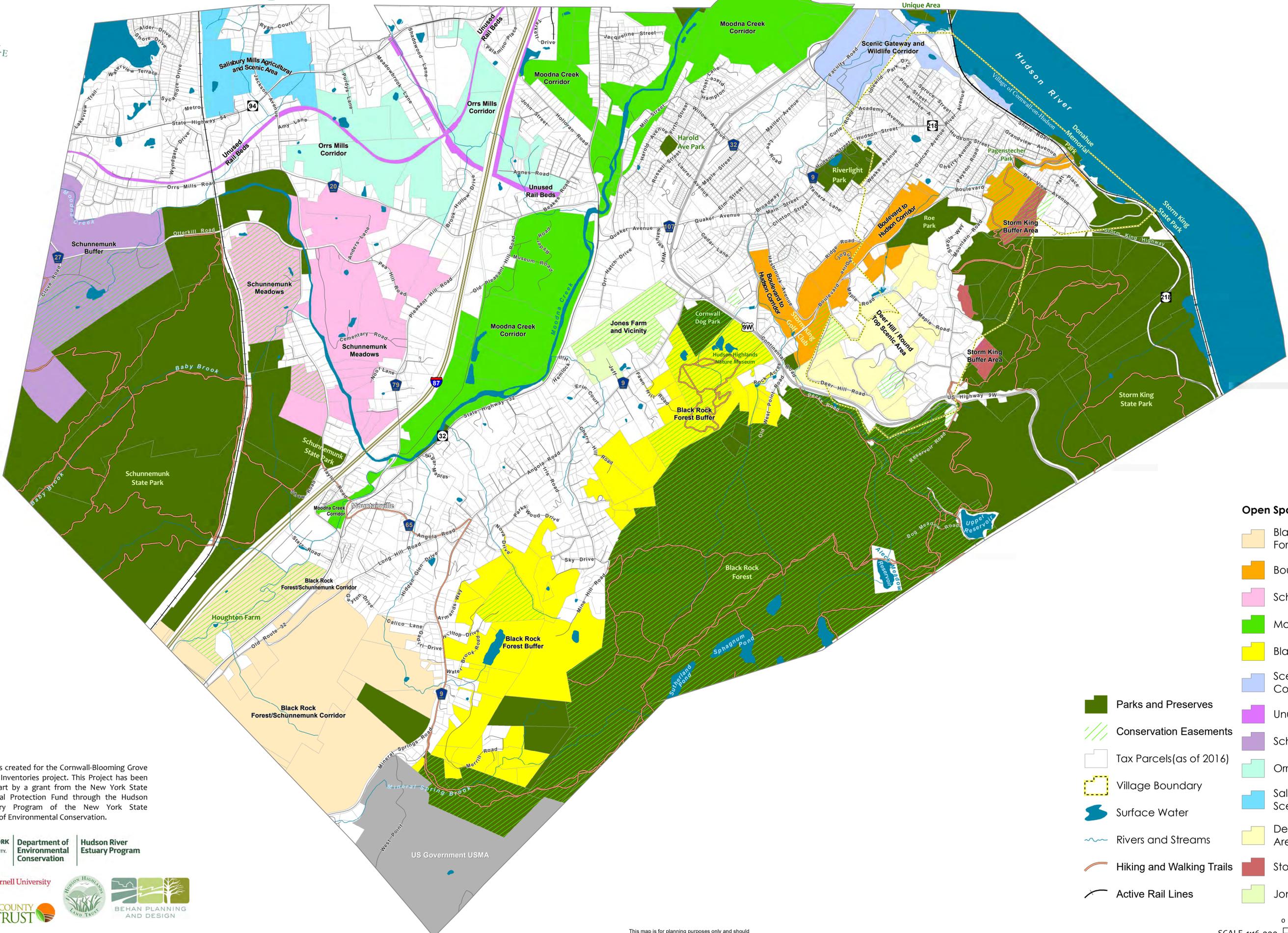
The planning team reviewed the NRI data supplemented with data from a scenic resources inventory conducted in the Town by Cornell University (see Scenic Priority Parcel map in Appendix C) and, using the community input, worked to develop and refine a rating system that could be applied to the mapping. Since some resources are considered to be of higher value than others, it was important to develop a relative scale within each category. For example, the water resources found in the Town were highly valued by the public and were given a relatively high rating in the evaluation system.

The rating system was applied on a Town-wide basis using a Geographic Information System (GIS). GIS has the capability to digitally overlay a large number of maps to identify where natural resources occur and overlap. Areas of highly rated resources—in particular those areas where more of the resources overlapped—received a higher score. This allowed the CAC to visualize the areas with the most important and highly rated resources (see the Cornwall Priority Areas map in Appendix D). When combined with the tax parcel map, this information provided an important initial evaluation of individual tax parcels with high conservation value (see the Cornwall Parcel Scoring map in Appendix E).

Since natural resources are not limited to tax parcel boundaries, it was important to look more comprehensively at the corridors and connections that make up the natural resource landscape of the Town and Village. Behan Planning and Design developed a concept map of potential priority areas that provided a more interconnected perspective on open space areas. This concept map was used by the CAC as an input to their subsequent work toward the development of the OSI map—one of the final products of this Natural Heritage Project (see Cornwall Priority Areas Concept map in Appendix F).

Open Space Inventory Map. Building upon all of the prior efforts summarized above, the CAC reviewed the information collected and compiled previously and went about the task of identifying the areas of the Town and Village that represent Cornwall’s conservation priorities.

The color-coded Open Space Inventory Map shows distinct geographic areas of importance to the community. Each area of importance is listed and described in the open space inventory according to priority for conservation as developed by the CAC.



### Open Space Areas

- Black Rock Forest/Schunnemunk Corridor
- Boulevard to Hudson Corridor
- Schunnemunk Meadows
- Moodna Creek Corridor
- Black Rock Forest Buffer
- Scenic Gateway and Wildlife Corridor
- Unused Rail Beds (~6 mi)
- Schunnemunk Buffer
- Orrs Mills Corridor
- Salisbury Mills Agricultural and Scenic Area
- Deer Hill / Round Top Scenic Area
- Storm King Buffer Area
- Jones Farm and Vicinity

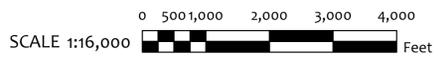
- Parks and Preserves
- Conservation Easements
- Tax Parcels (as of 2016)
- Village Boundary
- Surface Water
- Rivers and Streams
- Hiking and Walking Trails
- Active Rail Lines

This map was created for the Cornwall-Blooming Grove Open Space Inventories project. This Project has been funded in part by a grant from the New York State Environmental Protection Fund through the Hudson River Estuary Program of the New York State Department of Environmental Conservation.



Map prepared by Rick Lederer-Barnes, November 2019

This map is for planning purposes only and should not be used for navigation or legal determinations.



# Town of Cornwall & Village of Cornwall-on-Hudson Open Space Inventory

## Cornwall - Blooming Grove Natural Heritage Project

Prepared by the Cornwall Conservation Advisory Council

### Parcel Selection Criteria

The parcels in this inventory were reviewed and selected based on criteria balancing community input with expert knowledge that should be carefully considered when making land use and preservation decisions. The majority of the parcels selected are vacant land (no structures present), although some parcels with one or more structures present may have been selected due to the significant natural resources present on part of the parcel. Large parcels that represent significant open space were given priority. Proximity to existing open and protected spaces was another criterion in the prioritization process, as was the presence of significant natural resources as identified by the *Cornwall Natural Resources Inventory (Cornwall NRI)*. Parcels that are already protected by conservation easements have been included in this inventory because, while technically protected, many conservation easements retain reserved rights for certain kinds of development. Publicly protected lands such as state, county, and municipal parklands were excluded from this inventory. Parcels that were maximally developed or otherwise not subdividable were also not included. Finally, parcel ownership was blinded during the review and selection process and played no part in this prioritization.

### Parcel priority characteristics key

Community Value		<i>Scenic viewshed</i>	Areas that fall within a scenic viewshed offer opportunities for tourism and represent a resource highly valued by existing residents.
		<i>Recreational resources</i>	Areas that currently do, or potentially could, support hiking, fishing, boating, and biking. These resources can drive eco-tourism in the region and are highly valued by existing residents.
		<i>Agricultural resources (either active or fallow)</i>	Areas that are important to sustaining agriculture on the landscape. They provide habitat and scenic value, while potentially generating revenue for owners and the municipality.
Environmental Value		<i>Significant forest cover</i>	Forest cover that provides vital habitat, scenic beauty, cleans the air of particulate pollution, produces oxygen, recharges aquifers, and reduces flood risk.
		<i>Known wetlands</i>	Areas that are classified as wetland or probable wetland by the DEC and the National Wetlands Inventory (NWI). Wetlands can reduce flooding, purify water, buffer against storm surge, and provide critical habitat for numerous species.
		<i>Climate change resilience</i>	Natural characteristics that help reduce or protect against the effects of climate change. These include flood and drought mitigation, moderation of local climate, and carbon sequestration.

<b>Water Resource Concerns</b>	 <i>Water supply concern</i>	Resources that contribute to municipal and private water supply, whether in the form of reservoirs, watershed terrain, streams, or aquifers, and that are vulnerable to degradation.
	 <i>Flooding mitigation/management concern</i>	Areas that are prone to flooding or where flooding poses a significant threat to municipal and private infrastructure.
<b>Wildlife/Habitat Value</b>	 <i>Significant terrestrial wildlife habitat</i>	Terrestrial wildlife habitat ranges from the microhabitats of amphibians, reptiles, and small mammals, to some large predators that require large, undeveloped areas.
	 <i>Waterway or body supporting migratory fish species</i>	Migratory fish species include diadromous species, such as herring and shad, as well as catadromous species, like glass eel. Tributaries and streams that are uncontaminated, not blocked by dams and culverts, and have a generally uncompromised flow are the best candidates for hosting these species
	 <i>Important bird habitat</i>	Areas that are important for both local and migratory species of birds. These areas can range from forest to riparian buffer to open meadow.

## NHP Priority Areas

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### Black Rock Forest/Schunne-munk Corridor (829 acres)



Bordered on the south by the Town of Cornwall boundary, on the west by Interstate 87, on the east by Mineral Springs Rd., and on the north by residential and industrial development in the hamlet of Mountainville.

While this area is intersected by State Rt. 32 and Interstate 87, the parcels selected represent an important linkage of forest cover and other terrestrial habitat between the regionally significant matrix forest of Black Rock Forest and the regionally significant forest of Schunne-munk State Park. Both Black Rock Forest and Schunne-munk State Park are home to significant natural communities, as identified by the NY Natural Heritage Program, and the parcels included in this area represent an important habitat corridor. The protection of these lands has the potential to prevent Schunne-munk Mountain from becoming an isolated habitat island. In addition, this area could provide connectivity between well-established recreational resources. Most of this priority area lies within the Hudson Highlands West Important Bird Area identified by the NY Audubon Society. Woodbury Creek and its tributaries, which support migratory fish populations, run through this area and a number of the parcels selected contain important riparian forest and other habitats that buffer the creek from negative impacts. Much of this land also lies within the Woodbury Creek 100-year floodplain, and these same parcels lie over a large, regionally significant stratified clay and silt aquifer that provides well water for much of Mountainville and other private residences on the Rt. 9 corridor. In addition to creek and riparian habitat, the former Houghton Farms parcel and other adjacent parcels within the floodplain consist of farmland of statewide importance or prime farmland.

### Boulevard to Hudson Corridor (256 acres)



Bordered on the west by Continental Rd., to the south and east by the Dear Hill Road and Maple Road elevations, and to the north by the Hudson River.

This area is a non-contiguous corridor of parcels that run from the Hudson River southwest to Rt. 9W. Much of the area follows the Boulevard, which is an important connector between the Village of Cornwall-on-Hudson and its riverfront and Rt. 9W and the center of the Town of Cornwall. The route is a popular recreational corridor used for walking, biking, and running, and the parcels along the road are important to the scenic character of the Town and Village. The Storm King Golf Course is included in this area due to its scenic and recreational value. Most of the parcels on the north side of the Boulevard are primarily wooded with intermittent open meadow areas, and have a small number of structures present on them. The parcels on the south side of the Boulevard are largely vacant and wooded. The entire length of the Boulevard is within a hollow and, along with its locally significant forest cover, plays an important role in draining the elevated areas to the south and east. At the northern end of the corridor in the Village, the area includes one large agricultural parcel with open meadow habitat, and numerous small, Village-owned properties on either side of Dock Hill Rd. descending down to the riverfront. While these parcels are Village-owned, they are not protected and therefore have been included. Tree cover on these parcels is vital to the stabilization of the steeply sloped terrain on either side of the road and creek.

### Schunnefunk Meadows (769 acres)



Bordered on the west by Schunnefunk State Park, the east by Pleasant Hill Rd., the south by Interstate 87, and the north by Orrs Mills and Otterkill roads.

The regionally significant forest of Schunnefunk State Park covers many of the parcels along this area's western border. As stated in the *Schunnefunk Buffer* description, the state park is home to significant biodiversity and natural communities, and is a known important area for rare species identified by the NY Natural Heritage Program. In addition to the parcels bordering the state park, much of this priority area is covered by regionally significant forest that provides important terrestrial and bird habitat. The Moodna Creek, which provides habitat for a number of migratory fish, flows south through this area and a number of the smaller parcels selected lie completely or partially within the 100-year flood plain. A significant portion of this priority area lies over stratified sand and gravel or clay and silt surface aquifers that are an important part of the Town and Village's water infrastructure. That infrastructure includes four public wellheads that are located within this priority area. Five parcels along the north side of this priority area lie either fully or partially within a scenic area of county-wide significance (the Moodna Valley and Viaduct). Much of this area that is not forested is covered by active and abandoned agricultural land, which provides important wildlife habitat. Two of the largest parcels in this area are active farmland, and a majority of this priority area is comprised of farmland soils of statewide importance, with certain parcels containing significant amounts of prime farmland. Also present in a parcel at the northeast corner of this area is a large portion of a DEC-regulated wetland.

### Moodna Creek Corridor (979 acres)



Bordered to the south and east by development along State Rt. 32, to the west by Interstate 87, and to the north by the Moodna Creek.

This corridor of parcels follows the Moodna Creek from the southwest corner of the Town to the mouth of the creek, but also includes some large parcels of open meadow/agricultural land and wetlands to the west of the creek. The Moodna Creek is a vital part of the Hudson River estuary and watershed, and is home to a number of migratory and other fish populations that provide recreation and ecological benefits. The north end of this corridor encompasses one of the largest remaining wooded parcels within the Town. The parcels on either side of the creek tend to be wooded and steeply sloped, especially the stretch of creek between the bridge over Rt. 32 and the Hudson River where significant erosion along the creek banks has been attributed to recent storm events. Portions of many of these parcels fall within the 100-year and 500-year floodplains of the creek. To the west are a number of parcels that are mostly covered by DEC-regulated wetland and are heavily wooded. These have been included because of habitat connectivity, the relatively large size of the parcels, and the fact that DEC wetland regulation only limits development potential. Further south, the open spaces of the Storm King Art Center have been included because of their important habitats, their unique position in between two regional viewsheds (Hudson Highlands and Schunnemunk Mountain), and their cultural importance to the Town. A number of parcels in this area lie over stratified sand and gravel aquifers. The Cornwall NRI also notes that a stretch of this corridor running from the old Firth Carpet Factory to the northern border of the Town is a DEC remediation site.

### Black Rock Forest Buffer (867 Acres)



Bordered on the south and east by Black Rock Forest, on the west by development along Mineral Springs Rd. and Angola Rd. (Rt. 9), and on the north by State Rt. 9W.

Primarily abutting Black Rock Forest, the parcels in this priority area are almost entirely covered by unbroken, regionally significant forest and lie within an area identified as matrix forest as referenced in the *Cornwall NRI*. Matrix forest is defined by its contiguous habitat and ability to maintain ecological processes. Black Rock Forest is home to numerous rare species and has a number of specific sites where state threatened or endangered species have been recorded by the NY Natural Heritage Program. In addition to providing continuum to the important forest cover and terrestrial habitat of Black Rock Forest, portions of this priority area lie within the Hudson Highlands West Important Bird Area identified by the NY Audubon Society. The largest parcel in this area is the Hudson Highlands Nature Museum, which is protected by a conservation easement and is currently open to the public. Many of the parcels in this area feature varied topography and elevation, or are steeply sloped. These elevations provide scenic value, and the existing tree cover reduces stormwater runoff to the downslope residential development to the northwest along Angola Road (Rt. 9) during storm events. Much of this area also falls within the Mountain and Conservation Residence or Agricultural Rural Residence zoning overlays

within the Town. Protection of parcels bordering Black Rock Forest presents the opportunity for expanded recreational access.

### Scenic Gateway and Wildlife Corridor (154 acres)



Bordered on the west by State Rt. 9W, on the south by Academy Ave., on the east by Curie Rd., and on the north by the Hudson River.

This area is dominated by four large parcels, two of which make up the bulk of the New York Military Academy (NYMA), a private preparatory school, and which are characterized by sparse development and numerous open fields that are part of the scenic gateway along Rt. 9W. These parcels provide an important buffer between the residential development of the Town and Village to the south and east, and the Moodna Creek estuary to the north, which is home to rare plant species, significant natural communities, and submerged aquatic vegetation that is vital for numerous spawning fish populations, all of which are identified by the NY Natural Heritage Program. This priority area is divided between land that is located on the bluffs above the riverfront, which affords views of the Hudson Highlands and Hudson River valley, and land that is steeply sloped or runs along the waterfront and is wooded. Also contained in the area is the unique and historic Idlewild Creek gorge. This natural feature channels precipitation and runoff away from existing development and contains riparian forest habitat that buffers the Idlewild creek just upstream from the important tidal habitats of the Moodna Creek. To the north and east are a number of smaller parcels that lie within the floodplain of the Hudson and contain portions of DEC-protected wetlands. Interspersed with these open space parcels are important Town and Village infrastructure such as the wastewater treatment plant and the Department of Public Works building. At the eastern edge of this area is a single wooded parcel owned by the Village that lies along the shore of the Hudson and to the north of the CSX rail line. Finally, this area, combined with the open spaces in the northern portion of the Moodna Creek corridor, provides a scenic gateway to Cornwall for those entering from the north.

### Unused Rail Beds (~6 miles)



These parcels follow the remnants of the old Erie and O&W rail lines and present potential opportunities for conversion to alternate uses. These parcels are largely wooded and, in general, are bordered by other open space parcels of either forest or meadow. Portions of these rail beds are at significant elevation affording scenic views of the surrounding highlands. Proximity to Cornwall High School and Storm King Art Center could allow for alternative access to these locations from points further west in the Town and the Salisbury Mills commuter rail station. These rail beds continue into the Town of Blooming Grove, offering the potential for intermunicipal recreation.

### Schunnefunk Buffer (374 acres)



Bordered on the east and south by Schunnefunk State Park, on the west by the Town of Cornwall boundary with the Town of Blooming Grove, and on the north by Moodna Creek.

This area on the western border of Cornwall consists of a number of large undeveloped parcels. Portions of the parcels at the southern end of this area that border Schunnefunk State Park are steeply sloped at a grade of over 25%, and are covered by unbroken blocks of forest of regional significance, creating a continuum of wildlife habitat with the park. Schunnefunk State Park is home to significant natural communities as identified by the NY Natural Heritage Program. The state park and significant areas adjacent to it lie within the Hudson Highlands (West) Significant Biodiversity Area, and is a known important area for rare species. A single parcel in this priority area is a known breeding habitat for a state endangered species. Other parcels in this area are characterized by open meadow habitat, and much of this portion is classed as farmland of statewide importance by the USDA and Natural Resources Conservation Service (NRCS). A number of the wooded parcels in this area fall within the Hudson Highlands West Important Bird Area identified by the NY Audubon Society. Parcels on the north side of this area bordering the Moodna Creek, a waterbody supporting migratory fish, lie primarily within the 100-year flood plain. In addition, a significant portion of this area lies over stratified sand and gravel aquifer that is an important source of well water for area residents. Much of this area connects across the municipal border to a similar priority area identified by the Town of Blooming Grove.

### Orrs Mills Corridor (414 acres)



Bordered on the south by Orrs Mills Rd., the north by development along Rt. 94, the east by Interstate 87, and the west by residential development along Jackson Ave.

This priority area is made up of a number of large agricultural or forested parcels. There is one active farmland parcel in the area, and much of the land in this area is characterized by farmland soils of statewide importance by the USDA and NRCS. There is varied topography in this area with some steeply sloped elevations interspersed with hollows that contain portions of DEC-protected wetland, NWI wetland or probable wetland. The majority of the parcels are linked together by their proximity to old, unused rail beds that have the potential for reuse (see *Unused Rail Beds*). The parcels surrounding these rail beds provide the kind of forest habitat and undeveloped open space ideal for supporting eco-tourism and regional recreational activity. Additionally, a number of parcels in this area along Orrs Mills Rd. are within the viewshed of Schunnefunk Mountain and the Moodna Valley Viaduct scenic area of county-wide significance, which encompasses most of Orrs Mills Rd. between the Interstate 87 and the western border of Cornwall.

### Salisbury Mills Agricultural and Scenic Area (160 acres)



Bordered on the north by the Town of Cornwall boundary and residential development off of Jackson Ave., to the south by State Rt. 94, to the east by the *Orrs Mills Corridor* Priority Area, and to the west by the Metro North commuter rail line.

This area is comprised of a small number of large, mostly agricultural parcels that represent some of the last remaining open, rural farmland within the Town. These parcels contain unmaintained meadows or are used for hay; both important habitats for imperiled bird species. One of the parcels is actively farmed as the only remaining dairy operation in the Town. Not surprisingly, most of the area is covered by farmland soils of statewide importance as defined by the USDA and NRCS. The elevation of these lots means that they have views of and are visible from Schunnemunk Mountain and the Hudson Highlands to the south. The one parcel that is located on the south side of Rt. 94 contains a large portion of a DEC-regulated wetland.

### Deer Hill / Round Top Scenic Area (211 acres)



Bordered on the south by State Rt. 9W, on the east by residential development along Mountain Rd., on the west by the *Boulevard to Hudson Corridor* Priority Area, and to the north by Roe Park.

This area is primarily situated on a densely wooded and often steeply sloped elevation that is a shoulder of Storm King Mountain. The area is a sparsely populated mix of residential and vacant parcels. Almost the entire area is zoned within the Conservation Residential (Scenic) or Conservation Residential (Rural) districts within the Village. Almost the entire area is classified as locally significant forest and provides important habitat connectivity between Storm King State Park and Black Rock Forest. The exception is portions of two parcels that are open meadow. The forested elevation of this area is visible from multiple points in the Town and Village and provides important scenic value. The northern end of this priority area connects to Roe Park and the recreational trails of the Hudson Highlands Nature Museum.

### Storm King Buffer Area (50 acres)



Bordered on the east and south by Storm King State Park, and to the west by Mountain Rd. This is a non-contiguous priority area with parcels linked by their proximity to preserved state park land.

This area consists of a small number of parcels that border Storm King State Park on its northern and western boundaries. They were prioritized because of their size, their proximity to already protected state parkland, and their locally important forest cover that provides important wildlife habitat and rural scenic character. All but one of these lots have existing structures on them, but are large enough to contribute to the rural, forested character of an area that is immediately adjacent to state parkland.

Maintaining these parcels as they are could prevent further fracturing of contiguous habitat, slope erosion, and alteration of stormwater runoff patterns.

### Jones Farm and Vicinity



Bordered by Angola road to the south and east, and low-density residential development on the west and north.

This area mainly consists of the Jones Farm parcel, which is covered by an agricultural conservation easement held by the Hudson Highlands Land Trust. A tree farm is also included in this area due to its size and agricultural value to the Town. Most of this priority area is covered by farmland soils of statewide importance as defined by the USDA and NRCS. Like the Storm King Art Center parcels, much of this area is notable for being at a considerable elevation and in between two regional viewsheds (Hudson Highlands and Schunnemunk Mountain). In terms of open spaces, this area is part of a locally identified contiguous wildlife corridor from Black Rock Forest, through the Hudson Highlands Nature Museum, across the *Moodna Creek Corridor* Priority Area and the Storm King Art Center, and on to the *Schunnemunk Meadows* Priority Area. Portions of this area are unmaintained meadows or used for hay, which offers important breeding habitat for imperiled bird species.

## Terminology and Abbreviations

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### **NY Natural Heritage Program**

The New York DEC Natural Heritage Program (NYNHP) keeps the most comprehensive database available on the status and location of rare species and natural communities. The specific location of rare, threatened, and endangered species are not identified in this report for their protection and in conformance with DEC policy.

### **Important Bird Area**

The Important Bird Area (IBA) Program of Audubon New York has identified 136 critical bird breeding, migratory stop-over, feeding, and over-wintering areas in the state. Important Bird Areas have been identified throughout New York in all types of habitats, including forests, shrub/scrub, grasslands, freshwater and saltwater wetlands, and bodies of water.

### **Prime Farmland**

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land (excluding highly developed areas and open water). The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. Soils that are designated as Prime Farmland if Drained meet all the prime farmland criteria except for depth to seasonal high water table, and are suitable for drainage. In New York, somewhat poorly drained soils are designated as prime farmland if drained, if they meet all criteria for prime farmland other than depth to water table.

### **Farmland of Statewide Importance**

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be farmland of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. In New York, Farmland of Statewide Importance soils are soils that do not meet all the criteria for Prime Farmland or Prime Farmland if Drained, but are mineral soils in land capability classes 2e, 2s, 2w, 3e, 3s, 3w, or 4w.

### **DEC-regulated wetlands**

All DEC regulated wetlands, that is wetlands over 12.4 acres in size or smaller wetlands of unusual local importance, in New York State are classified by law into four classes; Class I, II, III, and IV. Class I is the most important, unique and valuable, Class IV is less important and less unique. The National Wetland Inventory (NWI) is a federally recognized database of wetlands divided into what is called a Cowardin Classification system. ([http://www.fws.gov/nwi/Pubs/Reports/Class Manual/class titlepg.htm](http://www.fws.gov/nwi/Pubs/Reports/Class%20Manual/class%20titlepg.htm)) This database is larger overall than the DEC regulated wetland database because it includes wetlands of all sizes that were mapped using "high altitude aerial photography"

### **Matrix Forest**

Matrix forest blocks are large contiguous areas of a size and natural condition that allows for the maintenance of ecological processes, viable occurrences of matrix forest communities, embedded large and small patch communities, and embedded species populations. The goal of the matrix forest selection was to identify viable examples of the dominant forest types that, if

protected and allowed to regain their natural condition, would serve as critical source areas for all species requiring interior forest conditions or associated with the dominant forest types. The matrix forest block mentioned in this report and the *Cornwall NRI* was developed in partnership between the New York Natural Heritage Program and The Nature Conservancy.

#### **Hudson Highlands (West) Significant Biodiversity Area**

The New York State Department of Environmental Conservation (NYSDEC) Hudson River Estuary Program worked with the New York Cooperative Fish and Wildlife Research Unit at Cornell University and the NY Natural Heritage Program to develop Significant Biodiversity Areas (SBAs) for the Hudson River estuary region. SBAs are landscape areas with a high concentration of biological diversity or value for regional biodiversity. SBAs are defined by unique topography, geology, hydrology, and biology that distinguish them from neighboring areas. Significant Biodiversity Areas carry no regulatory designation. Instead, it is hoped that recognition of these areas will serve as a basis for their voluntary conservation through conservation partnerships involving multiple stakeholders. Landscape conservation initiatives focusing on the Shawangunk Ridge, Hudson Highlands, and Albany Pine Bush involve partners such as non-profit organizations, landowners, businesses, and government agencies and serve as regional models for conservation of SBAs. The identification of SBAs supports research, monitoring, and conservation efforts focused on conserving the patterns and processes that maintain biodiversity at the local to northeast regional scales.

**USDA:** United States Department of Agriculture

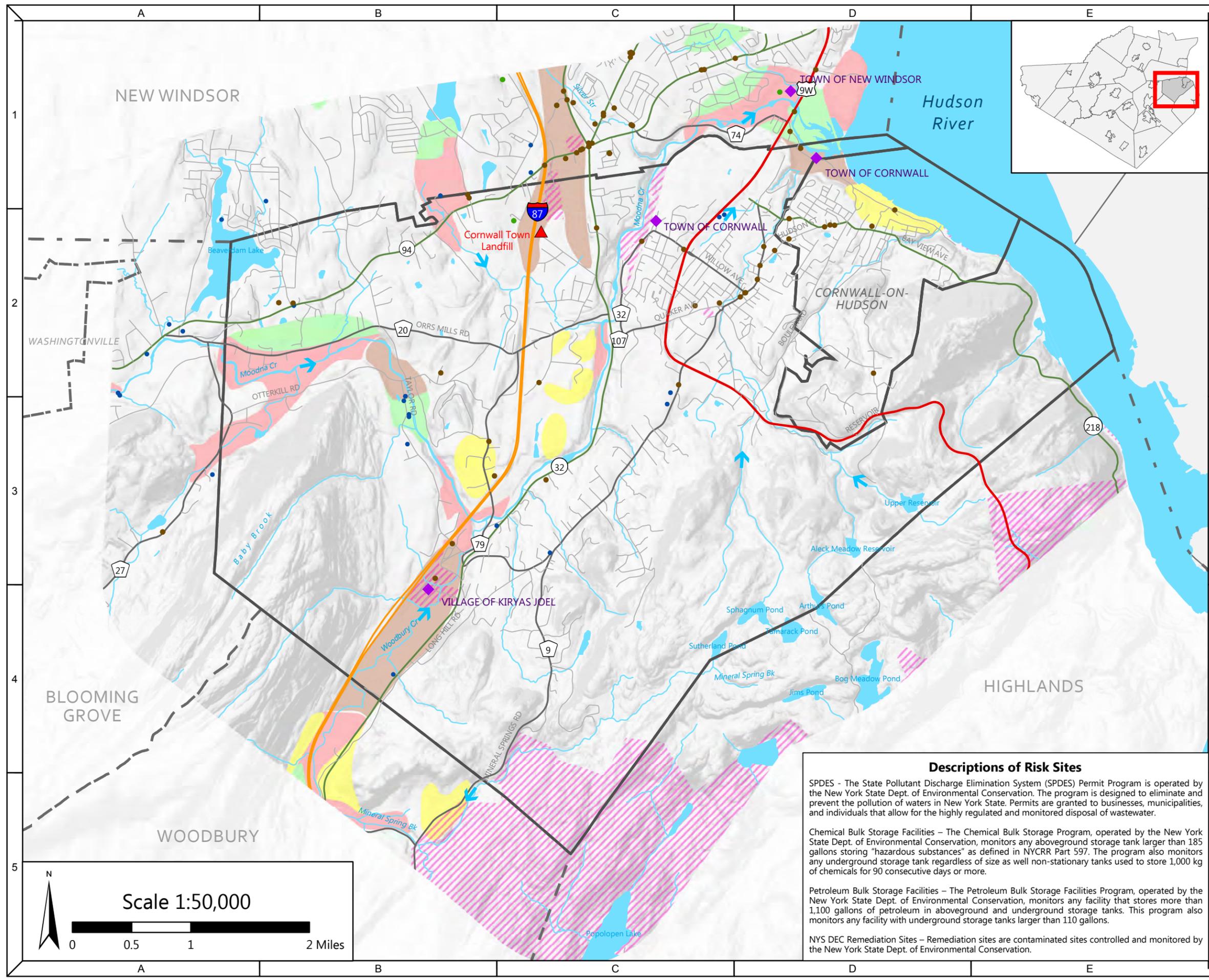
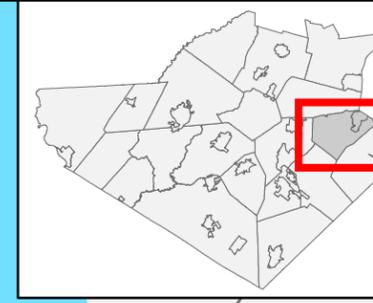
**NRCS:** Natural Resources Conservation Service

## **APPENDIX**

**APPENDIX A – NATURAL RESOURCE INVENTORY MAPS**

NATURAL RESOURCES INVENTORY

Public Wells, Aquifers, and Risk Sites



**Wells and Environmental Risk Sites**

- Public Wells
- ◆ SPDES Permits and Owners
- Petroleum Bulk Storage Facilities
- Chemical Bulk Storage Facilities
- ▨ NYS DEC Remediation Sites

**Aquifers**

- ▨ Stratified sand and gravel at land surface and below water table
- ▨ Stratified sand and gravel below clay or silt and the water table
- ▨ Stratified clay and silt with no or thin layers of sand and gravel at land surface and below water table
- ▨ Stratified sand and gravel at land surface and above water table

**Roads**

- Interstate
- Federal Highway
- State Route
- County Road
- Local Road

**Hydrology**

- Water Bodies
- Streams
- Direction of Flow

DATA SOURCES: New York State Dept. of Environmental Conservation, 2017; United States Geological Survey, 2017; New York State Dept. of Transportation, 2017; Orange County Dept. of Planning, 2018

Creating Natural Resources Inventories (NRIs) in Orange County Communities is a partnership project between OCWA and Cornell University Department of Natural Resources, with funding from the Environmental Protection Fund through the New York State Department of Environmental Conservation Hudson River Estuary Program.

Orange County Department of Planning  
 B. Freiman 6/20/2018

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**Descriptions of Risk Sites**

SPDES - The State Pollutant Discharge Elimination System (SPDES) Permit Program is operated by the New York State Dept. of Environmental Conservation. The program is designed to eliminate and prevent the pollution of waters in New York State. Permits are granted to businesses, municipalities, and individuals that allow for the highly regulated and monitored disposal of wastewater.

Chemical Bulk Storage Facilities - The Chemical Bulk Storage Program, operated by the New York State Dept. of Environmental Conservation, monitors any aboveground storage tank larger than 185 gallons storing "hazardous substances" as defined in NYCRR Part 597. The program also monitors any underground storage tank regardless of size as well as non-stationary tanks used to store 1,000 kg of chemicals for 90 consecutive days or more.

Petroleum Bulk Storage Facilities - The Petroleum Bulk Storage Facilities Program, operated by the New York State Dept. of Environmental Conservation, monitors any facility that stores more than 1,100 gallons of petroleum in aboveground and underground storage tanks. This program also monitors any facility with underground storage tanks larger than 110 gallons.

NYS DEC Remediation Sites - Remediation sites are contaminated sites controlled and monitored by the New York State Dept. of Environmental Conservation.

Scale 1:50,000



NATURAL RESOURCES INVENTORY

Steep Slopes

Slope Grade

- 8 - 15% Slope
- 15.1 - 25% Slope
- >25% Slope

Hydrology

- Streams
- Water Bodies

Roads

- Interstate
- Federal Highway
- State Route
- County Road

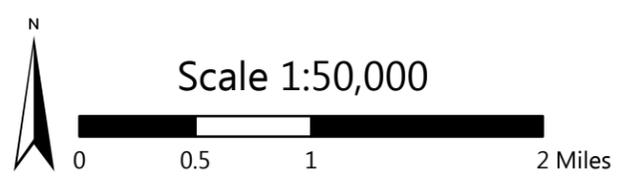
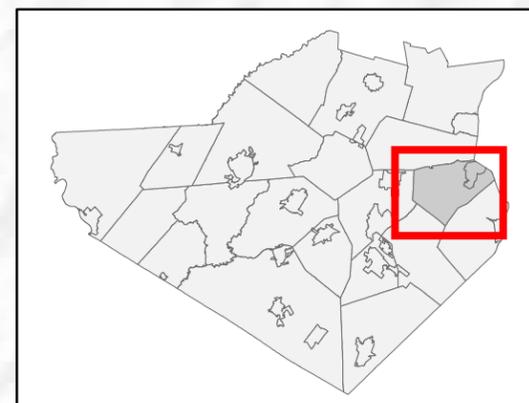
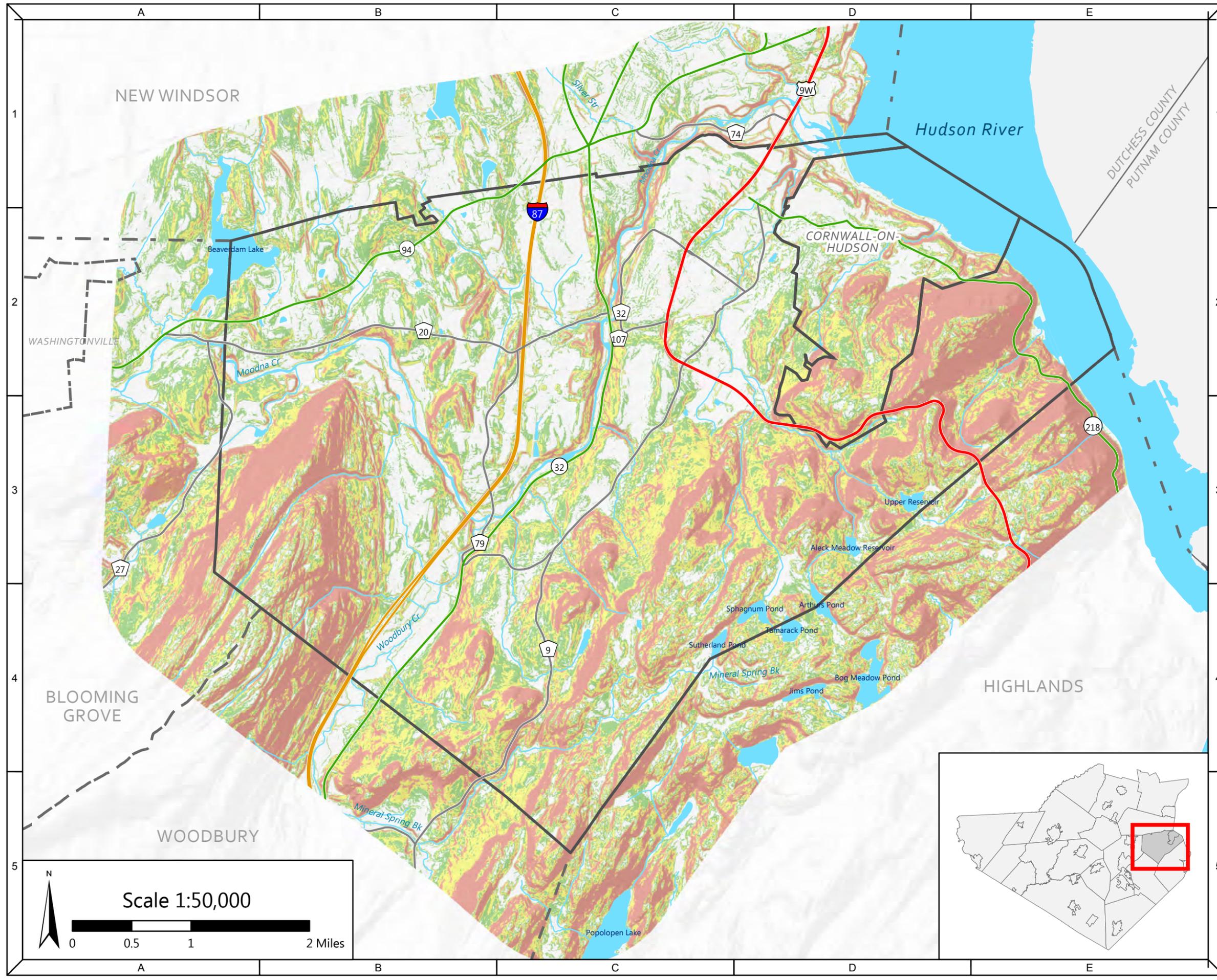
DATA SOURCES: United States Dept. of Agriculture Soil Conservation Service, 2017; United States Geological Survey, 2017; New York State Dept. of Transportation, 2017; Orange County Dept. of Planning, 2018

Slope data acquired from the USDA Soil Conservation Service: Soil Survey of Orange County, NY; KS Olsen et al 1975. Soil map units analyzed by OCWA to three categories of slope: suffix "C" 8-15% slope; suffix "D" 15-25% slope or "moderately steep"; and suffix "F" >25% slope "very steep".

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**NATURAL RESOURCES INVENTORY**  
**Wetlands and Hydric Soils**

**Wetlands and Hydric Soils**

-  NYS DEC Wetlands
-  NWI Wetlands
-  Probable Wetlands (Hydric Soils)
-  Possible Wetlands (Somewhat Poorly Drained Soils)

**Hydrology**

-  Water Bodies
-  Streams

**Roads**

-  Interstate
-  Federal Highway
-  State Route
-  County Road
-  Local Road

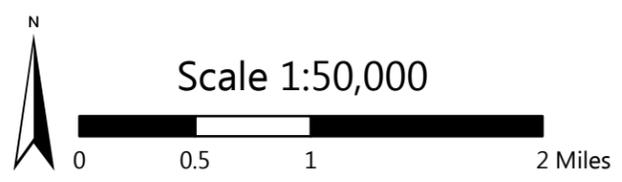
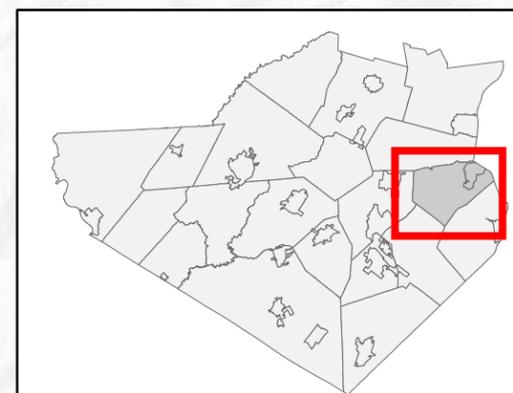
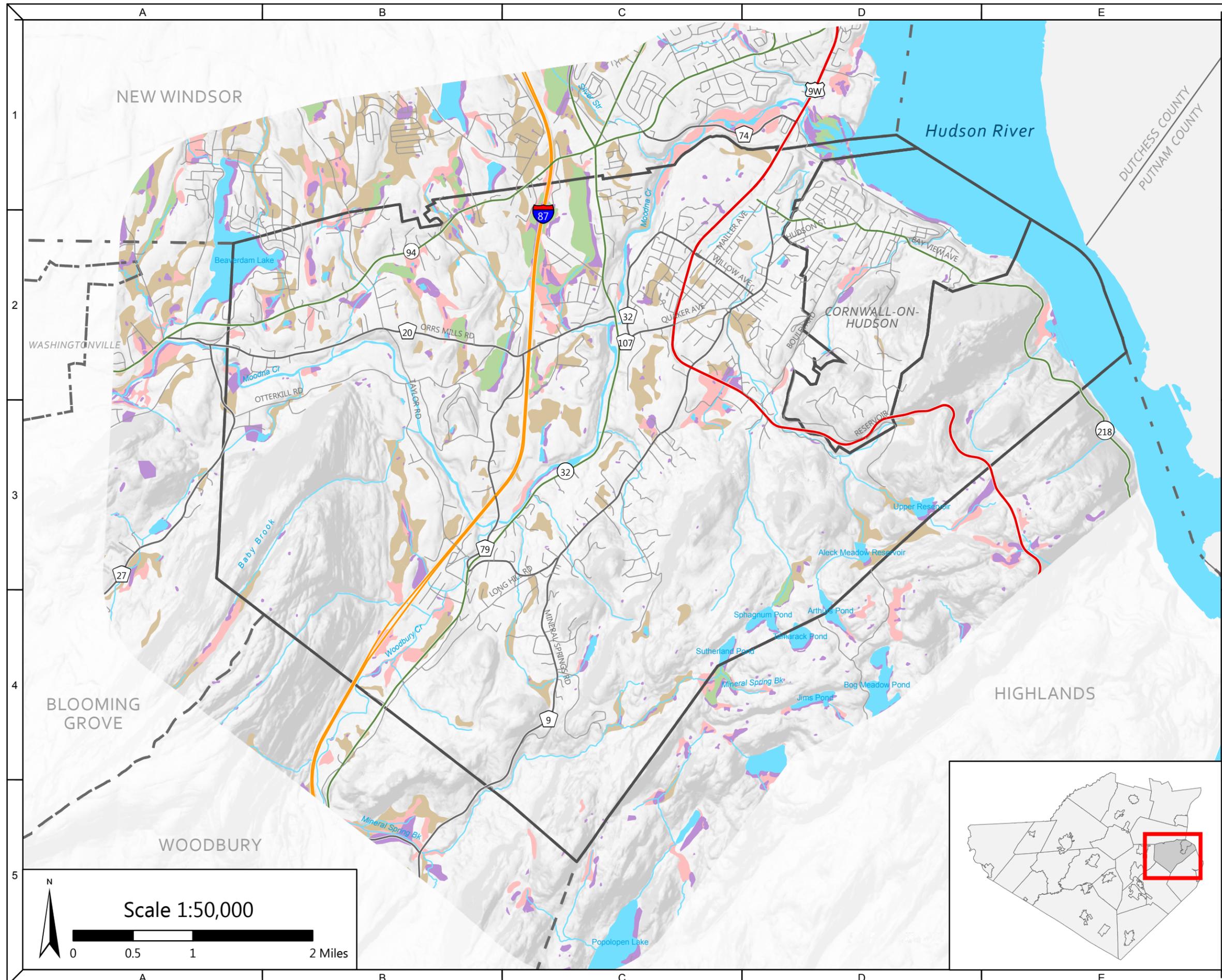
DATA SOURCE: United States Geologic Survey, 2017; New York State Dept. of Environmental Conservation, 2017; National Wetland Inventory, 2017; United States Department of Agriculture, 2017; New York State Dept. of Transportation, 2017; Orange County Dept. of Planning, 2018

This map depicts wetlands delineated by the New York State Department of Environmental Conservation (NYSDEC) and wetlands identified in the USFWS National Wetlands Inventory. Probable and possible wetlands are also shown. These areas were identified based on soil drainage. Probable wetlands consist of hydric soil and possible wetlands consist of somewhat poorly drained soil.

Creating Natural Resources Inventories (NRIs) in Orange County Communities is a partnership project between OCWA and Cornell University Department of Natural Resources, with funding from the Environmental Protection Fund through the New York State Department of Environmental Conservation Hudson River Estuary Program.

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NATURAL RESOURCES INVENTORY

Calcareous and Glacial  
 Outwash Soils

Soil Types

-  Glacial Outwash
-  Calcareous
-  Somewhat Calcareous

Hydrology

-  Water Bodies
-  Streams

Roads

-  Interstate
-  Federal Highway
-  State Route
-  County Road
-  Local Road

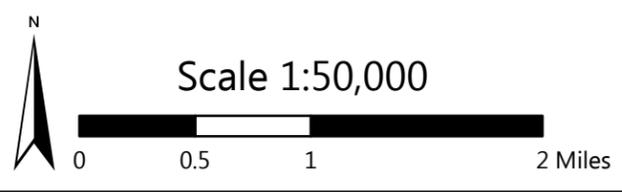
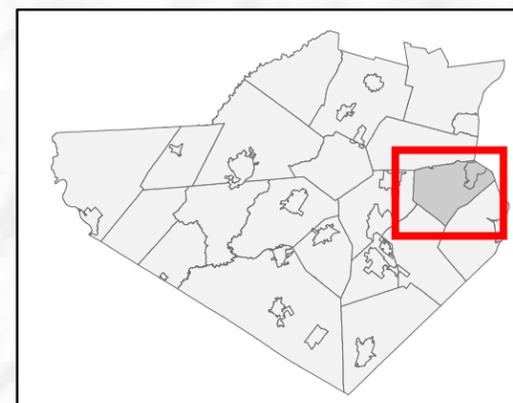
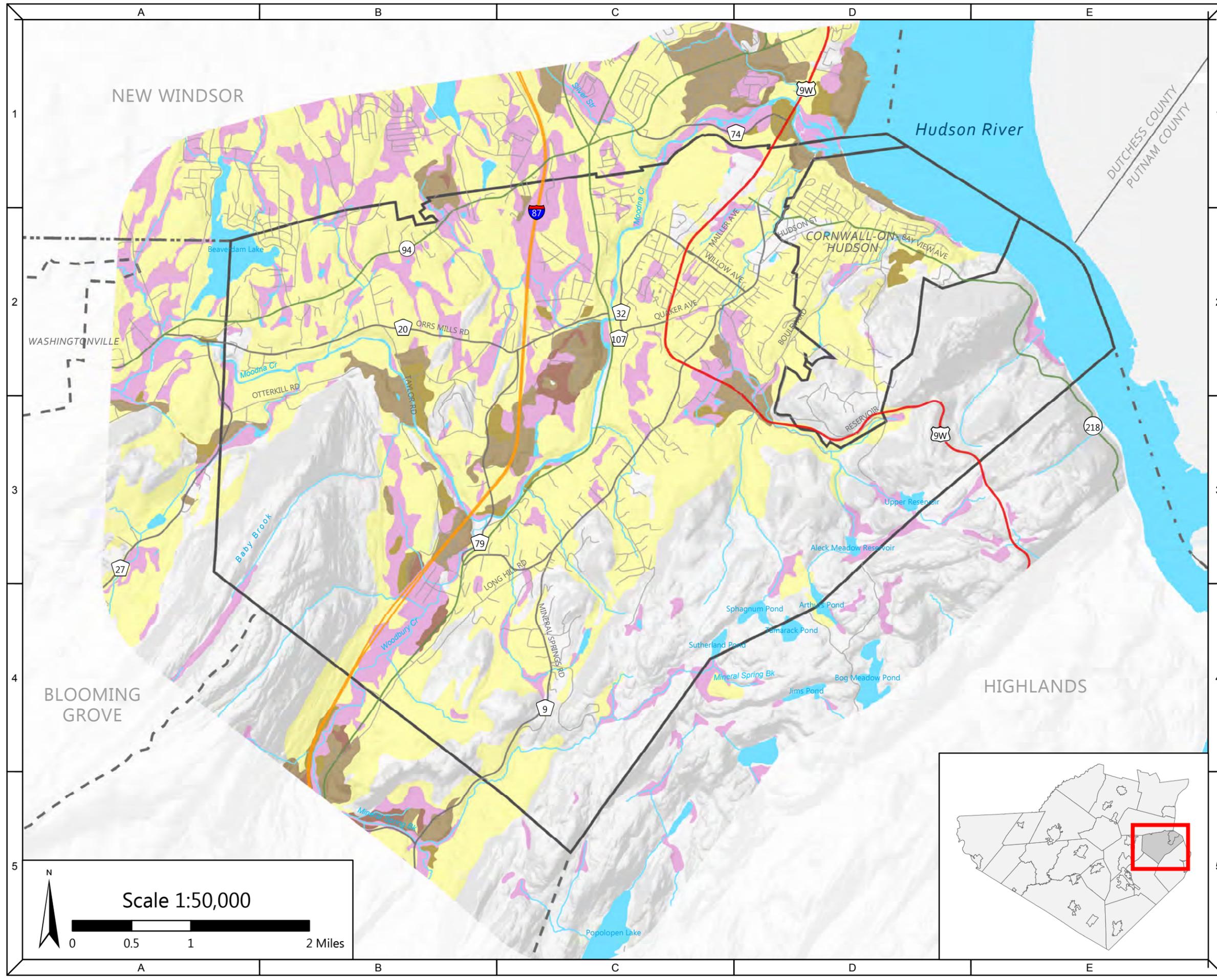
DATA SOURCES: New York State Dept. of Transportation, 2017; United States Geological Survey, 2017; New York State Dept. of Environmental Conservation, 2017; Orange County Dept. of Planning, 2018; Natural Resource Conservation Service, 2017; Scenic Hudson, 2017

Calcareous or potentially calcareous soils are soil units with reaction [pH] of greater than 6.5 in surface, subsoil, or substratum layers.

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NATURAL RESOURCES INVENTORY

Farmland Soils and  
 Agricultural Parcels

NYS Real Property System Classes

- 105 - Vacant Farmland
- 110 - Livestock and Products
- 112 - Dairy Products
- 113 - Cattle, Calves, Hogs
- 116 - Other Livestock
- 117 - Horse Farm
- 120 - Field Crops
- 151 - Apples, Peaches, Cherries, etc.

Farmland Soils

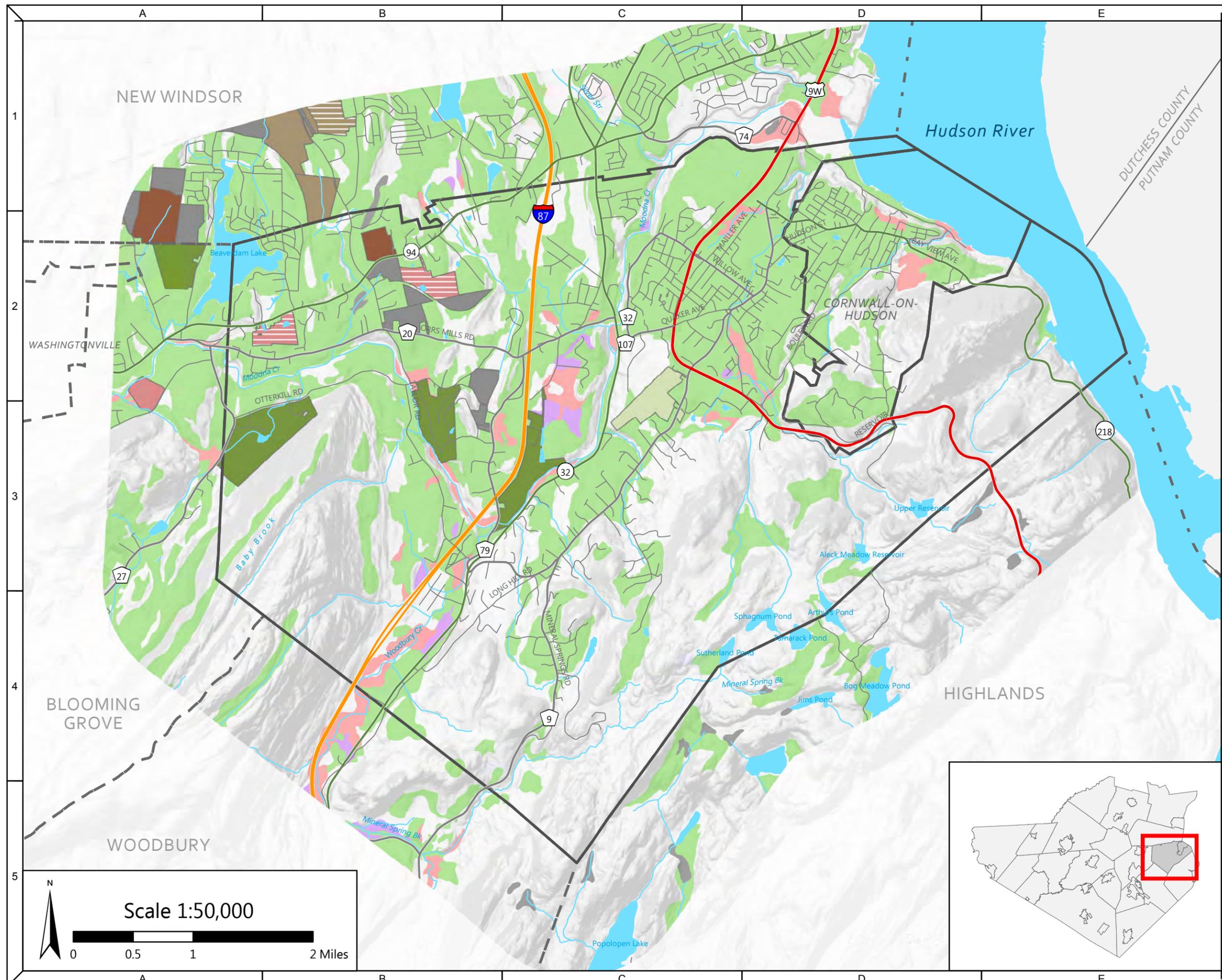
- Prime Farmland
- Prime Farmland If Drained
- Soils of Statewide Importance
- Black Dirt / Organic

Roads

- Interstate
- Federal Highway
- State Route
- County Road
- Local Road

Hydrology

- Water Bodies
- Streams

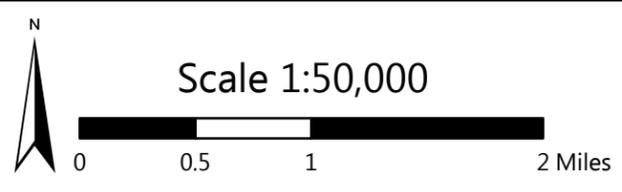
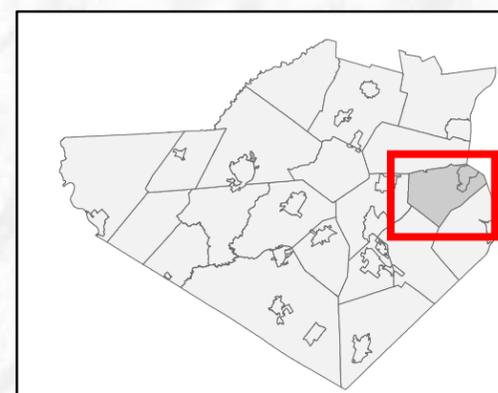


DATA SOURCES: New York State Dept. of Taxation and Finance, 2018; United States Geological Survey, 2017; New York State Dept. of Transportation, 2017; Orange County Dept. of Planning, 2017; New York State Dept. of Environmental Conservation, 2017

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 B. Freiman 6/20/2018

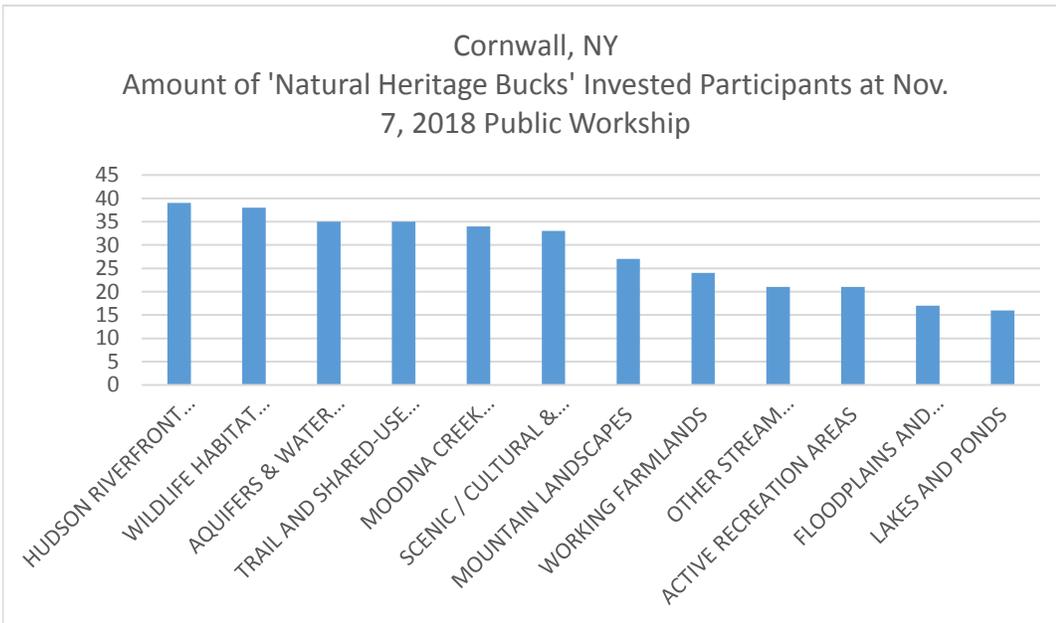
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## **APPENDIX B – SUMMARIZED SURVEY RESULTS**

Cornwall, NY

Natural Heritage Resource Area	Amount invested
HUDSON RIVERFRONT AREA	39
WILDLIFE HABITAT CORRIDORS	38
AQUIFERS & WATER SUPPLY	35
TRAIL AND SHARED-USE PATH CORRIDORS	35
MOODNA CREEK CORRIDOR	34
SCENIC / CULTURAL & HISTORIC LANDSCAPES	33
MOUNTAIN LANDSCAPES	27
WORKING FARMLANDS	24
OTHER STREAM CORRIDORS	21
ACTIVE RECREATION AREAS	21
FLOODPLAINS AND FLOODWAYS	17
LAKES AND PONDS	16





# Cornwall-Blooming Grove Natural Heritage Project Survey

Report to Hudson Highlands Land Trust

December 21, 2018



Photo by Daniel Case - [https://commons.wikimedia.org/wiki/File:Moodna\\_Viaduct\\_2](https://commons.wikimedia.org/wiki/File:Moodna_Viaduct_2)

By Karen Strong  
Principal, Strong Outcomes, LLC



## Summary

Two surveys were conducted to collect public input for the Cornwall-Blooming Grove Natural Heritage Project, one for each Town. The survey questions closely followed public forums hosted by each Town in November 2018. A total of 367 people responded to the surveys.

The overall highest rated open space resource in Blooming Grove was Aquifers and Water Quality. Nearly all respondents identified it as very important (96%, Table 1) and they invested more than twice as much in drinking water as they did in Trails and Shared Path Corridors, which was the next highest rated priority (Table 2). Schunnemunk State Park was the favorite place to visit in Blooming Grove (Table 3). Most respondents visited open spaces to recreate, including walking, hiking, hunting, fishing, and organized sports (Table 4).

The overall highest rated open space resource in Cornwall was also Aquifers and Water Quality. Slightly fewer people than in Blooming Grove identified it as very important (92%, Table 5). Survey respondents invested more than twice as much in drinking water as in the Moodna Creek Corridor, the next highest rated resource (Table 6). The respondents identified Hudson Riverfront as their favorite place to visit in Cornwall, with Black Rock Forest a close second (Table 7). Most respondents visited open spaces for various kinds of recreation, which was closely followed by aesthetic beauty and scenic views (Table 8).

## Survey Purpose

The Hudson Highlands Land Trust commissioned this survey for the Cornwall-Blooming Grove Natural Heritage Project. The Cornwall-Blooming Grove Natural Heritage Project will result in open space inventories for the Towns of Blooming Grove and Cornwall, and the Village of Cornwall-on-Hudson. The inventories will identify and prioritize open spaces that are important to the community.

This survey was intended to gather input from people who did not attend the public forums in November 2018. It will help the project partners understand what open space characteristics are important to people who live, work, and play in the Towns and Villages.

The Cornwall-Blooming Grove Natural Heritage Project is a partnership between the Hudson Highlands Land Trust and Orange County Land Trust, working with Behan Planning and Design, and the Conservation Advisory Councils of both towns. This Project has been funded in part by a grant from the New York State Environmental Protection Fund through the Hudson River Estuary Program of the State of New York State Department of Environmental Conservation.

## Process

The survey was developed using Survey Monkey. The surveys went live soon after the public forums on 11/7/18 and 11/14/18, and closely followed the format so the data could be combined.

It is impossible to replicate an interactive public forum experience in an online survey. The first set of questions asked about the importance of various natural resources in each Town and the Villages within them. To provide enough information about the resources for the survey respondents without overwhelming them, each question briefly described the resource in the Town and included a link to a relevant Natural Resource Inventory map.

In the abstract, most people highly value open space resources, so the next question asked about relative value of these resources. Behan Planning developed an exercise for the public forums where each participant had \$120 to distribute in \$10 increments to any of 12 open space resources they wished. I was able to replicate that question in Survey Monkey by using a multiple textbox question and using validation to allow only numerical responses and to require a fixed sum of \$120.

There were two open-ended questions about the three favorite parks, historic places, and natural areas that people like to go to and why they go there. Survey questions for each town are in the Appendices.

I worked closely with Hudson Highlands Land Trust Staff to develop an outreach plan to increase survey responses, which included draft email text and draft social media posts. The plan was implemented by the Hudson Highlands and Orange County Land Trusts and the Town Conservation Advisory Councils (CACs). The goal was 50 responses from each town, which was greatly exceeded.

Draft email text:

*Subject: Your opinion matters! Share your thoughts on Cornwall's Natural Heritage by Nov 30*

*Your input is needed for the Cornwall-Blooming Grove Natural Heritage Project! This online survey will gather input from people who did not attend the public workshop in Cornwall on Nov 7. Please take 10 minutes to share your thoughts about Cornwall's farms, parks, and natural areas.*

[TAKE THE SURVEY](#)

*Your input will help community leaders understand what kinds of open space resources are important to you. The Cornwall-Blooming Grove Natural Heritage Project will create open space inventories that will identify and prioritize open spaces that are important to the community and can be used in planning and education initiatives.*

*The Natural Heritage Project will build upon the [Natural Resource Inventory](#) work already completed in both towns.*

The survey responses will be added to the input collected at the public forums for use in developing the two open space inventories. The raw data will be provided to the land trusts and the CACs.

## Detailed Results for the Town of Cornwall and Village of Cornwall-on-Hudson

The Cornwall survey was open from 11/7/18 to 12/14/18. There was a total of 169 respondents; 95% of them live in Cornwall, 45% work there, and 88% play there (people could choose more than one). There were peaks in responses on 11/16 and 11/28, and smaller peaks on 11/18 and 12/12. The survey was extended from 12/1 to 12/14, and 40 additional responses were entered.

The average time spent on the survey was 9 minutes, and 91% finished it. Most of those who didn't finish answered questions 1-13 (93%) and 16 (95%) and skipped the open answer questions 14 (90%) and 15 (86%).

Table 5 shows the responses to questions 1-12. A majority of respondents said that most of the open space resources were very important to them, ranging from 40% for active recreation areas to 93% for aquifers and water supply. Table 6 shows how respondents prioritized open space resources relative to one another (See also Figure 2). Aquifers and Water Supply were the most important resource by far. Other Stream Corridors and Floodplains and Floodways were the lowest priority for survey respondents.

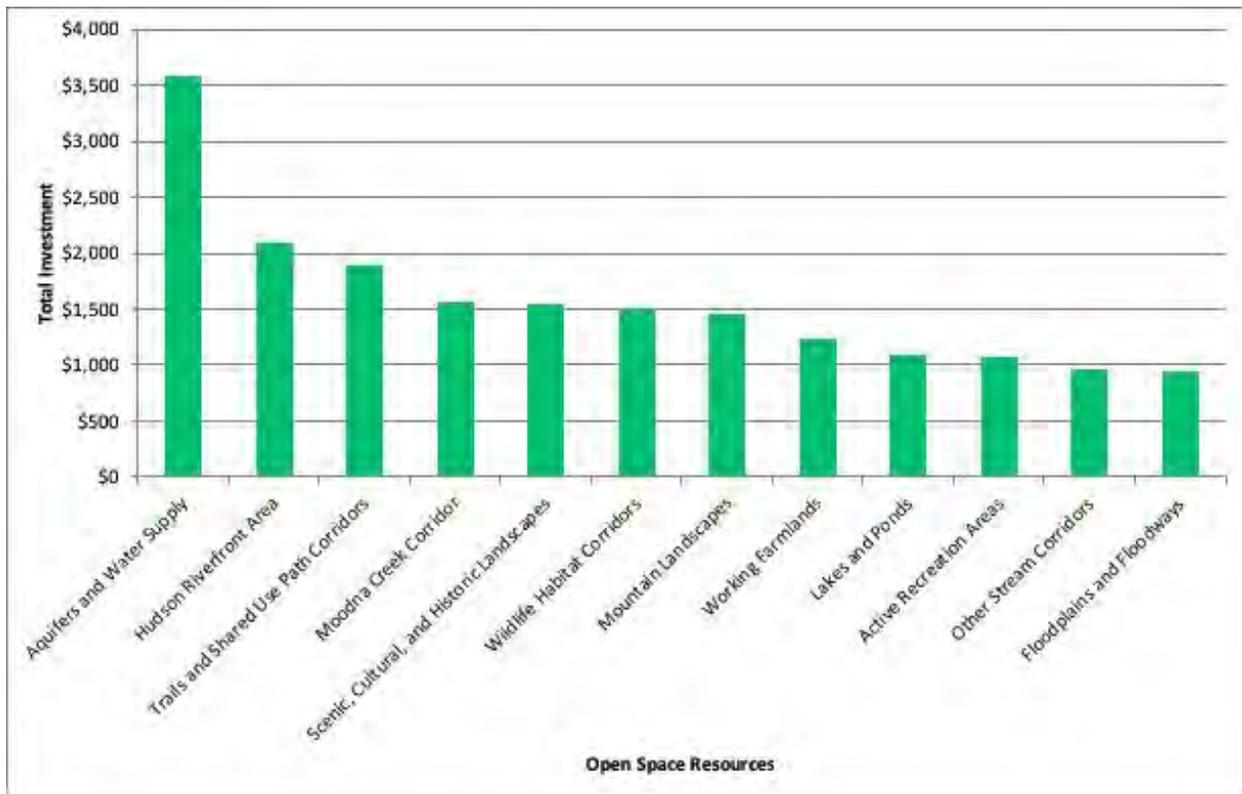
**Table 5. Cornwall Important Open Space Values**

Resource	Not at all important	Somewhat Important	Very Important
Aquifers and Water Supply	0%	7.10%	92.90%
Hudson Riverfront Area	0.59%	13.61%	85.80%
Mountain Landscapes	0.60%	14.29%	85.12%
Moodna Creek Corridor	0%	15.98%	84.02%
Wildlife Habitat Corridors	1.52%	15.68%	84.02%
Lakes and Ponds	3.06%	14.29%	82.65%
Scenic, Cultural, and Historic Landscapes	1.78%	15.98%	82.25%
Trails and Shared-Use Path Corridors	3.57%	17.86%	78.57%
Floodplains and Floodways	0.59%	22.49%	76.92%
Working Farmland	1.78%	23.76%	74.56%
Other Stream Corridors	0.60%	26.19%	73.21%
Active Recreation Areas	16.67%	42.86%	40.48%

**Table 6. Cornwall Relative Importance**

Open Space Value	Total Investment
Aquifers and Water Supply	\$3,591.00
Hudson Riverfront Area	\$2,098.00
Trails and Shared Use Path Corridors	\$1,887.00
Moodna Creek Corridor	\$1,567.00
Scenic, Cultural, and Historic Landscapes	\$1,544.00
Wildlife Habitat Corridors	\$1,499.00
Mountain Landscapes	\$1,461.00
Working Farmlands	\$1,241.00
Lakes and Ponds	\$1,094.00
Active Recreation Areas	\$1,068.00
Other Stream Corridors	\$958.00
Floodplains and Floodways	\$952.00

**Figure 2. Cornwall Respondent’s Willingness to Invest in Open Space Resources**



Questions 14 and 15 asked people to identify the top three places they like to visit and why they like to go there. I combined and tallied all of the responses. Various parks and places on the Hudson Riverfront were the most popular, closely followed by Black Rock Forest (Table 7). The most common reasons people visit these places is to recreate and enjoy the aesthetic beauty and scenic views (Table 8). Many people also mentioned that they go to places that are easy to get to. These results may appear to contrast with the results in Table 6. However, they aren't directly comparable. In that question, recreation was covered in more than one category. And the highest ranked value was Aquifers and Water Supply, which include places you don't necessarily visit.

**Table 7. Cornwall Respondent's Top Places to Visit**

Favorite Park, Historic Site, or Natural Area	Number of responses
Hudson Waterfront (including Cornwall Landing, Donahue Park)	102
Black Rock Forest	93
Storm King (State Park and Art Center)	74
Schunnemunk Mountain State Park	24
Hudson Highlands Nature Museum	18

**Table 8. Cornwall Respondents Reasons to Visit Favorite Places**

Why you visit favorite places	Percent of responses
Recreation (walking, hiking, biking, hunting, fishing, sports)	34%
Aesthetic (scenery, views)	28%
Existence (near my home, sense of place, relaxation)	18%
Biological Diversity (wildlife, nature)	6%
Cultural and Historic (historical resources, art, way of life)	6%
Social (family fun, interacting with friends, community)	5%
Learning (kids in nature, school trips)	2%
Wilderness	1%

## Detailed Results for the Town of Blooming Grove, and the Villages of Washingtonville and South Blooming Grove

The Blooming Grove survey was open from 11/14 to 12/14. There was a total of 192 respondents; 90% of them live in Blooming Grove, 36% work there, and 80% play there (people could choose more than one). There were peaks in responses on 11/19 and 11/29, and smaller peaks on 11/25 and 12/2. The survey was extended from 12/1 to 12/14, and 38 additional responses were entered.

The average time spent on the survey was 8 minutes and 27 seconds, and 81% finished the survey. Most of those who didn't finish answered questions 1-13 (93%) and 16 (81%) and skipped the open answer questions 14 (61%) and 15 (56%).

Table 1 shows the responses to questions 1-12. A majority of respondents said that all the open space resources were very important to them, ranging from 56.33% for active recreation areas to 96.45% for Aquifers and Water Supply. Table 2 shows how respondents prioritized open space resources relative to one another (See also Figure 1). Aquifers and Water Supply were the most important resource by far. Active Recreation Areas and Other Stream Corridors were the lowest priority for survey respondents.

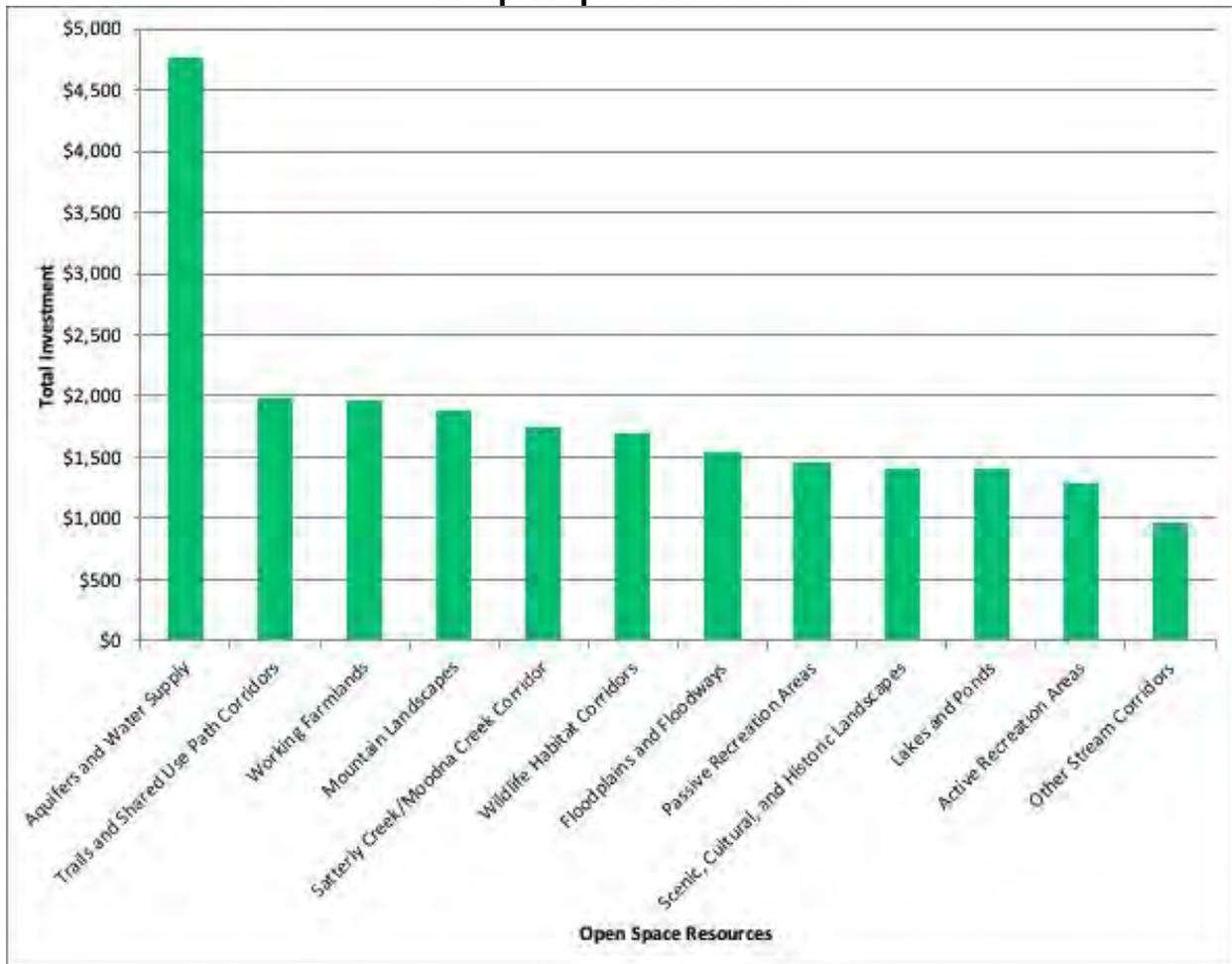
**Table 1. Blooming Grove Important Open Space Resources**

Resource	Not at all important	Somewhat Important	Very Important
Aquifers and Water Supply	0.51%	3.05%	96.45%
Mountain Landscapes	1.02%	8.16%	90.82%
Passive Recreation Areas	3.03%	10.66%	87.31%
Working Farmland	1.02%	12.18%	86.80%
Wildlife Habitat Corridors	1.52%	11.68%	86.80%
Scenic, Cultural, and Historic Landscapes	1.03%	12.31%	86.67%
Satterly Creek/Moodna Creek	1.59%	13.78%	84.69%
Floodplains and Floodways	0.51%	14.87%	84.62%
Trails and Shared-Use Path Corridors	2.05%	14.36%	83.59%
Lakes and Ponds	3.06%	14.29%	82.65%
Other Stream Corridors	2.03%	27.41%	70.56%
Active Recreation Areas	10.66%	32.99%	56.35%

**Table 2. Blooming Grove Relative Importance**

Open Space Resource	Total Investment
Aquifers and Water Supply	\$4,757.00
Trails and Shared Use Path Corridors	\$1,975.00
Working Farmlands	\$1,974.00
Mountain Landscapes	\$1,875.00
Satterly Creek/Moodna Creek Corridor	\$1,747.00
Wildlife Habitat Corridors	\$1,687.00
Floodplains and Floodways	\$1,543.00
Passive Recreation Areas	\$1,460.00
Scenic, Cultural, and Historic Landscapes	\$1,414.00
Lakes and Ponds	\$1,404.00
Active Recreation Areas	\$1,287.00
Other Stream Corridors	\$957.00

**Figure 1. Blooming Grove Respondent’s Willingness to Invest in Open Space Resources**



Questions 14 and 15 asked people to identify the top three places they like to visit and why they like to go there. I combined and tallied all of the responses. Schunnemunk State Park was the most popular place by far (Table 3). The most common reason people visit these places is to recreate (Table 4). Many people also mentioned scenic views and ease of access. These results may appear to contrast with the results in Table 2. However, they aren't directly comparable. In that question, recreation was covered in more than one category. And the highest ranked value was Aquifers and Water Supply, which include places you don't necessarily visit.

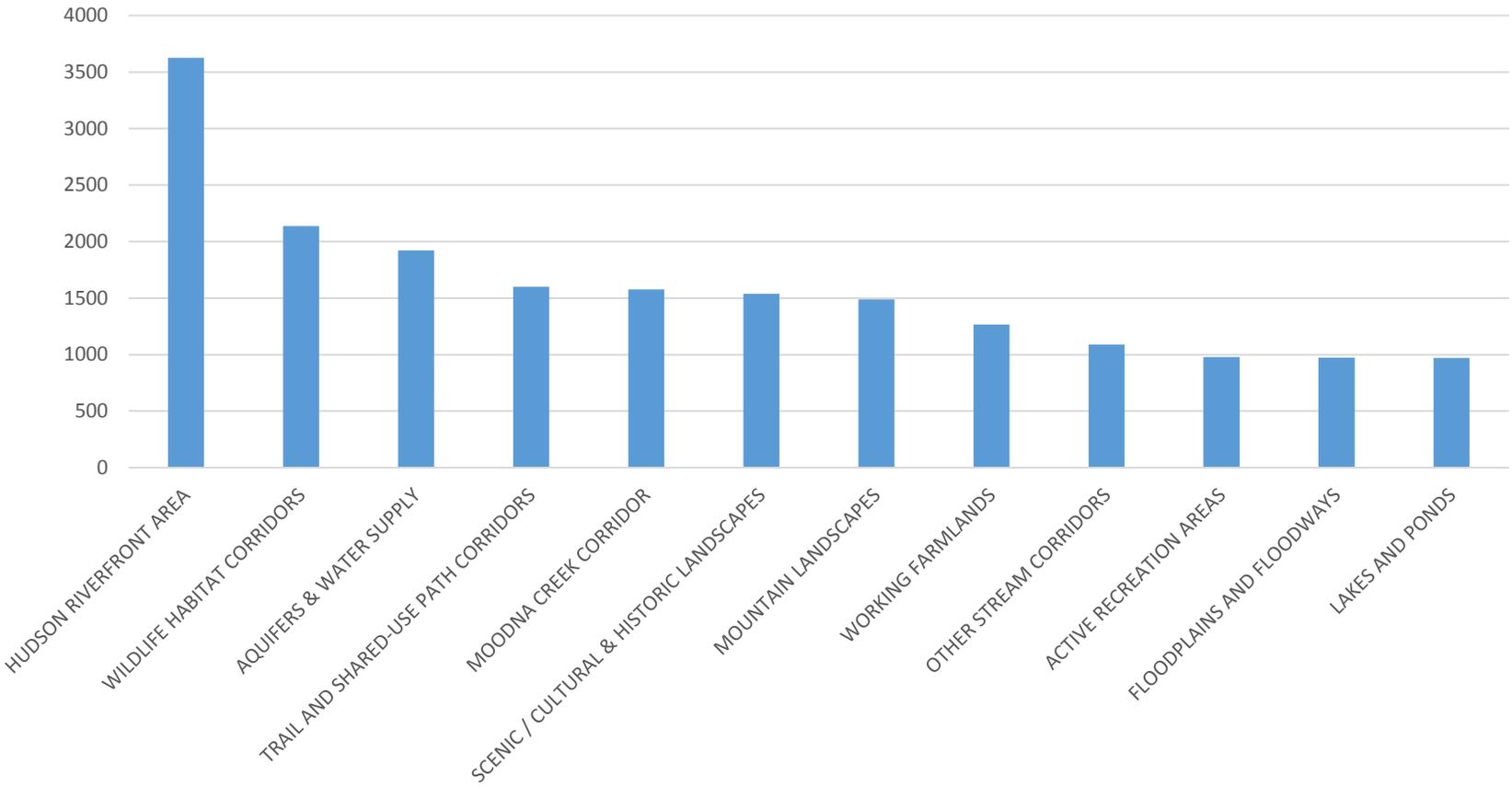
**Table 3. Blooming Grove Respondent's Top Places to Visit**

Favorite Park, Historic Site, or Natural Area	Number of responses
Schunnemunk State Park	50
Moodna Creek	19
Heritage Trail	16
Storm King	11
May's Field	9

**Table 4. Blooming Grove Respondents Reasons to Visit Favorite Places**

Why you visit favorite places	Percent of responses
Recreation (walking, hiking, biking, hunting, fishing, sports)	42%
Aesthetic (scenery, views)	21%
Existence (near my home, sense of place, relaxation)	15%
Cultural and Historic (historical resources, art, way of life)	8%
Biological Diversity (wildlife, nature)	5%
Social (family fun, interacting with friends, community)	5%
Learning (kids in nature, school trips)	1%
Wilderness	1%

Input From Participants  
Nov. 7, 2018 Public Workshop Combined with Online Survey Results



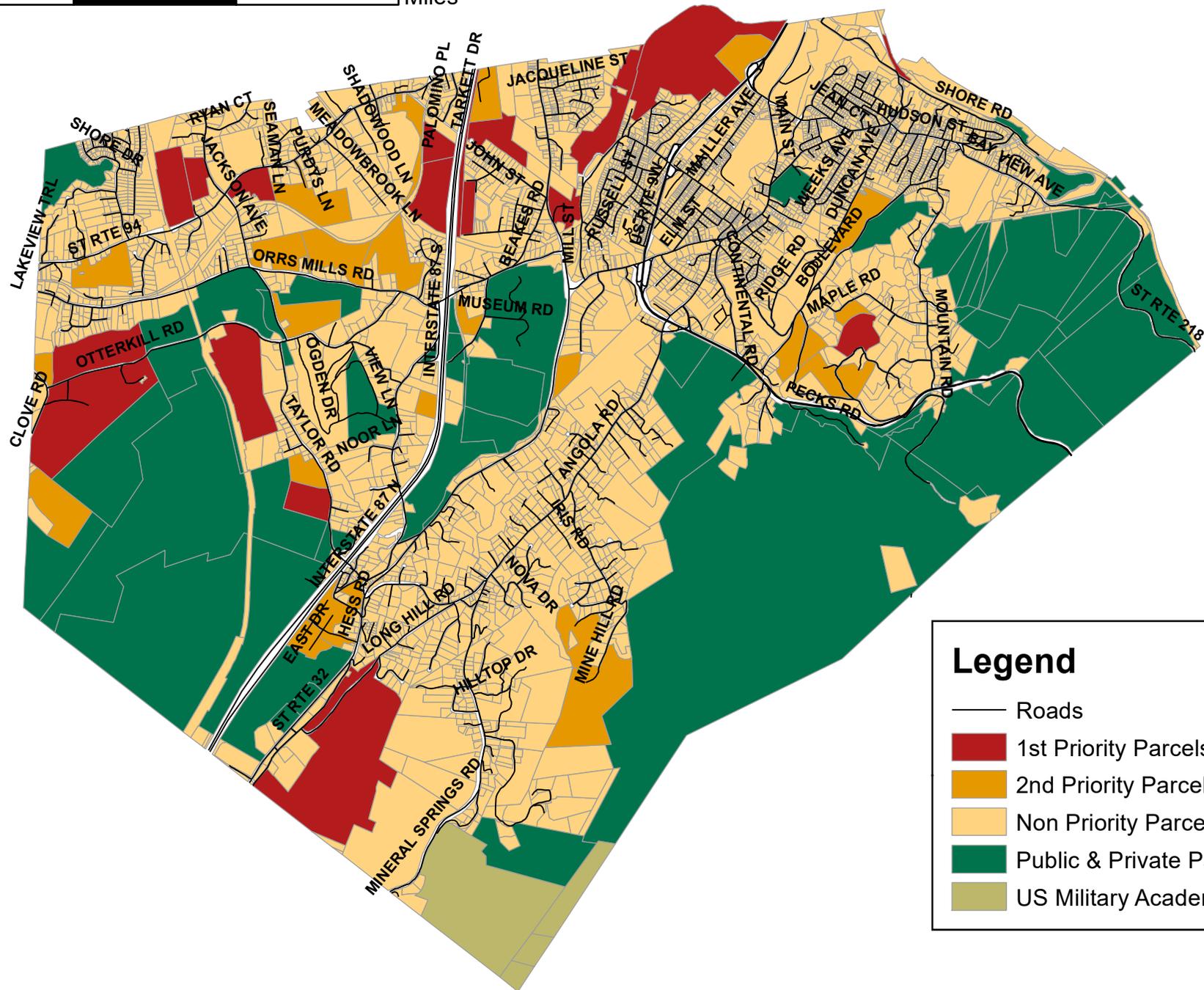
**APPENDIX C – Scenic Priority Parcels Map**

**Prepared for the Town of Cornwall Conservation Advisory Council by Cornell University – April 2019**

# COMPOSITE MAP OF PRIORITY PARCELS



0 0.5 1 2 3 Miles



**Legend**

- Roads
- 1st Priority Parcels
- 2nd Priority Parcels
- Non Priority Parcels
- Public & Private Parks, Preserves
- US Military Academy

**APPENDIX D – PRIORITY AREAS MAP**



- Tax Parcels
- Conserved Land
- Village Boundary
- Surface Water
- Rivers and Streams

Area Score

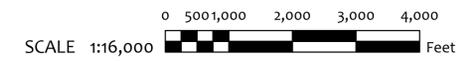
- Highest Scoring
- Lowest Scoring

This map was created for the Cornwall-Blooming Grove Open Space Inventories project. This Project has been funded in part by a grant from the New York State Environmental Protection Fund through the Hudson River Estuary Program of the New York State Department of Environmental Conservation.



Map prepared by Rick Lederer-Barnes, April 2019

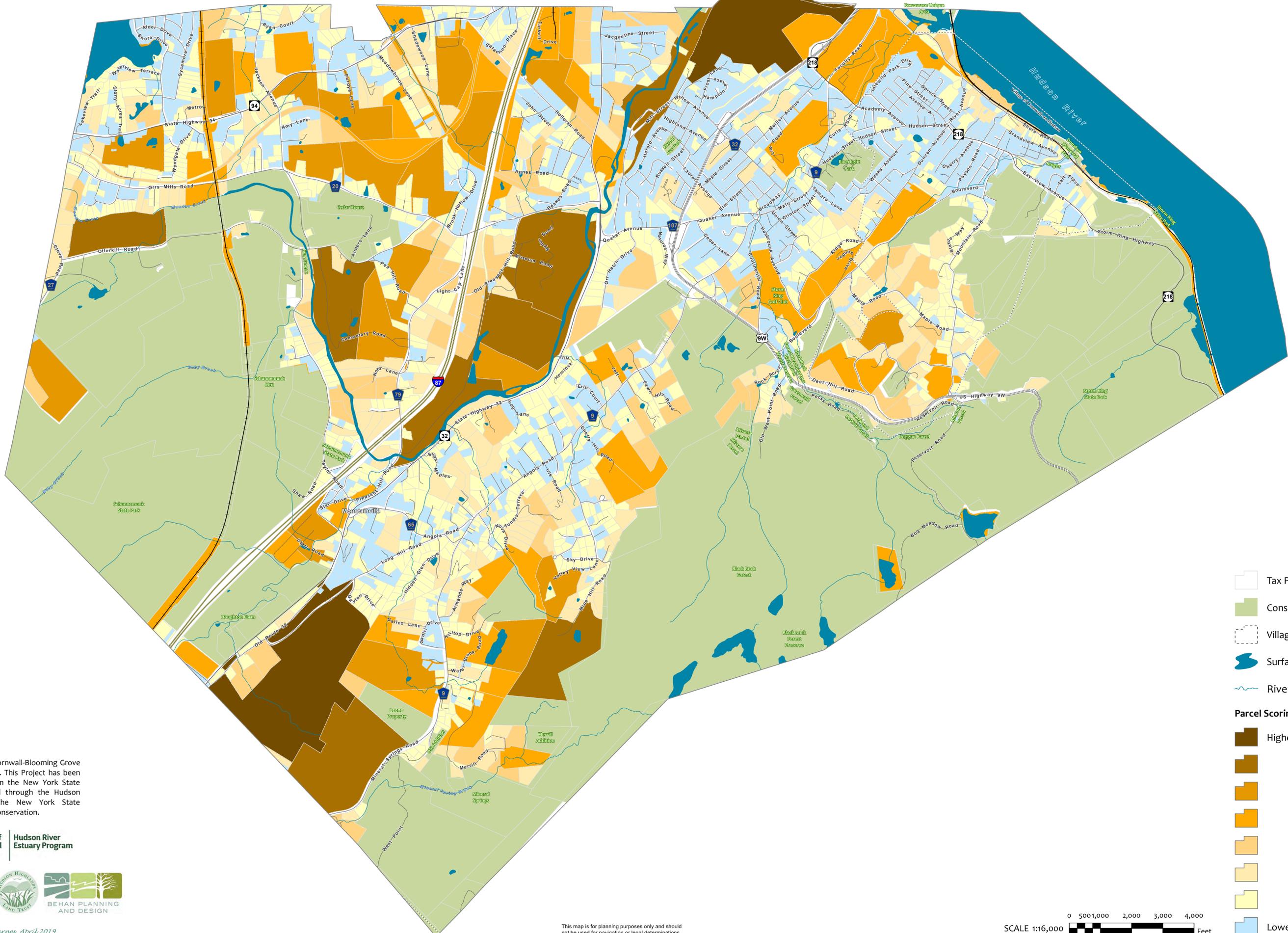
This map is for planning purposes only and should not be used for navigation or legal determinations.



**APPENDIX E – Parcel Scoring Map**

# Cornwall-Blooming Grove Open Space Inventories Project

# Cornwall Parcel Scoring



- Tax Parcels
- Conserved Land
- Village Boundary
- Surface Water
- Rivers and Streams

**Parcel Scoring**

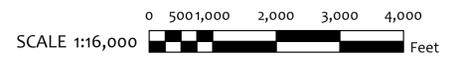
- Highest Scores
- 
- 
- 
- 
- 
- Lowest Scores

This map was created for the Cornwall-Blooming Grove Open Space Inventories project. This Project has been funded in part by a grant from the New York State Environmental Protection Fund through the Hudson River Estuary Program of the New York State Department of Environmental Conservation.



Map prepared by Rick Lederer-Barnes, April 2019

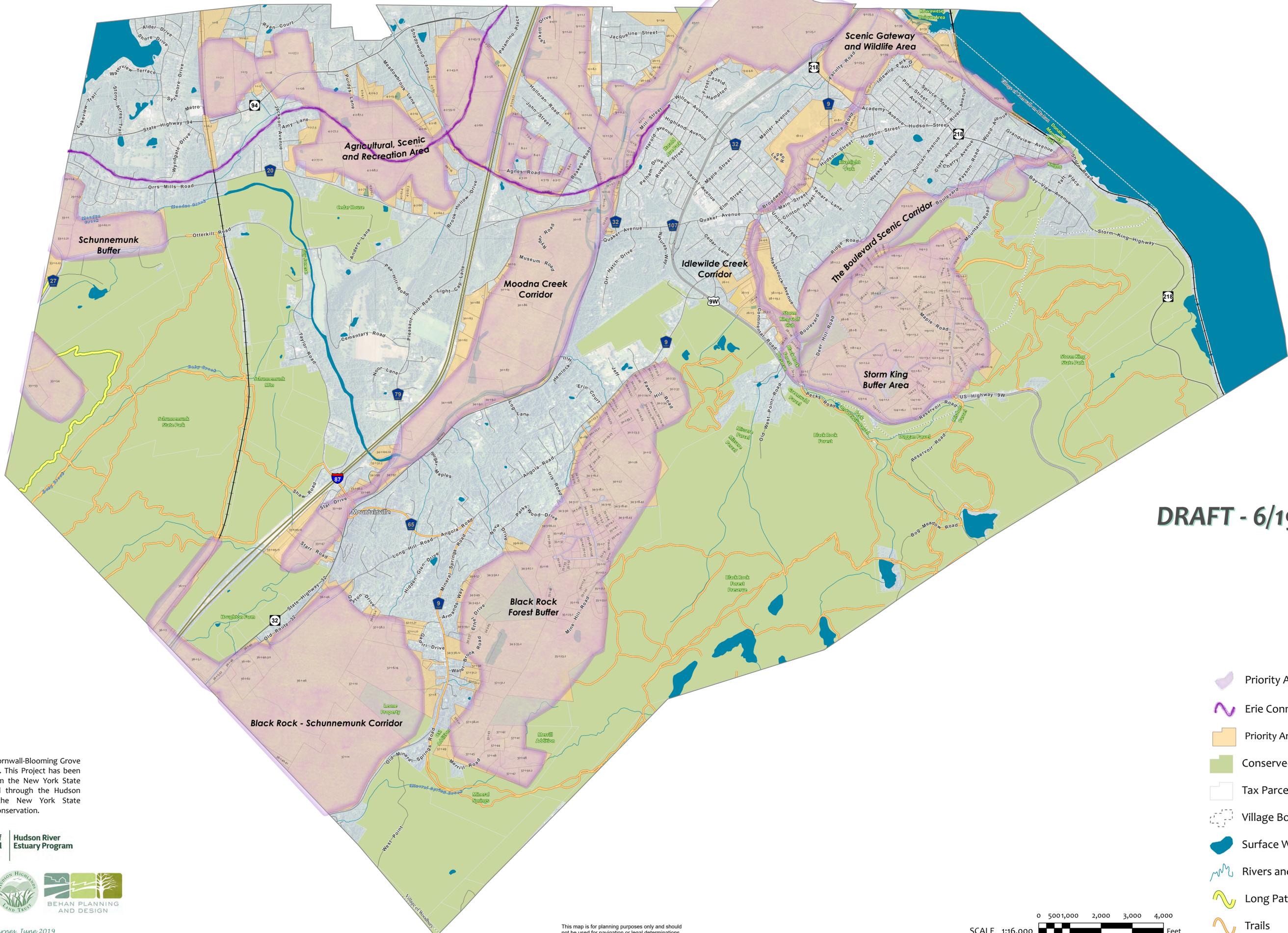
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**APPENDIX F – Cornwall Priority Areas Concept Map**

# Cornwall-Blooming Grove Natural Heritage Project

# Cornwall Priority Areas



**DRAFT - 6/19/2019**

-  Priority Areas
-  Erie Connector Corridor
-  Priority Area Parcels
-  Conserved Land
-  Tax Parcels
-  Village Boundary
-  Surface Water
-  Rivers and Streams
-  Long Path
-  Trails

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Map prepared by Rick Lederer-Barnes, June 2019

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