



Department of
Environmental
Conservation

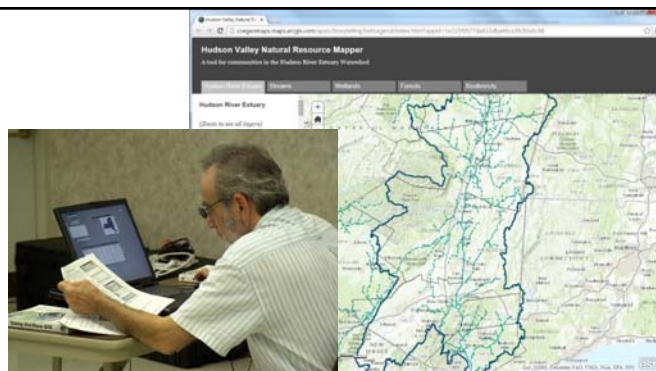


Cornell University



Online Tools for Environmental Review

CDRPC Training – March 31, 2016



Ingrid Haeckel

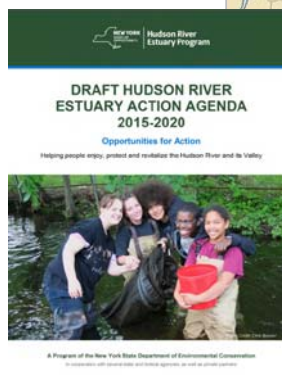
NYSDEC Hudson River Estuary Program and Cornell University

The Hudson River Estuary Program

Working to achieve
key benefits:

- clean water
- resilient communities
- vital estuary ecosystem
- fish, wildlife, and habitat
- natural scenery
- education, access,
recreation, and inspiration

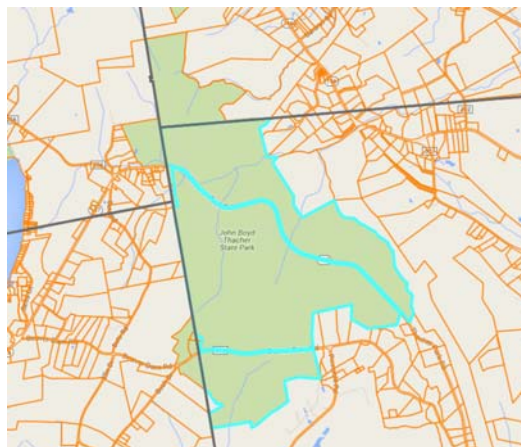
HVCC



The Task:

You're a member of the municipal planning board and are reviewing a proposal for a major residential subdivision.

In the early stages of the planning board's review, you are using available information to understand the natural features and environmental constraints on the site that might be relevant to subdivision design.



Where to find information:

- Aerial imagery, topographic maps, etc.
- Local inventories, plans, and studies
- County or regional inventories, plans, and web maps
- Statewide maps and databases
 - NYSDEC
 - NY Natural Heritage Program



Photo by Laura Heady

Online mapping tools summarized today:

1. NYSDEC EAF Mapper
2. NYSDEC Environmental Resource Mapper
3. NYSDEC Nature Explorer
4. Hudson Valley Natural Resource Mapper
5. USDA Web Soil Survey
6. Scenic Hudson Sea Level Rise Mapper
7. County Web Maps

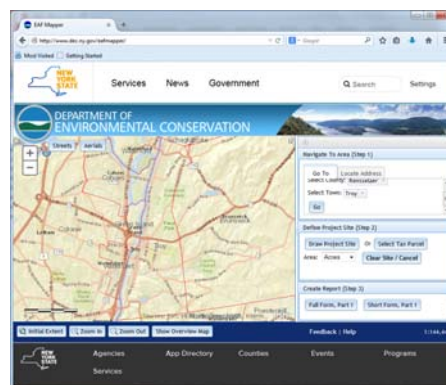


NYSDEC Environmental Assessment Form Mapper

Helps complete Part 1 of EAFs

For short form:

- proximity to Critical Environmental Areas
- State/National Register of Historic Places
- regulated wetlands or waterbodies
- listed species or associated habitats
- floodplains
- hazardous waste remediation sites



Remember that the EAF is a model.

Databases are incomplete. Ask questions!



NYSDEC EAF Mapper

- search by address, municipality, or zoom manually
- draw project site or select tax parcel
- EAF part 1 generated for download (enable pop-ups)
- Summary report of answers provided
- Links to online EAF workbooks

Department of Environmental Conservation

Recreation Nature Prevent & Control Pollution Regulatory News & Learning Search

Home » Permit, License, Registration » SEQR » Environmental Assessment Form (EAF) Workbooks » Part 1 - Project Information (SEAF) » Q. 15, Short EAF (Part 1) Endangered / Threatened Species

Q. 15, Short EAF (Part 1) Endangered / Threatened Species

Short Environmental Assessment Form Workbook

Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?

Background Information

Threatened and endangered species are protected by both State and federal laws. These species, along with the habitats that support them are considered sensitive resources. This question asks the applicant to identify whether any threatened or endangered species (animals) and their associated habitats are present on the project site.

Answering the Question

The answer to this question will be automatically inserted on the pdf generated by the EAF Mapper. If endangered or threatened species or their associated habitats are known to be within the boundaries of the project site, the EAF Mapper will check "yes" on a PDF of the SEAF. If "yes" is returned for Question 15, then applicants should investigate further, guided by the instructions below, to identify what species are known to be present. If the applicant or project sponsor believes the answer filled out by the EAF Mapper is incorrect, supplemental information should be provided to the reviewing agency that explains that discrepancy.

If there are no known endangered or threatened species or associated habitats located within the project boundary, the EAF Mapper will check "no" on the form for you.

If the EAF Mapper is not used to answer this question, it does not mean that answering the question requires completion of a site-specific wildlife or plant inventory. There are many sources of already available information that you can easily access to find out whether any threatened or endangered species and their habitats are found on your project site. In order to answer this question, you will need to access the DEC website to get this information. The following links will be helpful sources of information:

PDF Help
For help with PDFs on this page, please call 518-402-9167.

Contact for this Page
NYSDEC
Division of Environmental Permits
4th Floor
625 Broadway
Albany, NY 12233-1750
518-402-9167
Send us an email

This Page Covers
All of New York State

Initial findings about J.B. Thacher State Park from the EAF Mapper:

- Wetlands present
- Class C stream
- Unique geologic features
- Not within FEMA-mapped floodplain
- On/near a principal aquifer
- Significant natural communities mapped on site
- Federal or NYS threatened/endangered species or habitat
- Archeological sensitive area ... and more



Photo by NYSDEC



Department of Environmental Conservation

Considerations when reviewing automated EAFs ... or, when “no” may really mean “unknown”

- Wetland maps and aerial photos can indicate drainage data
- Stream maps and topographic maps can indicate drainage data
- Floodplain maps can indicate drainage data
- Rare species records. NYNHP
- There is no data



Photo by Laura Heady



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Other Considerations:

- Habitat connectivity on- and off-site
- Riparian and wetland vegetated buffers
- Unlisted rare plants or animals (SGCN, NYNHP-tracked or regionally rare)
- Areas at risk of sea level rise
- Features of local concern/ significance documented in inventories or plans
 - *Don't stop at the automated EAF. Use additional tools and resources to gather information!*



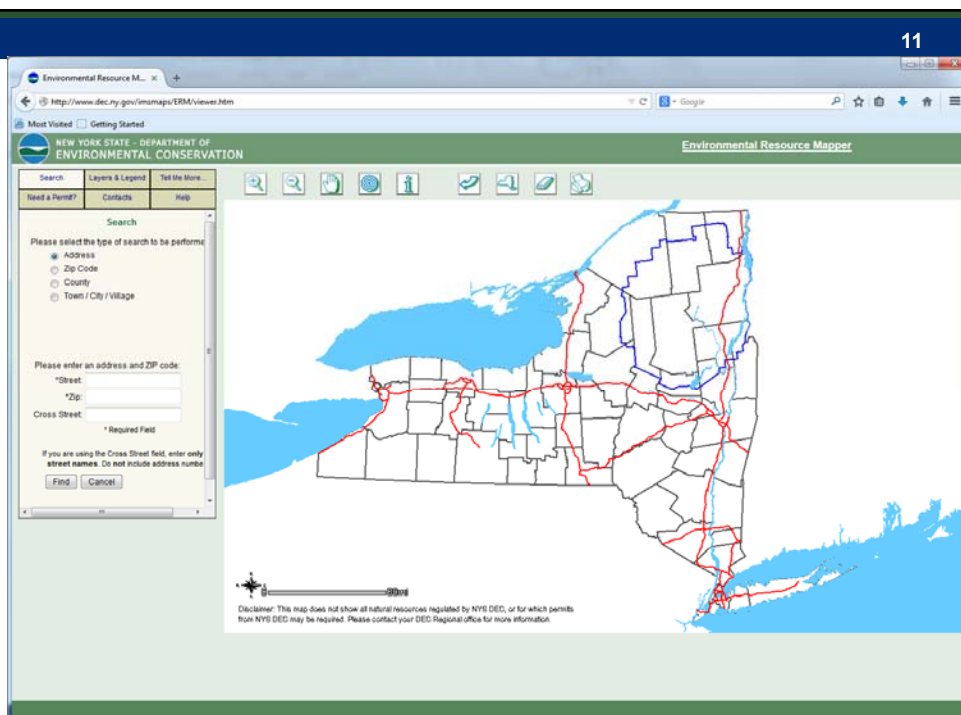
Photo by Ingrid Haeckel



Photo by Laura Heady

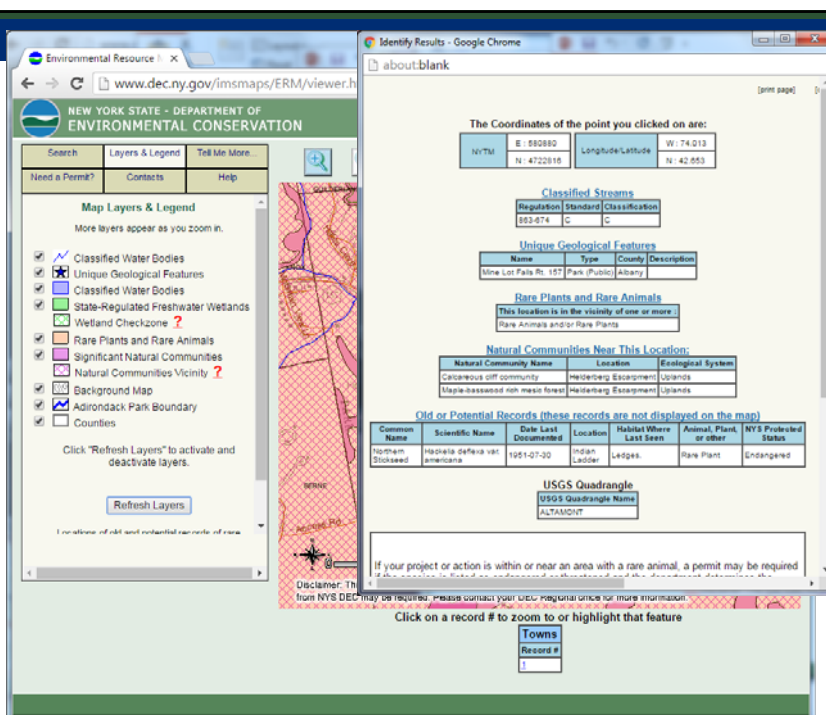
NYSDEC Environmental Resource Mapper

search by
address, zip
code,
municipality, or
zoom manually



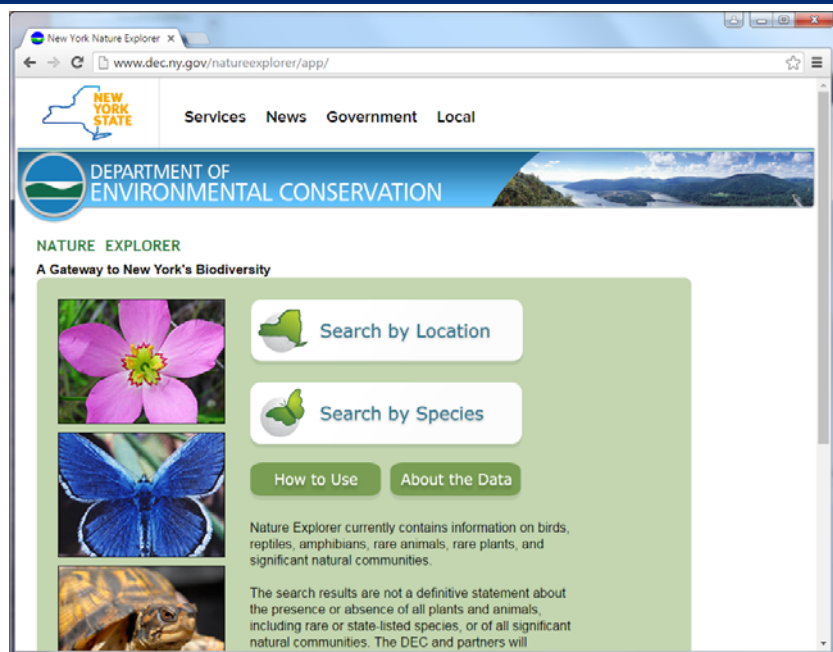
NYSDEC Environmental Resource Mapper

- classified streams and waterbodies
- NYS regulatory freshwater wetlands and wetland check zones
- unique geological features
- rare plants and rare animals; historical records
- natural communities



NYSDEC Nature Explorer

search by municipality, county, watershed, area of interest, or species



NYSDEC Nature Explorer

- natural communities
- generalized areas of importance for rare plants and animals
- list of rare species and natural communities with protection status, conservation rank, and links to conservation guidance

**be aware of exclusions

Common Name	Scientific Name	Subgroup	Distribution Status	Year Last Documented	Protection Status	Conservation Rank
					State	Federal
Town: New Scotland						
Plant: Flowering Plants						
☐ Carey's Smartweed	(<i>Persicaria careyi</i>)	Other Flowering Plants	Historically Confirmed	1930	Endangered	\$1S2 G4
☐ Cloud Sedge	(<i>Carex haydenii</i>)	Sedges	Historically Confirmed	1926	Endangered	\$1 G5
☐ Northern Stickseed	(<i>Thlasia deflexa</i> var. <i>americana</i>)	Other Flowering Plants	Historically Confirmed	1951	Endangered	\$1 G5T5
☐ Northern Wild Comfrey	(<i>Cynoglossum virginianum</i> var. <i>boreale</i>)	Other Flowering Plants	Historically Confirmed	1907	Endangered	\$1S2 G5T4T5
☐ Smooth Tick-trefoil	(<i>Desmodium laevigatum</i>)	Other Flowering Plants	Historically Confirmed	1928	Endangered	\$H G5
☐ Sweet Collards	(<i>Petasites frigidus</i> var. <i>palmatus</i>)	Asters, Goldenrods and Daisies	Recently Confirmed	2001	Endangered	\$1 G5T5
Plant: Ferns and Fern Allies						
☐ Smooth Cliff Brake	(<i>Pellaea glabella</i> ssp. <i>glabella</i>)	Ferns	Recently Confirmed	2012	Threatened	\$2 G5T5
Plant: Mosses						
☐ Small Mousetail Moss	(<i>Myurella julacea</i>)	Other Mosses	Recently Confirmed	2005		\$2 G5
Natural Community: Uplands						
☐ Appalachian Oak-Hickory Forest	(<i>Appalachian oak-hickory forest</i>)	Forested Uplands	Recently Confirmed	2001		\$4 G4G5
☐ Calcareous Cliff Community	(<i>Calcareous cliff community</i>)	Open Uplands	Recently Confirmed	1999		\$3 G4

NYNHP Conservation Guides



The NY Natural Heritage Program enables and enhances conservation of the state's biodiversity by delivering high-quality information from field inventories, expert interpretation, and the most comprehensive database on New York's distinctive biodiversity. The following conservation guides are designed to help land managers, decision-makers, planners, scientists, consultants, and the interested public better understand the rare species and natural communities that characterize New York. Funding from the Hudson River Estuary Program made the initial development of these guides possible.

Search Guides

 Advanced Search

Additional Links
 Rarity Rank Definitions
 Community System Descriptions
 Key to Systems and Subsystems
 Acknowledgements
 About Us



Animal Guides



Plant Guides



Community Guides

www.guides.nynhp.org

Calcareous Cliff Community

System: Terrestrial
Subsystem: Open Uplands
State Protection: Not Listed
Federal Protection: Not Listed
State Rarity Rank: S3
Global Rarity Rank: G4

Did you know?
 Cliff communities can harbor some of the oldest trees in the state. Because of their inaccessibility, the vegetation at these sites is often left undisturbed. In addition, the trees that reside on cliffs grow under stressful conditions, including drought, high wind, and low nutrient availability, often making them stunted, knobby, and undesirable for commercial lumber. The small size of these trees can be deceiving. Studies of the Niagara Escarpment, which extends from New York into Ontario, Canada, have found northern white cedar trees (*Thuja occidentalis*) that are 500 to 1000 years old!

State Ranking Justification
 There are several hundred occurrences statewide. Some documented occurrences have good viability and many are protected on public land or private conservation land. This community is limited to the calcareous regions of the state, and there are several large, high quality examples. The current trend of this community is probably stable for occurrences on public land, or declining slightly elsewhere due to moderate threats that include mineral extraction, recreational overuse, and invasive species.

Short-term Trends
 The number and acreage of calcareous cliffs in New York have probably declined slightly in recent decades as a result of mineral extraction and other development.

Request Natural Heritage Program Data: NaturalHeritage@dec.ny.gov

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request Natural Heritage Data

New York Natural Heritage makes its data available to inform biodiversity conservation, natural resource management, land protection, land use decisions, and environmental assessment. If you need information on whether a specific proposed development, project, or activity may potentially impact rare or listed species or significant natural communities, see How to Request Information for a Project Site below. If you are engaged in regional or municipal planning, natural resource inventory or management, open space inventory or protection, environmental or biodiversity conservation, or scientific research, please contact NY Natural Heritage at NaturalHeritage@dec.ny.gov or (518) 402-8944.

Note that information regarding the locations of rare species is considered sensitive. The distribution of information which identifies the locations of rare species or their habitats may lead to the collection or disturbance of the animals and plants at those locations. NYSDEC has the legal authority, under New York State Environmental Conservation Law, to restrict access to such information, and has adopted a policy regarding the release of information compiled by the New York Natural Heritage Program. Under this policy, information on the locations and identities of rare species is provided at the level of detail necessary to enable fully informed decision-making while protecting the sensitive resources. Information may be provided to the requesting party for its internal use, with restrictions on the public display and distribution of the data or products derived from it.

Contact for this Page
 NYSDEC-OFWMR
 NY Natural Heritage Program
 625 Broadway, 5th Floor
 Albany, NY 12233-4757
 518-402-8935

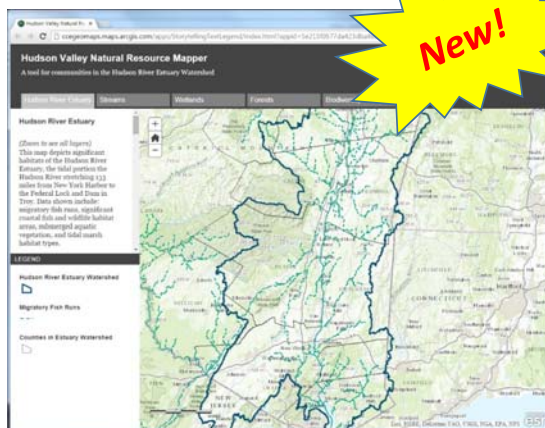
This Page Covers
 All of New York State

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Hudson Valley Natural Resource Mapper

Interactive thematic maps:

- Estuary
- Streams
- Wetlands
- Forests
- Biodiversity



www.hudson.dnr.cals.cornell.edu/mapper

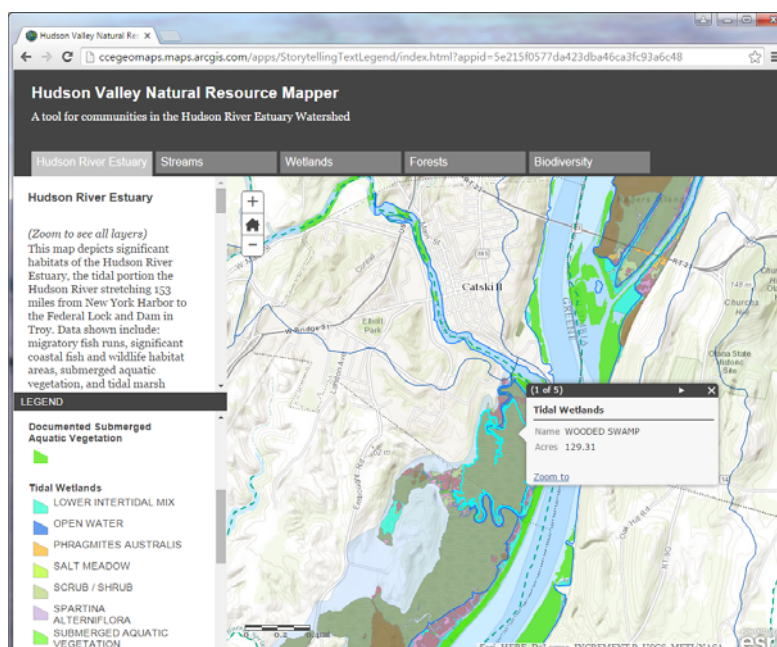


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Estuary Map

Includes:

- Migratory fish habitat
- Submerged aquatic vegetation (SAV)
- Tidal wetlands
- Significant Coastal Fish and Wildlife Habitat Areas

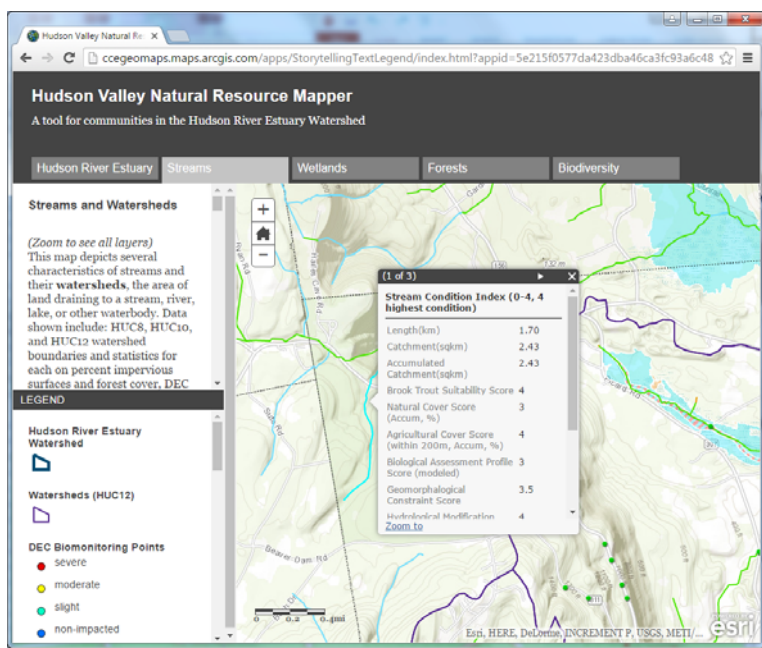


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Streams Map

Includes:

- Watersheds
- Forest & impervious cover
- Stream Condition Index
- Dams and culverts
- Biologically important barriers
- Water quality monitoring
- FEMA flood zones

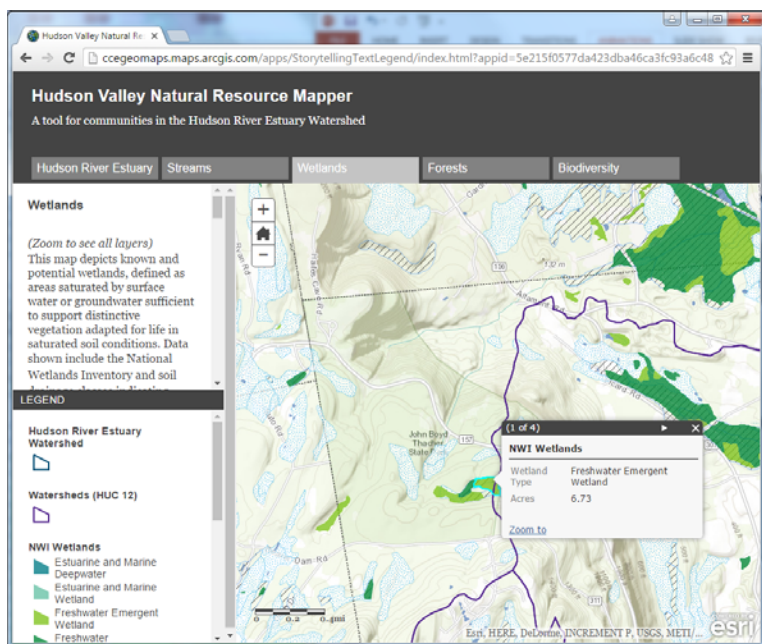


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Wetlands Map

Includes:

- National Wetlands Inventory (NWI)
- Wetland soils:
 - *Probable wetlands*: poorly and very poorly drained
 - *Possible wetlands*: somewhat poorly drained

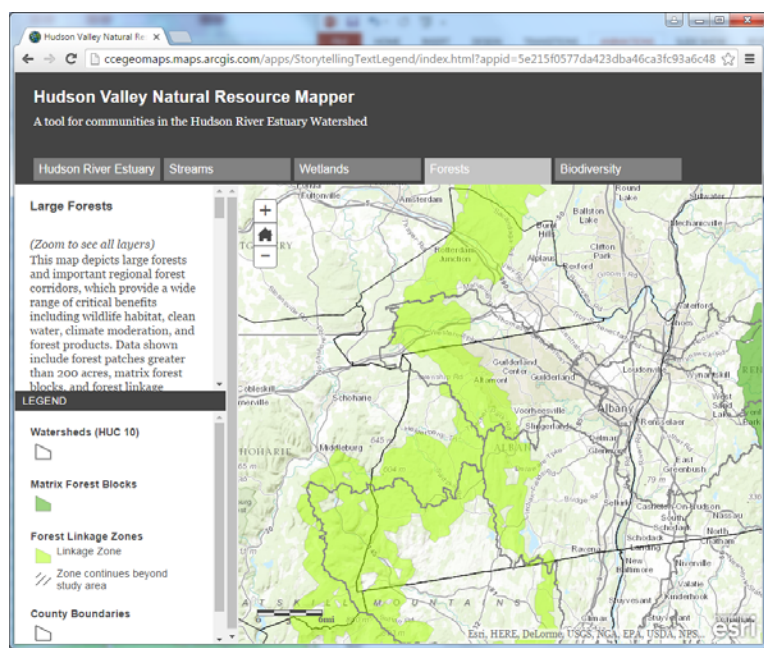


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Forest Map

Includes:

- Large forest patches >200 ac
- Matrix forest blocks
- Forest linkage zones

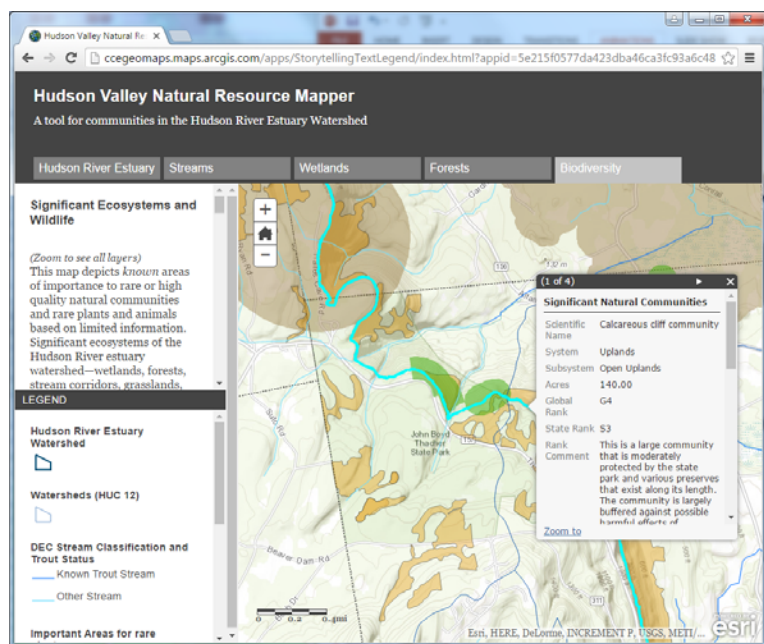


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Biodiversity Map

Includes:

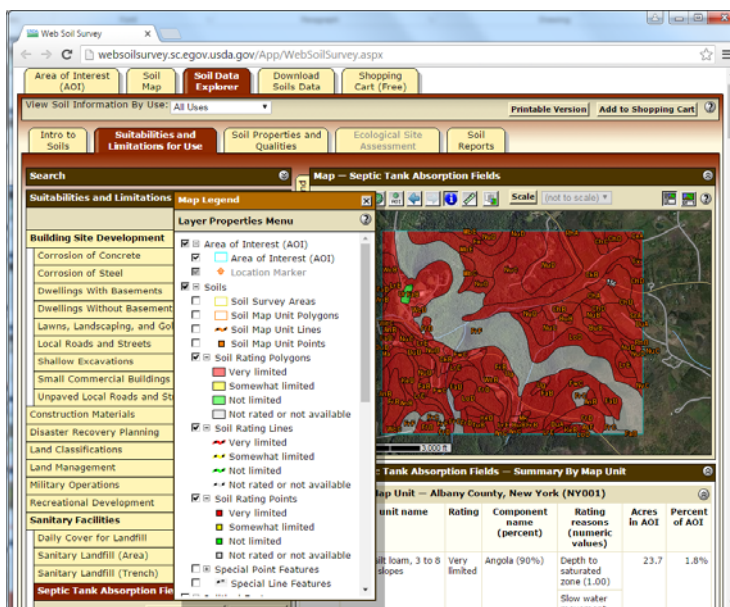
- Significant natural communities
- Important areas for:
 - *Rare plants*
 - *Rare animals*
- Significant Biodiversity Areas (SBAs)
- Stream class, trout status



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USDA Web Soil Survey

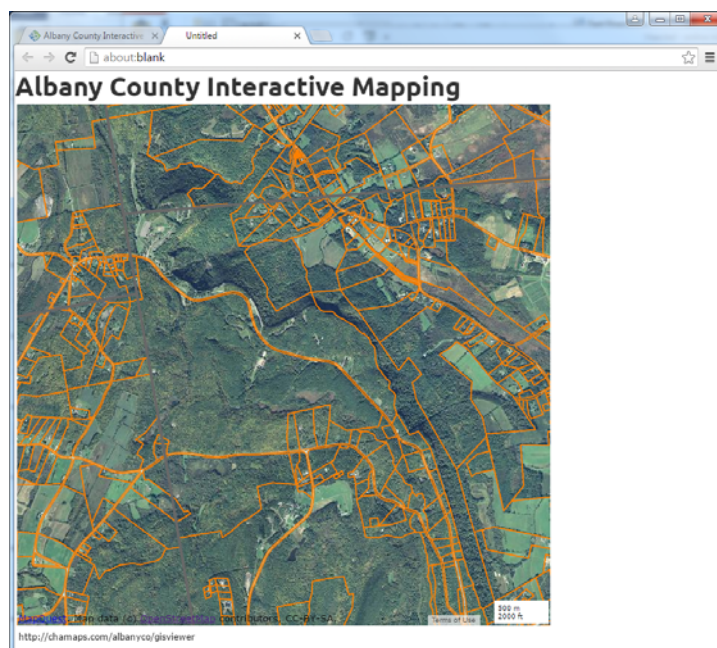
- Search by address or zoom
- Define “Area of Interest” by selecting rectangle or drawing polygon
- Switch tabs to view Soil Map
- Soil Data Explorer provides detailed soil properties and analysis of suitability for construction, stormwater management, etc. – example: septic tank absorption fields

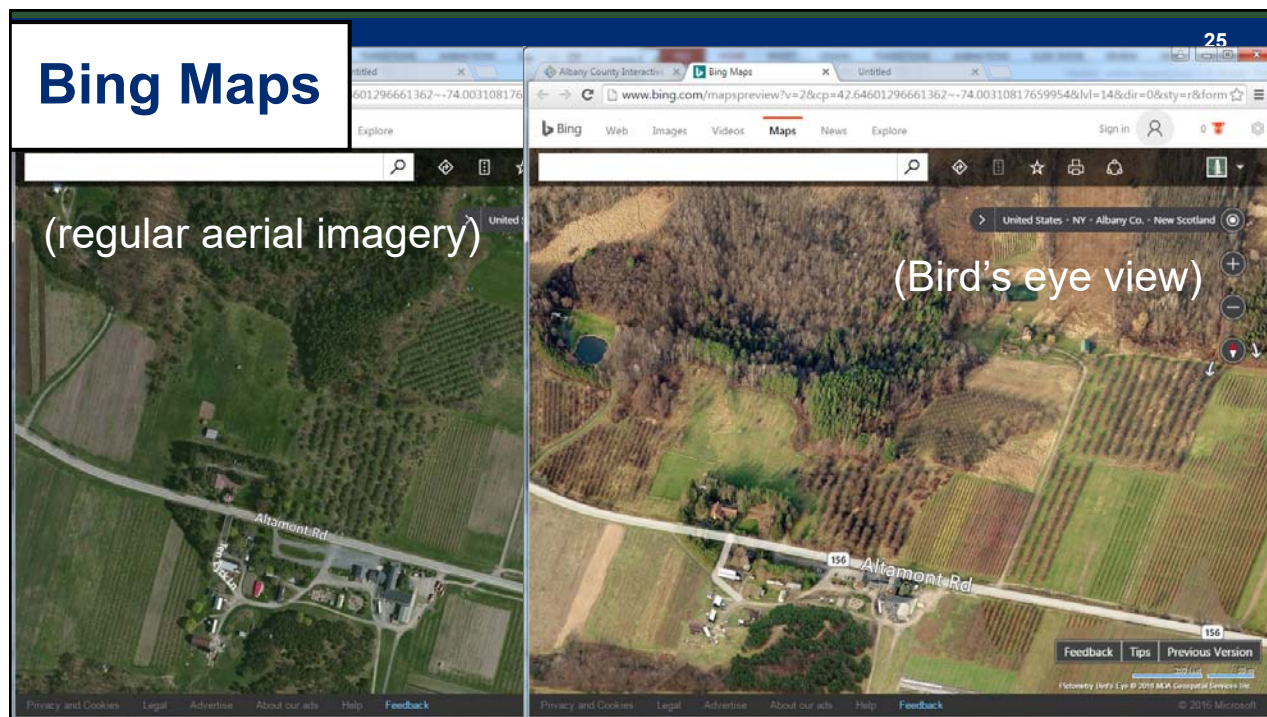


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Albany County GIS

- Tax parcel data
- Parks, preserves, and trails
- DEC and NWI wetlands
- FEMA flood zones
- Soils (unit, slope, drainage, farmland value)
- Contours (2 ft, 10 ft, 50 ft)
- Aerial imagery 1994-2014
- Bing, Google, and Open Street basemaps and imagery
- StreetView and Bird's Eye links
- Print or share map link





Saratoga County Map Viewer

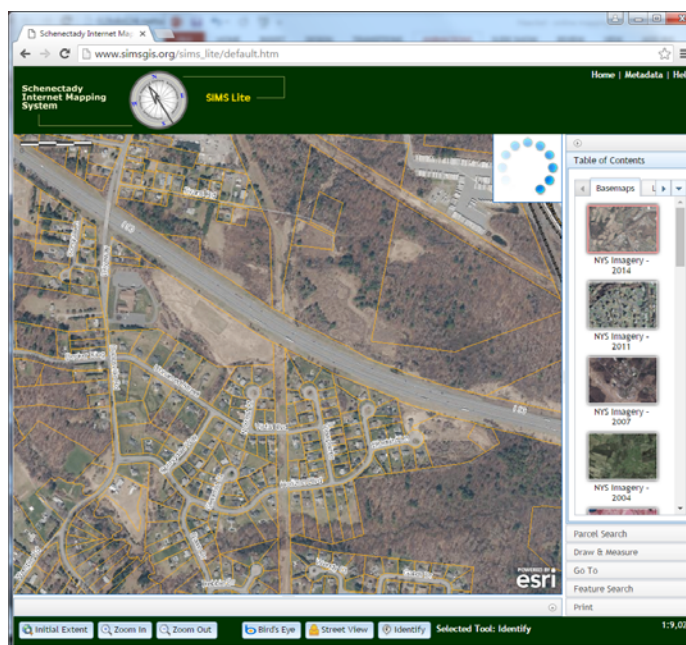
- Tax parcel data, some zoning
- DEC wetlands + buffer zones
- NWI wetlands
- NHD streams and waterbodies
- FEMA flood zones
- Soils (unit, slope)
- Contours (2, 10, 20, 50, 100 ft)
- Trails
- Aerial imagery 2004-2014
- StreetView and Bird's Eye links
- Print map



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Schenectady Internet Mapping System

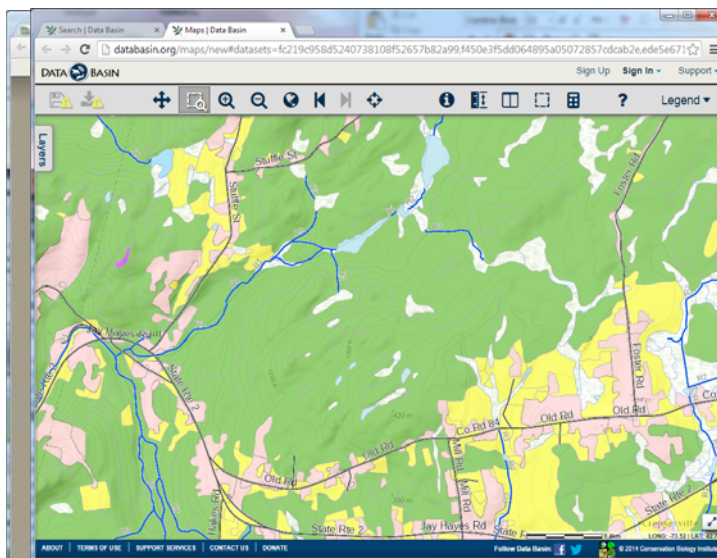
- Tax parcel data and zoning
- DEC classified wetlands, streams, and waterbodies
- FEMA flood zones
- Watersheds, subwatersheds
- Soils (unit code, hydric)
- Aquifers
- Aerial imagery 1941-2014
- Topographic base maps
- StreetView and Bird's Eye links
- Print map

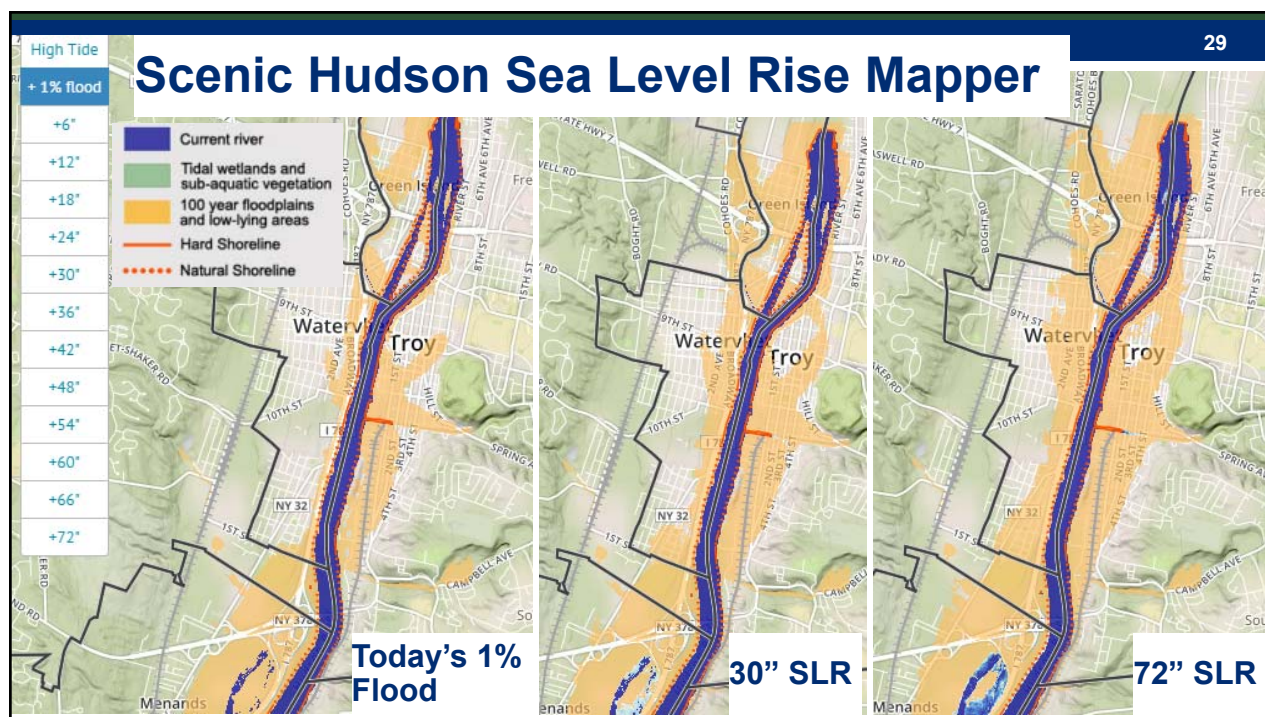


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Local Studies: Rensselaer Plateau Ecological Maps

- Available on databasin.org
- Address search or manual zoom
- Ecological communities
- Forest blocks, interior areas, and corridors
- Aquatic communities
- Ecosystem complexes
- Use with NYNHP conservation guides





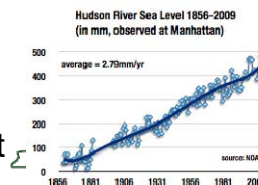
NYS has adopted sea level rise projections for permitting and regulatory processes

Table 1. New York State Sea-level Rise Projections, 6 NYCRR Part 490

Region	Long Island					NYC/Lower Hudson					Mid-Hudson				
Descriptor	L	L-M	M	H-M	H	L	L-M	M	H-M	H	L	L-M	M	H-M	H
2020s	2	4	6	8	10	2	4	6	8	10	1	3	5	7	9
2050s	8	11	16	21	30	8	11	16	21	30	5	9	14	19	27
2080s	13	18	29	39	58	13	18	29	39	58	10	14	25	36	54
2100	15	21	34	47	72	15	22	36	50	75	11	18	32	46	71

Values represent inches of rise over baseline level, which is defined as the average level of the surface of marine or tidal water over the years 2000 through 2004.

- Albany is in the Mid-Hudson region
- Projections are in inches and by time horizon
- We are currently on the High (H) track due to rapid ice melt



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Additional findings about J.B. Thacher State Park

- Steep slopes and soil properties
- Stream condition index values
- NWI wetlands and somewhat poorly drained soil locations
- Locally significant forest block in regional forest linkage zone
- Significant Biodiversity Area; more specific areas of importance to rare plants and animals
- Conservation guidance for natural communities



Photo by NYSDEC



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Some final tips for using online maps...

- Check browser requirements and recommendations
- Enable pop-ups in your web browser
- Read the instructions and use tutorials!

... and remember – maps are oftentimes imperfect and incomplete! They are no substitute for site visits and field delineation.



Photo by Laura Heady



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Standardizing Review Procedures: Developing a Site Resource Assessment Checklist

Town of Rhinebeck Site Resource Analysis Assessment

Name of subdivision:

Address:

	Yes	No	Not
Are there streams, wetlands, waterbodies or watercourses that require protection buffer areas?			
Is there a stream located on the parcel?			
Will the stream be protected?			
Is there active farmland contiguous to or within 500 feet of the subject parcel?			
Is there an Agricultural Zoning parcel?			
Are there riparian areas that the Town desires to be kept clear of development?			
Could development alter the visual character from other areas dramatically?			
Could development alter natural resource values within the property?			
Have visual mitigation measures been discussed?			
Are there high quality trees and significant groups of trees that should be preserved?			
Is there the potential for significant wildlife habitat or wildlife migration area?			
Do any of these significant natural areas extend into adjoining properties?			
Have mitigation measures been discussed?			
Are there areas with wetland outcrops on the site?			
Is the parcel adjacent to a publicly maintained road?			
Are there possibilities for roadway, driveway or other road connections?			
Are there special cultural, archaeological or other historic features that should be preserved?			
Is the parcel adjacent to or within a historic, State or locally designated historic site or district?			
Is the parcel adjacent to or within an officially designated State District or State Road?			
Is the parcel adjacent to or within an officially designated Critical Environmental Area (CEA)?			
Is the parcel within the local Watershed Protection Area?			
Can the development be connected to a community water supply system?			
Can the development be connected to a community sewage disposal system?			
Will alternative housing be addressed by the subdivision?			

Priority resources that should be preserved on the site:

Recommendations:

Date of Planning Board site visit:

Example from the Town of Rhinebeck

- stream and waterbody buffers?
- significant habitats or wildlife corridors?
- active farmland?
- scenic and historic resources?
- possible trail connections?



Conduct site visits to evaluate the parcel



Photo: Laura Heady

- Verify constraints identified in the preliminary resource analysis
- Identify other features of concern that might not have been mapped



Habitat Assessment Guidelines



Photo: Laura Heady

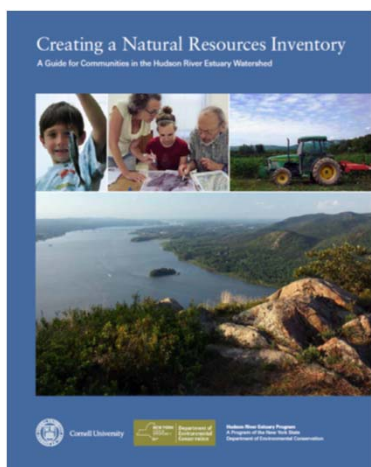
Guidelines provide clear instructions for a qualified professional to visit the site prior to beginning the SEQR process and:

- identify significant habitats,
- evaluate habitat quality,
- prepare and submit report,

and enable the planning board, town board, and applicant to work together to conserve natural assets.



Estuary Program Publications & Grants



Conserving Natural Areas and Wildlife in Your Community:

Smart Growth Strategies for Protecting the Biological Diversity of New York's Hudson River Valley



New York State Department of Environmental Conservation

CONSERVING NATURE IN YOUR COMMUNITY

Tools and Resources from the Estuary Program and Partners

The New York State Department of Environmental Conservation's (NYDEC) Hudson River Estuary Program and Cornell University are partnering with communities to encourage better conservation of the open space to sustain the health and resiliency of the entire estuary watershed by providing critical data, information, and training. The Conservation and Land Use Program offers strategies for "smart planning" that support economic growth and quality of life while keeping nature in mind. Visit www.dec.ny.gov/lands/5091.html for more information.



Publications

Hudson River Estuary Wildlife and Habitat Conservation Framework

The Framework provides a regional overview of biodiversity resources in the Hudson River estuary corridor, describes key data and animal habitats, locates a map and descriptions of Significant Ecological Areas and proposes various strategies for their conservation. Available in print and on the NYDEC website at www.dec.ny.gov/lands/5091.html and on DEC's website.

Conserving Natural Areas and Wildlife in Your Community

This handbook offers conservation guidance and smart growth strategies to local governments in the Hudson River Valley. Available in print and on the NYDEC website at www.dec.ny.gov/lands/5091.html and on DEC's website.

Creating a Natural Resources Inventory

This guidebook outlines how to inventory natural and cultural assets and presents case studies and strategies for using an NRI in local planning. Available in print and on the NYDEC website at www.dec.ny.gov/lands/5091.html and on DEC's website.

Biologically Assessed Manual for the Hudson River Estuary Corridor

This manual was written to help and guide the NYDEC in the guidance in identification, assessment, and protection of natural, plants, and animals of conservation importance. See www.dec.ny.gov/lands/5091.html.

A Program of the New York State Department of Environmental Conservation www.dec.ny.gov

Estuary Grants: www.dec.ny.gov/lands/5091.html



Questions?

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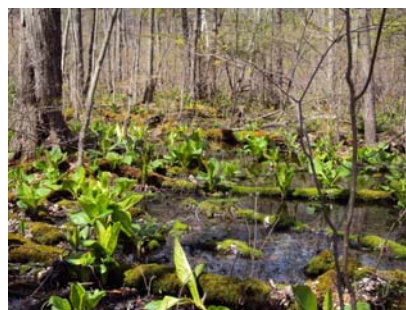


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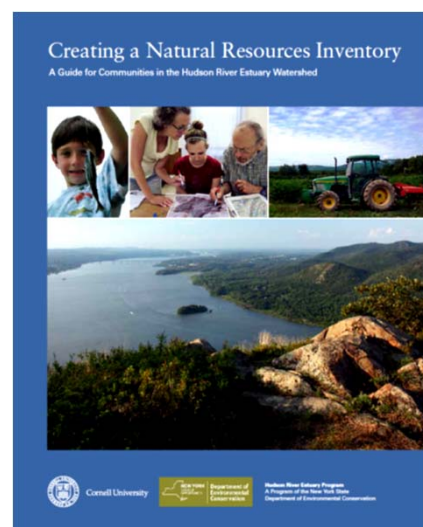
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Putting it all together: A Natural Resources Inventory (NRI)

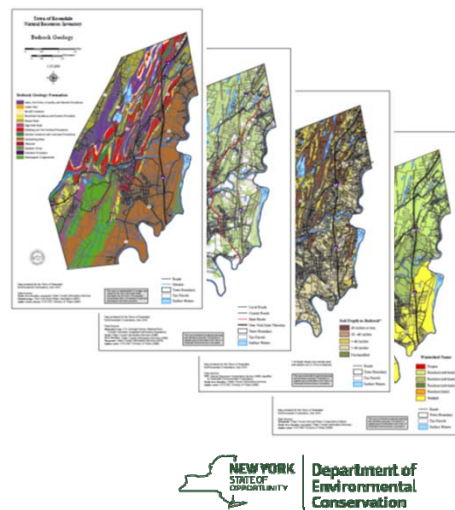
- a compilation and description of physical and biological resources within a particular area (municipality, watershed, region)
- primary focus is naturally-occurring resources, but can also include scenic, historic, or recreational resources



Why create a natural resources inventory?

An NRI provides:

- A visualization of natural resources and their inter-connectedness
- A valuable reference for planning at the site level or town-wide scale
- Context for identifying conservation priorities
- An education tool



Habitat Summary reports available by request

Habitat Summaries compile public data in maps, narrative, and tables:

- Regional Context
- Major Ecological Features
- Coastal and Shoreline Habitat
- Streams and Watersheds
- Wetlands
- Large Forests (200+ acres)
- Grassland, Shrubland, and Young Forests
- Tables of rare plants, animals, ecosystems

