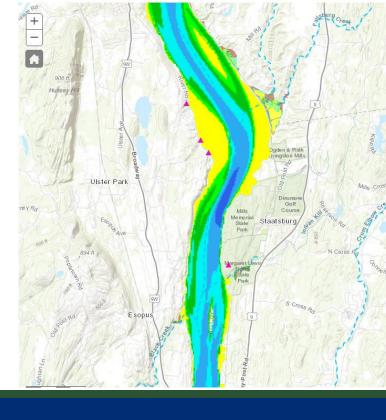


# **DEC Online Interactive Mappers**

Capital District Regional Planning Commission Local Government Workshop January, 9 2019



Nate Nardi-Cyrus, Conservation & Land Use Specialist
DEC 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



### **Conservation and Land Use Program**

- Identify important natural areas.
- Improve understanding of the benefits they provide.
- Provide technical assistance for incorporating conservation principles into local planning.



Photo by Ingrid Haeckel

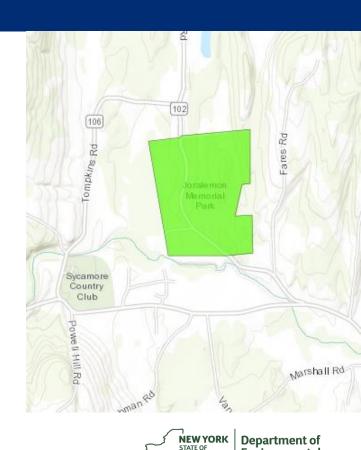


Conservation

#### 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, soil maps, etc.
- Local inventories, plans, and studies
- County or regional inventories, plans, and web maps
- Statewide maps and databases
  - NYSDEC
  - NY Natural Heritage Program
- Site Visits



Photo by Laura Heady

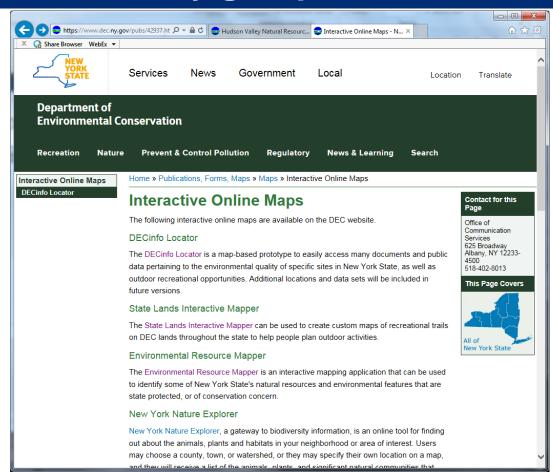


#### Online mapping tools covered today:

- 1. DEC EAF Mapper
- 2. DEC Environmental Resource Mapper
- 3. Hudson Valley Natural Resource Mapper
- 4. DECinfo Locator



#### https://www.dec.ny.gov/pubs/42937.html



NEW YORK STATE OF OPPORTUNITY

Department of Environmental Conservation

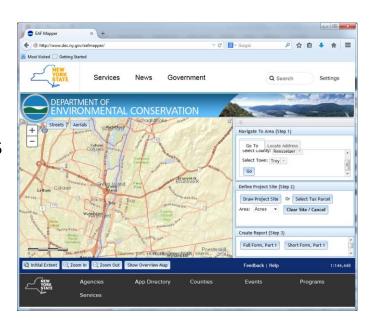
#### **NYSDEC Environmental Assessment Form Mapper**

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.

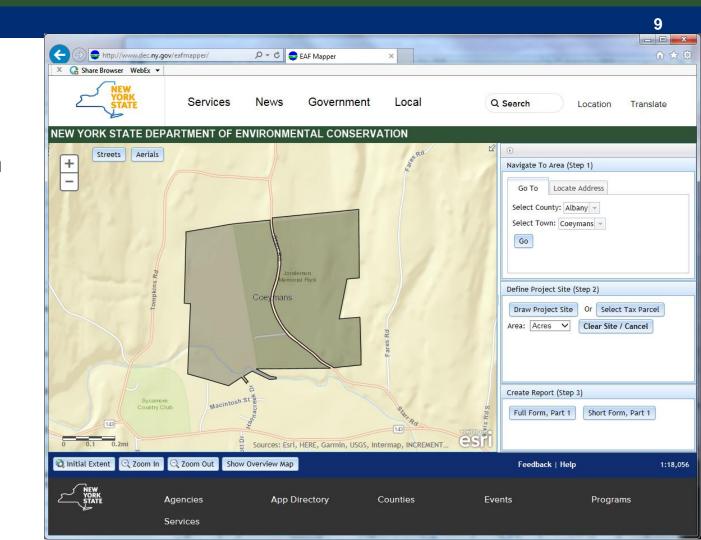
Databases are incomplete. Ask questions!





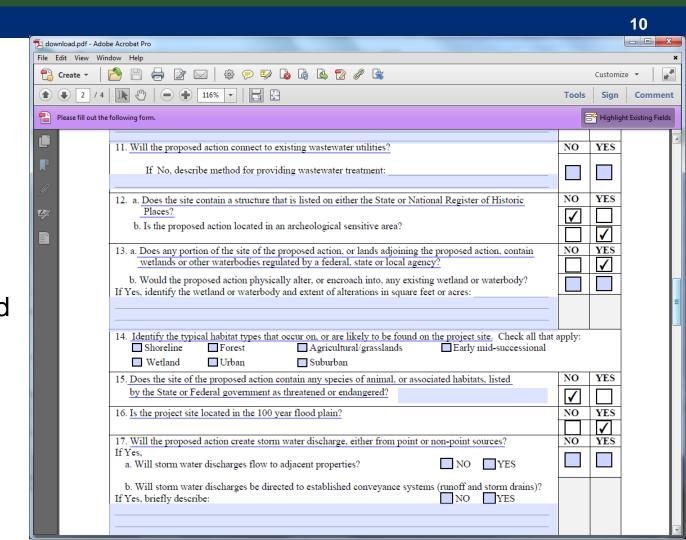
## NYSDEC EAF Mapper

- search by address, municipality, or zoom manually
- draw project site or select tax parcel



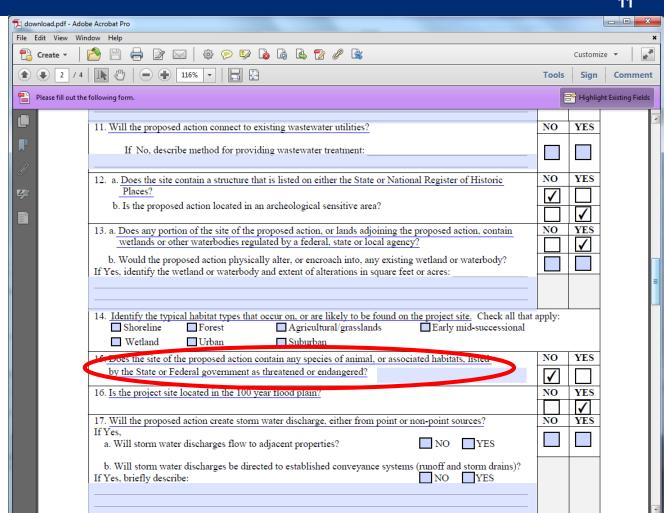
#### NYSDEC EAF Mapper

- search by address, municipality, or zoom manually
- draw project site or select tax parcel
- EAF part 1 generated for download (enable pop-ups)



#### 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)
- Links to EAF
   Workbooks



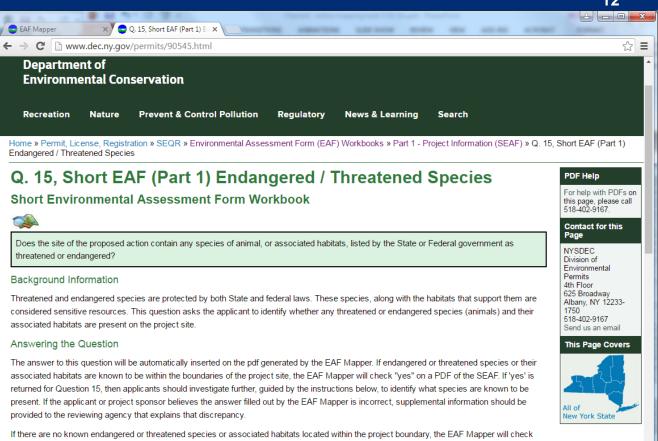
## NYSDEC EAF Mapper

- search by address, municipality, or zoom manually
- draw project site or select tax parcel
- EAF part 1 generated for download (enable pop-ups)

"no" on the form for you.

get this information. The following links will be helpful sources of information:

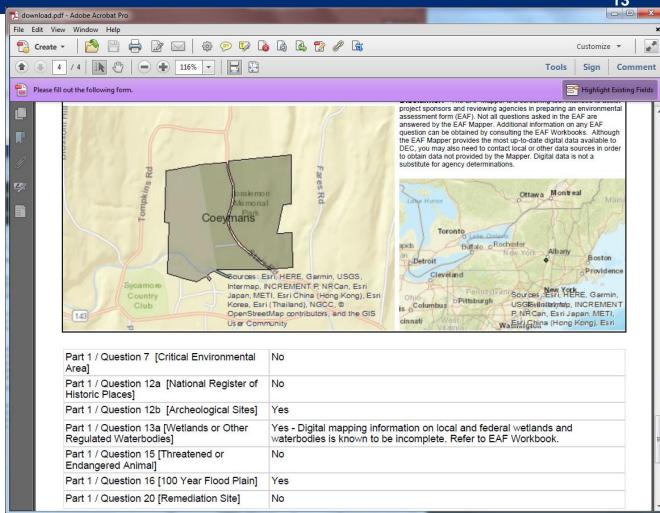
Links to EAFWorkbooks



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

#### **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)
- Links to EAF Workbooks
- Summary Report



Initial findings about Joralemon Park from the Long Form EAF:

- NYS Wetlands present
- Class C, C(T), and A(TS) streams
- Unique geologic features
- FEMA-mapped 100-year floodplain
- Principal aquifer
- Significant natural communities mapped on site
- Two Threatened plant species present
- Archeological sensitive area ... and more



Photo by Ro Woodard



#### Considerations when reviewing automated EAFs

- Wetlands and streams
- Floodplains
- Rare species

... There is no substitute for site visits!





#### Other Considerations:

- Habitat connectivity on- and off-site
- Riparian and wetland vegetated buffers
- Rare plants or animals (Species of Greatest Conservation Need)
- Areas vulnerable sea level rise
- Features of local concern/ significance documented in inventories or plans
  - -- SEQR requires taking a "hard look." Use additional tools and resources to gather information!



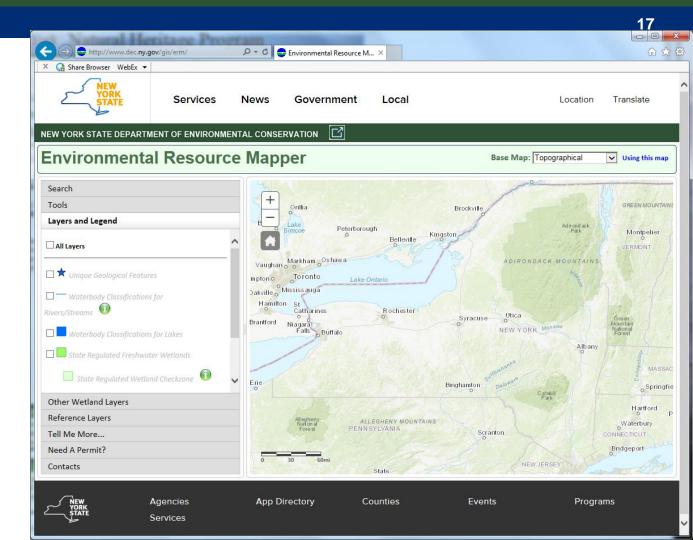
Photo by Ingrid Haecke



Photo by Laura Heady

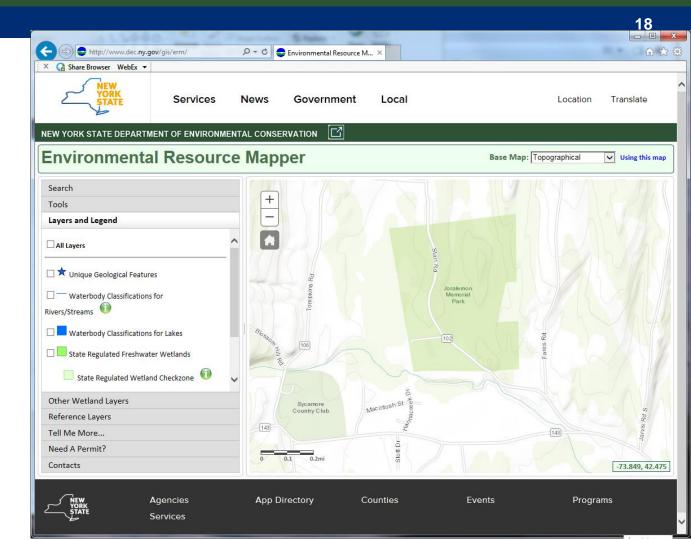
#### NYSDEC Environmental Resource Mapper

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



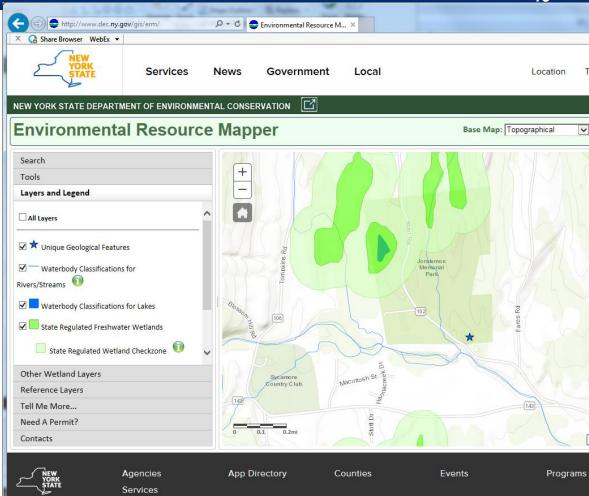
#### NYSDEC Environmental Resource Mapper

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



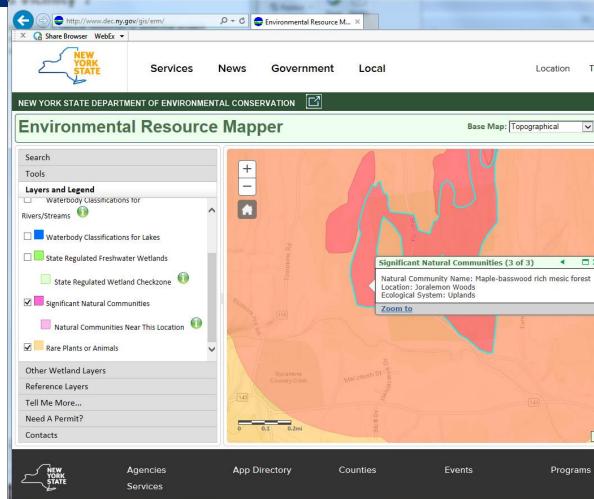
#### NYSDEC Environmental Resource Mapper

- classified streams and waterbodies
- NYS regulatory freshwater wetlands and wetland check zones
- unique geological features



#### NYSDEC Environmental Resource Mapper

- rare plants and rare animals; historical records
- natural communities



#### **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.



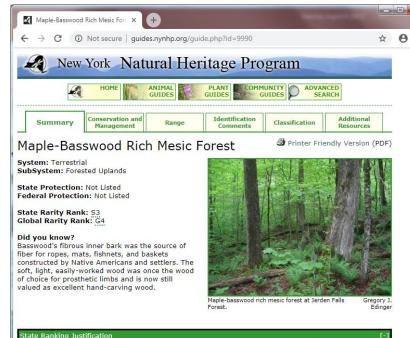
Additional Links
Rarity Rank Definitions
Community System Descriptions
Key to Systems and Subsystems
Acknowledgements
About Us







www.guides.nynhp.org



There are several hundred to a few thousand occurrences statewide. Some documented occurrences have good viability and many are protected on public land or private conservation land. This community

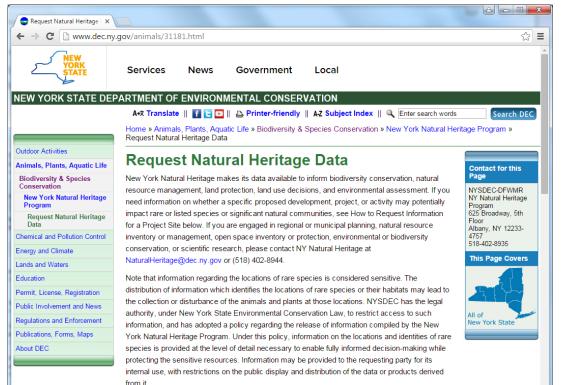
agiculture, and other development.

Short-term Trends

is somewhat limited to the calcareous regions of the state, and includes several very large, high quality, old-growth examples. The current trend of this community is probably stable for occurrences on public land, or declining slightly elsewhere due to moderate threats related to development pressure. This community has declined substantially from historical numbers likely correlated with past logging,

### Request Natural Heritage Program Data:

#### NaturalHeritage@dec.ny.gov



NEW YORK STATE OF OPPORTUNITY

Department of Environmental Conservation

## Findings about Joralemon Park from the Environmental Resource Mapper:

#### Locations of:

- mapped NYS wetlands, check zones
- mapped NWI wetlands
- classified streams & waterbodies
- unique geologic features
- significant natural communities
- rare plant area

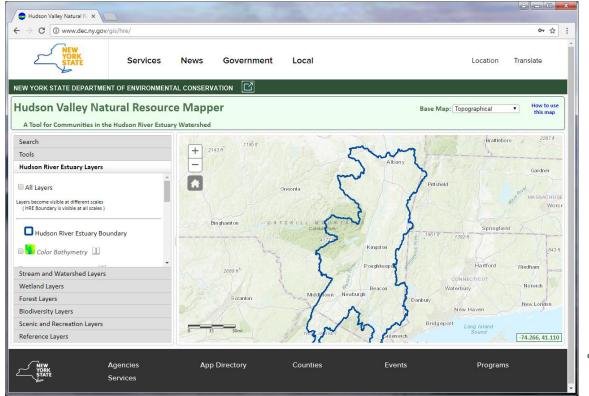


Photo by Ingrid Haeckel



### **Hudson Valley Natural Resource Mapper**

#### www.dec.ny.gov/lands/112137.html





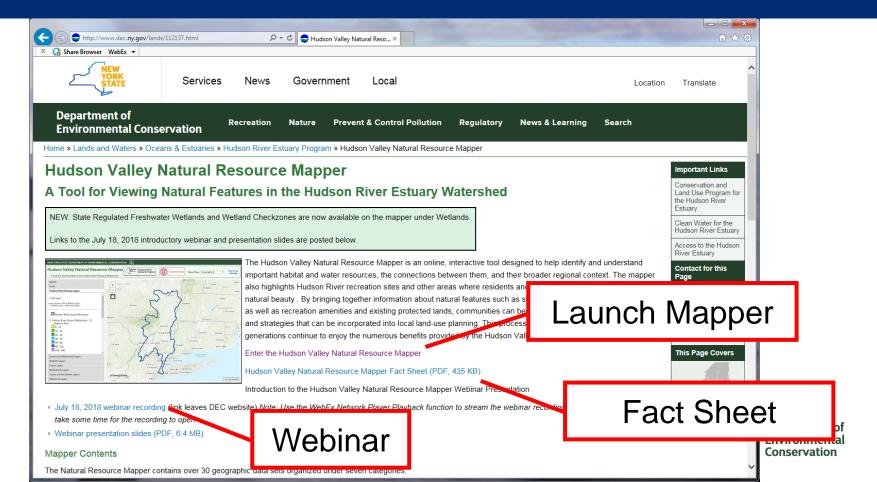
#### **Natural Resource Mapper Goals**

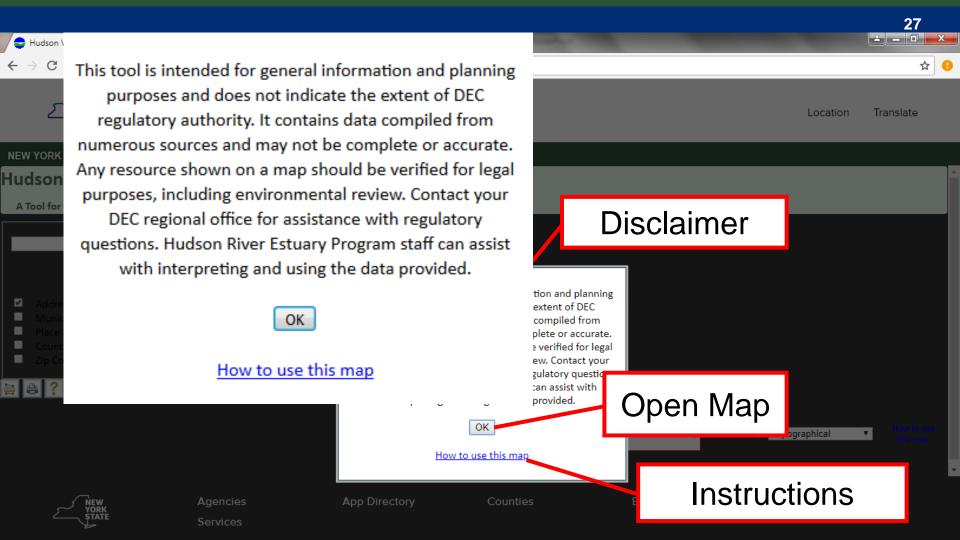


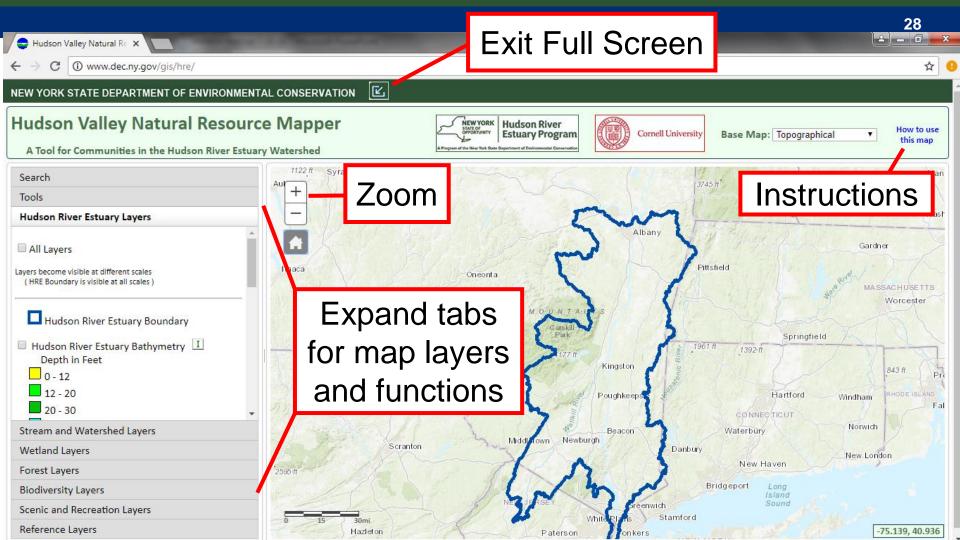
- provide access to a broad suite of habitat and water resource data sets in one easy-to-use tool.
- home for unique Hudson Valley data.
- visualize regional context and interconnectedness of resources.

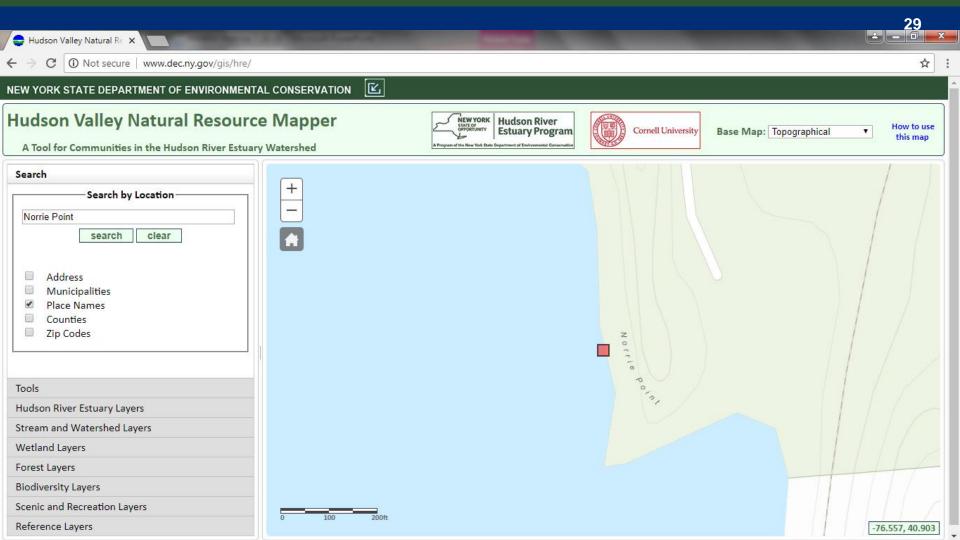


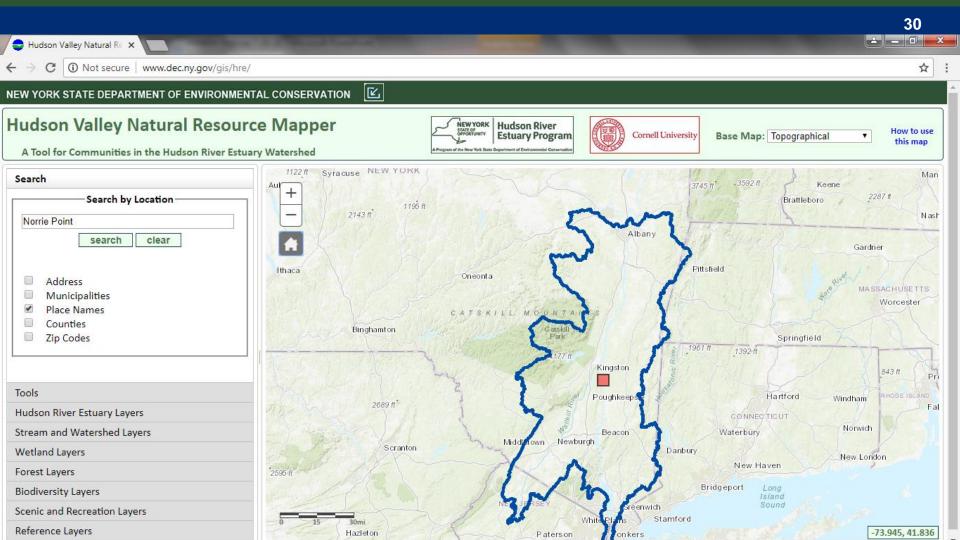
#### **Landing Page on DEC website**

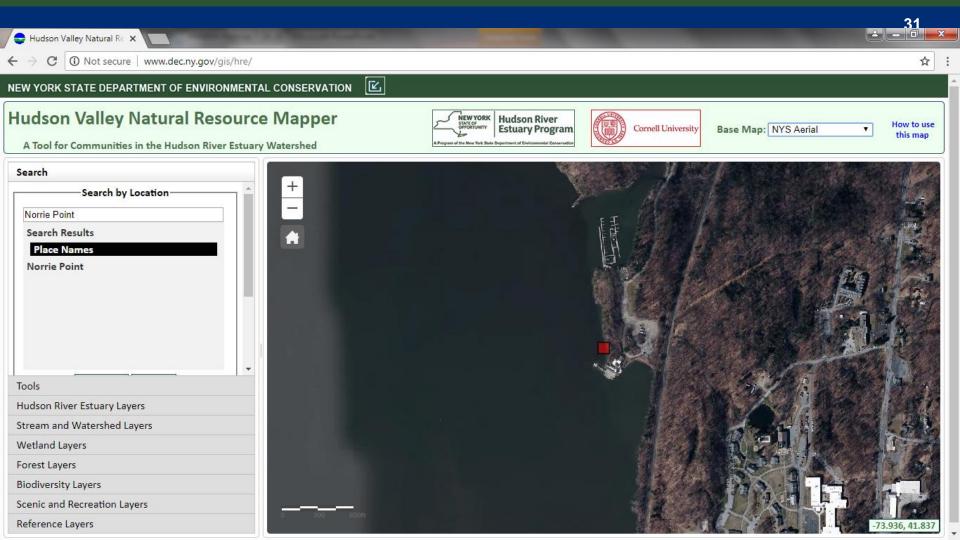


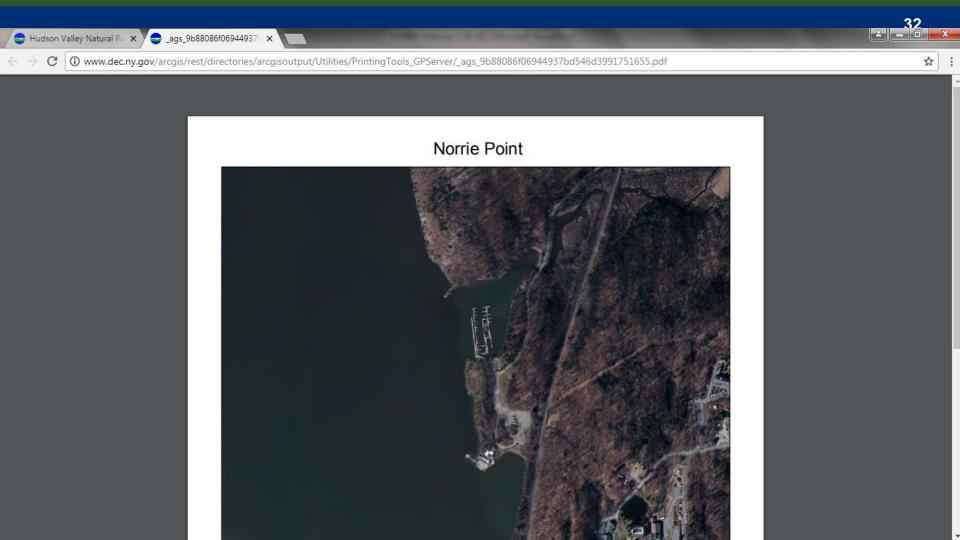


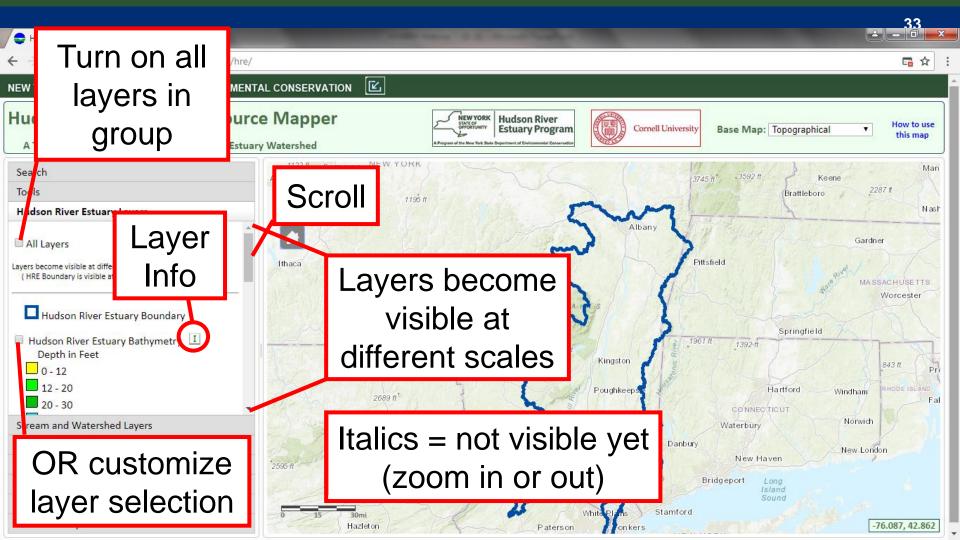












#### Bathymetry – water bottom elevation

The elevation of the water bottom in the Hudson River Estuary constrains the use of nature of the water limits light penetration to a few meters. Animals that depend on limited by water depth – deep draft vessels are confined to the navigation channel. C

Water depth is provided in feet below sea level. Tides in the estuary cause water depthe North American Vertical Datum 1988 (NVD88). This is the same vertical reference navigational charts. Water depths shown on this Mapper will appear ~2.5 feet greats

Publication Year: 2008

Publisher: Hudson River National Estuarine Research Reserve and NYS Department of

For more information: NY Department of Environmental Conservation

Link to GIS Data Download: GIS.NY.GOV

Hudson River Estuary and Tidal Tributary Boundary

Approximate boundary of the Hudson River Estuary shoreline based on interpretation of 1995-1997 air photos.

Publication Year: 2002

Publisher: Hudson River National Estuarine Research Reserve and NYS Department of Environmental Conservation

Link to GIS Data Download: CUGIR

#### NYSDOS Significant Coastal Fish and Wildlife Habitat Areas

DEC has identified and evaluated coastal habitats throughout the state's coastal regions, providing recommendations to the New York State Department of State (NYSDOS) so that the most important or "significant" habitats may be designated for protection in accordance with the Waterfront Revitalization and Coastal Resources Act. The Significant Coastal Fish and Wildlife Habitats (SCWFWs) are useful for planning at the local level because they describe the highest quality habitats on the Hudson, outlining fish and wildlife values and activities that may have large impacts on the habitats. State and federal law requires that some projects may be reviewed for consistency with coastal policies on significant fish and wildlife habitat. Contact the NYSDOS Office of Planning &

Layer description
Publication year
Publisher
Links
GIS data download

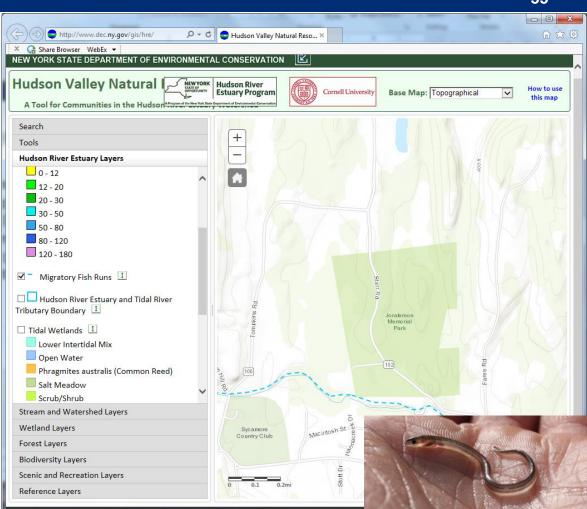
reach the estuary floor. The turbid their life cycle. Vessel navigation is nfluenced by water depth.

n this Mapper is water depth relative to the vertical datum used in NOAA

### **Estuary Map**

#### Includes:

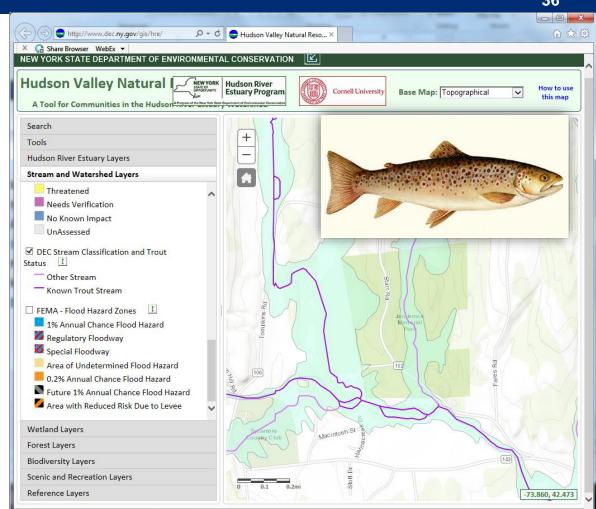
- Underwater elevation
- Migratory fish habitat
- Submerged aquatic vegetation (SAV)
- Tidal wetlands
- Significant Coastal Fish and Wildlife Habitat Areas



## **Streams Map**

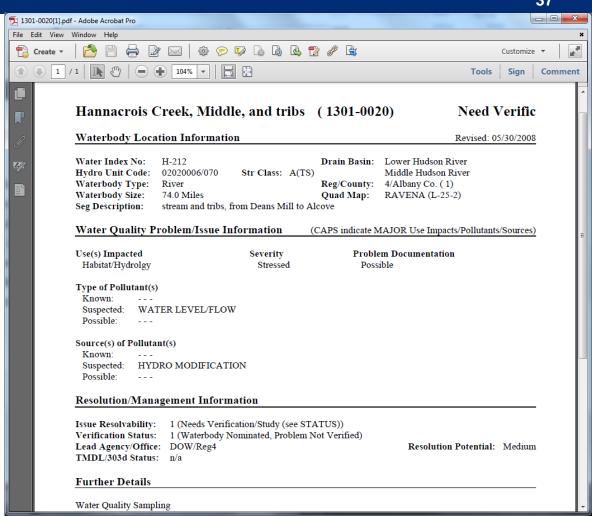
#### Includes:

- Watersheds
- Forest & impervious cover
- Riparian buffers
- Dams and culverts
- Stream biomonitoring
- Priority waterbodies
- FEMA flood zones



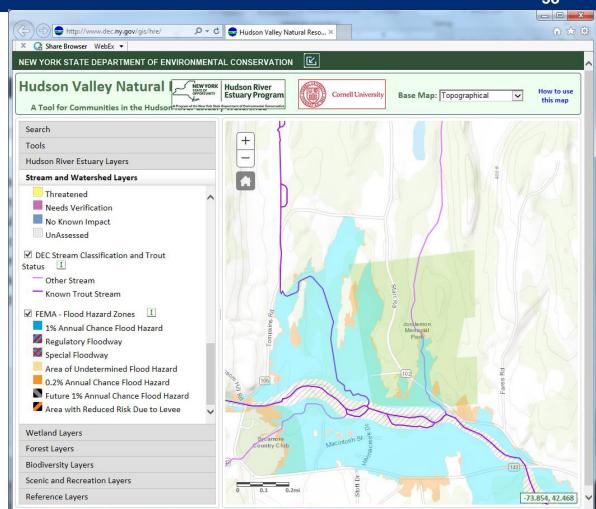
## **Streams Map**

- Watersheds
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- FEMA flood zones



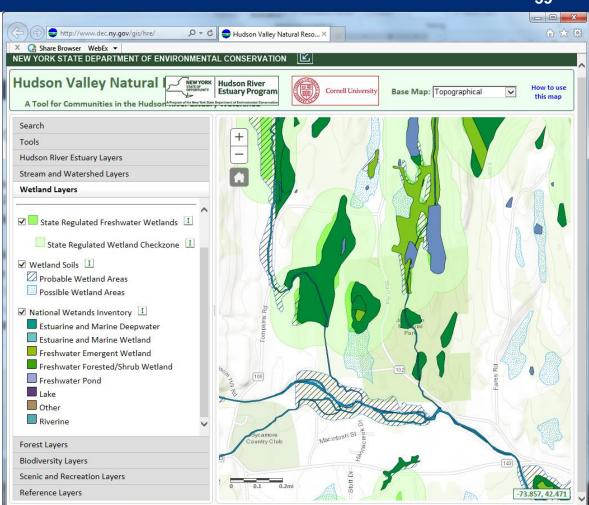
## **Streams Map**

- Watersheds
- Forest & impervious cover
- Riparian buffers
- Classified streams
- Dams and culverts
- Stream biomonitoring
- Priority waterbodies
- FEMA flood zones



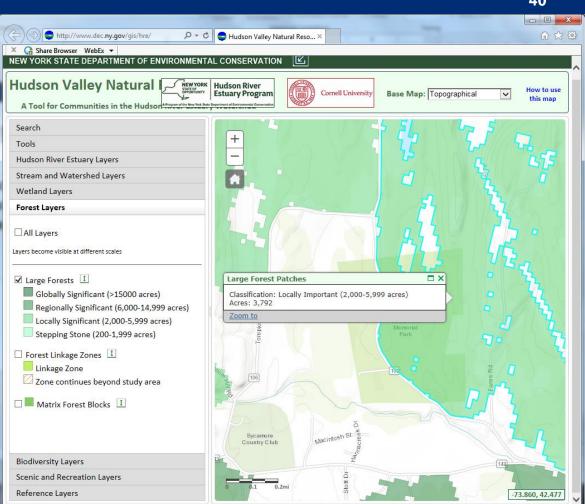
## **Wetlands Map**

- NYS Freshwater Wetlands and check zones
- National Wetlands Inventory (NWI)
- Wetland soils:
  - Probable wetlands: poorly and very poorly drained
  - Possible wetlands: somewhat poorly drained



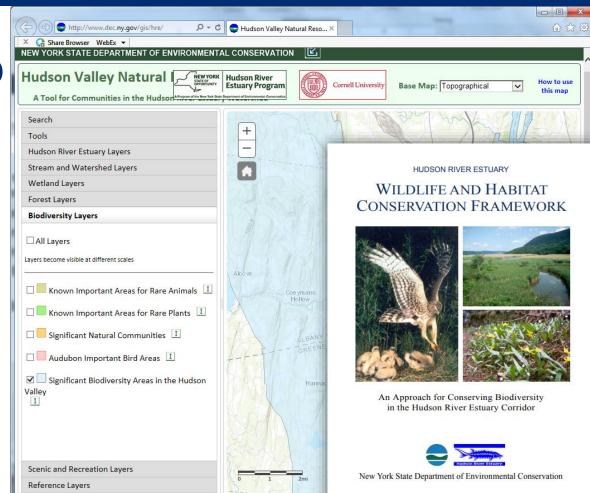
## **Forest Map**

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



## **Biodiversity Map**

- Significant natural communities
- Known important areas for:
  - Rare plants
  - Rare animals
- Significant Biodiversity Areas (SBAs)
- Important Bird Areas



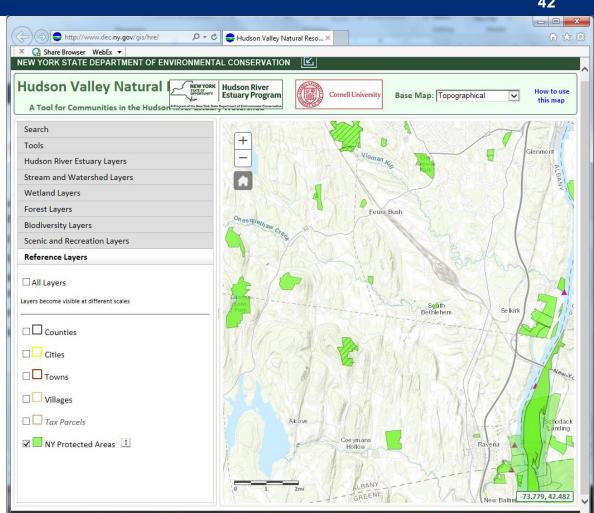
## Scenic & **Recreation Map**

#### Includes:

- Hudson River Fishing Access & Boat Launches
- DEC Lands
- State Parks
- Scenic Areas of Statewide Significance

#### **Under Reference Layers:**

NY Protected Areas



# Findings about Joralemon Park from the Hudson Valley Natural Resource Mapper:

#### Locations of:

- migratory fish habitat
- suspected water quality impacts
- wetland soils
- locally significant forest block
- significant biodiversity area
- more specific rare plant area



Photo by Ingrid Haeckel

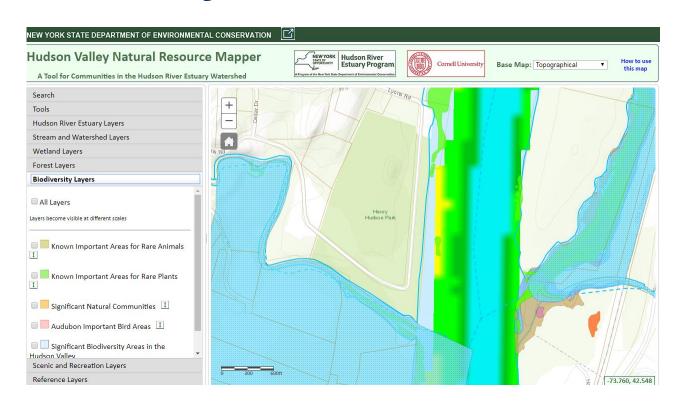


### **Troubleshooting Tips**

- If not displaying properly, restart browser
- Turn on layers individually for faster loading time
- Turn off layers you're not using
- If pop-up window is blocking your view, try clicking on a different part of the feature or moving map window slightly

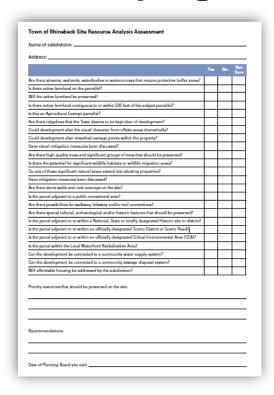


## Other ways to use the data...





## Standardizing Review Procedures: Developing a Site Resource Assessment Checklist



#### **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

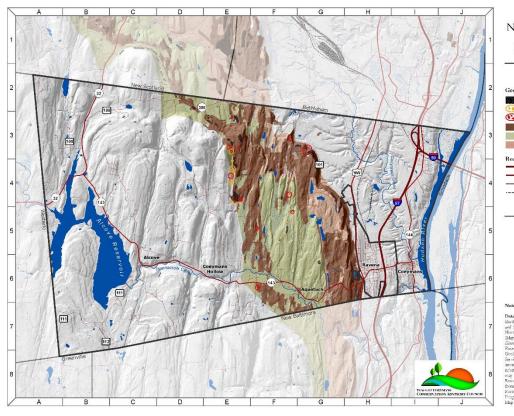


- Verify constraints identified in the preliminary resource analysis
- Identify other features of concern that might not have been mapped



Photo: Laura Heady

## **Develop a Natural Resources Inventory**



Town of Coeymans Natural Resources Inventory

#### 8. Karst Geology





Notes Karat data unavailable outside Albany County.

Data Sources Servingue Salt and Earl Nations Department to District Search, 19th College at developer (Webcarg 2016). District Search 19th College at Machine (1995). I Review 285M. Here there is the College at Machine (1995). I Review 18th College 285M between the College 285M between 19th Law Machine 19th College 285M between 19th Law Machine 19th College 285M between 19th Law Machine 19th



Photo: Wendy Franklin



## Municipal technical assistance & grants:

- natural resources inventories
- open space planning
- watershed planning
- streamside tree/shrub plantings
- dam removal
- culvert replacement
- green infrastructure
- sustainable shoreline strategies
- climate change adaptation planning





Department of Environmental Conservation

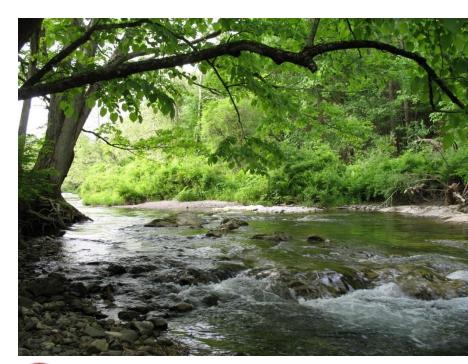
## Thank you! Questions?

#### **Nate Nardi-Cyrus**

Conservation & Land Use Specialist <a href="mailto:nate.nardi-cyrus@dec.ny.gov">nate.nardi-cyrus@dec.ny.gov</a>

Office: 845-256-3062

Hudson River Estuary Program and Cornell University









## **DECinfo Locator**

A new way to find DEC information

January 2019

## **Project Goal**

Create a **user-friendly**, Google Maps-like interface where the user can easily locate **DEC documents and information** about the **environmental quality** of specific sites, as well as **outdoor recreational** opportunities.



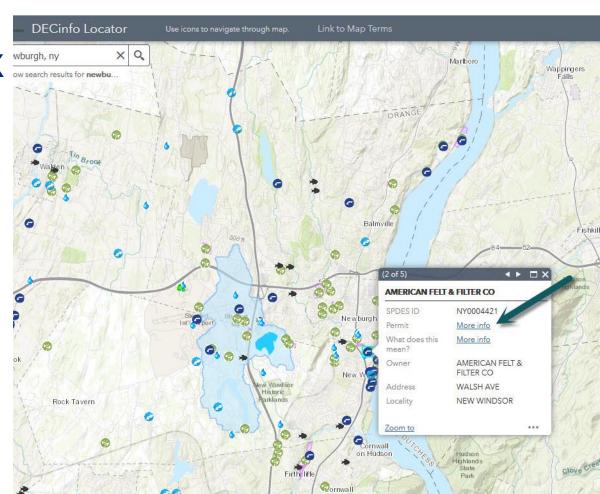
# **Core Functionality**



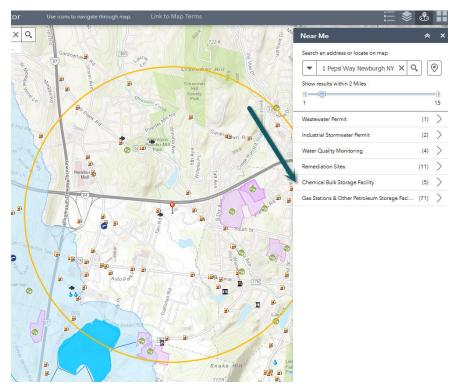
## Icon Pop-up Box wburgh, ny ow search results for newbu...

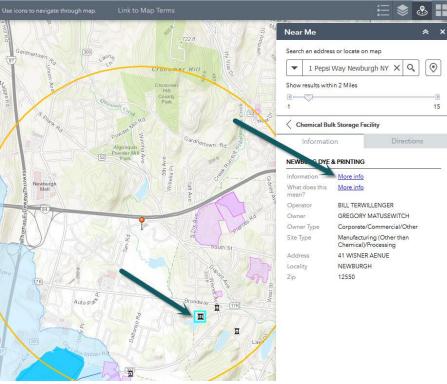
Deep link into online Registry record

Access facility permit, modifications, etc.



## **Nearby Me**

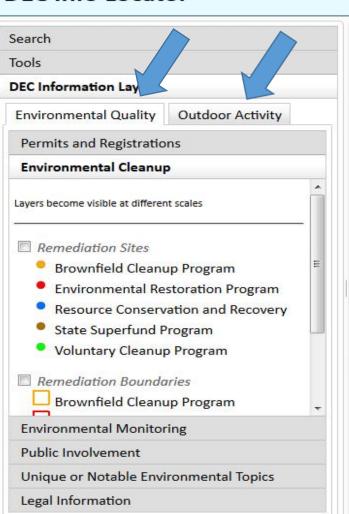


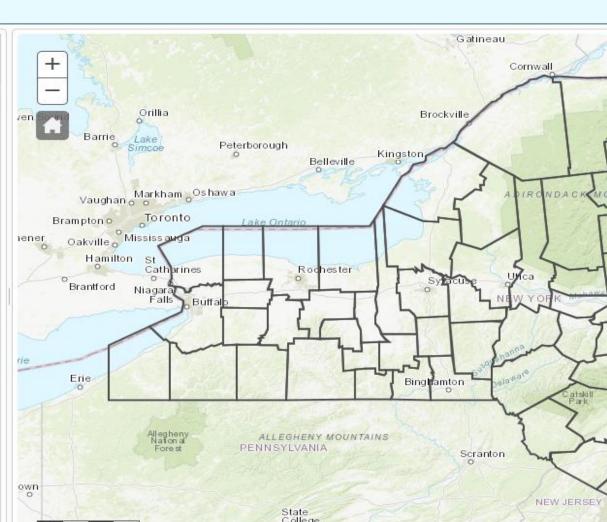


## One Map-Two Views



#### **DEC Info Locator**





## Turn on any information layers in each view

#### **Environmental Quality**

- Facilities
- Watersheds
- Wells
- Mines
- Flood Zones
- Aquatic Monitoring Info
  - Climate Smart Comm.
  - Hearing Decisions
- HABs
  - Etc.

#### **Outdoor Activity**

- State lands
- Boat Launches

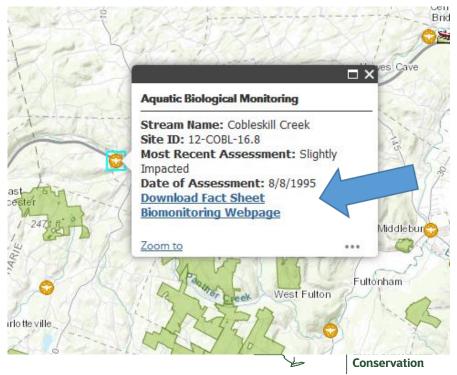


- Campgrounds
- Trails
- WMAs
- HABs
  - Etc.



## **Outdoor Activity**





#### Phase 1

April 1

49 Data Layers/Document Types

Start Phase 2

Document Types? Give us feedback!

http://www.dec.ny.gov/pubs/109457.html



Recreation

Nature

**Prevent & Control Pollution** 

Regulatory

**News & Learning** 

Search

Terms

Home » Publications, Forms, Maps » Maps » Interactive Online Maps » DECinfo Locator

#### **DECinfo Locator**

DECinfo Locator is a map-based way to easily access many documents and public information pertaining to the environmental quality of specifies in New York State, as well as the many outdoor recreational opportunities DEC makes available within the state.

Type in your address or search for a specific town on this map by using the "Search Near Me" address box. You can scroll into the map and zoom to location icons to click. You can view and download documents and information about that facility in the Environmental Quality Map View and recreational activities for a location in the Outdoor Recreational Map View.

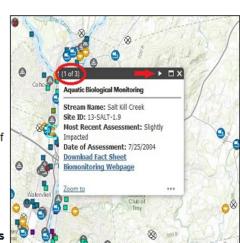
#### Map Views

- Environmental Quality Map View water quality, clean-up areas, air permits, permitted mines (coming soon: waste management facilities, climate smart communities, etc.)
- Outdoor Recreational Opportunities Map View state lands, boat launches, aguatic biological monitoring information (coming soon: campgrounds, trail information, fishing access sites, etc.)

Information layers for icons are stacked; some locations may have multiple data records so look to see it has 1 of 2, 3 or 4 in the pop-up box. Within each view, you can turn on additional information layers by clicking Information in the upper left hand corner of the Legend. \*\*\*This limited prototype is for demonstration purposes ONLY. It provides a few information layers only. \*\*\* Additional locations, documents and information will be added in the next version of DECinfo Locator.

This tool and available information are maintained by the NYS Department of Environmental Conservation. Icons represent the availability of information, not necessarily the presence of contamination or other problems.

layers are coming, so let us know which area you would like to see in the survey.



Some locations have multiple information layers so click on the arrow to look at others

#### **Important Links DECinfo Locator Map**

Links Leaving DEC's Website

Prototype Feedback

#### Survey Contact for this Page

Office of Communication Services 625 Broadway Albany, NY 12233-4500 518-402-8013 Send us an email

This Page Covers



All of New York State

Please take our short feedback survey (only 5 questions) after using the prototype so we can make improvements with the next version. More information

#### **Thank You**

- Cathy Kittle
- Director, Bureau of Web and Editorial Services
- Cathy.Kittle@dec.ny.gov
- 518-402-8006

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