# Land Use Tools and Strategies for Natural Resource Conservation




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NYSDEC Hudson River Estuary Program


NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

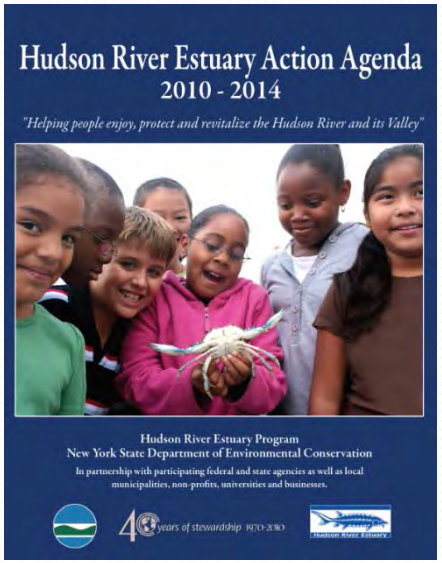
Hudson River Estuary

Cornell University

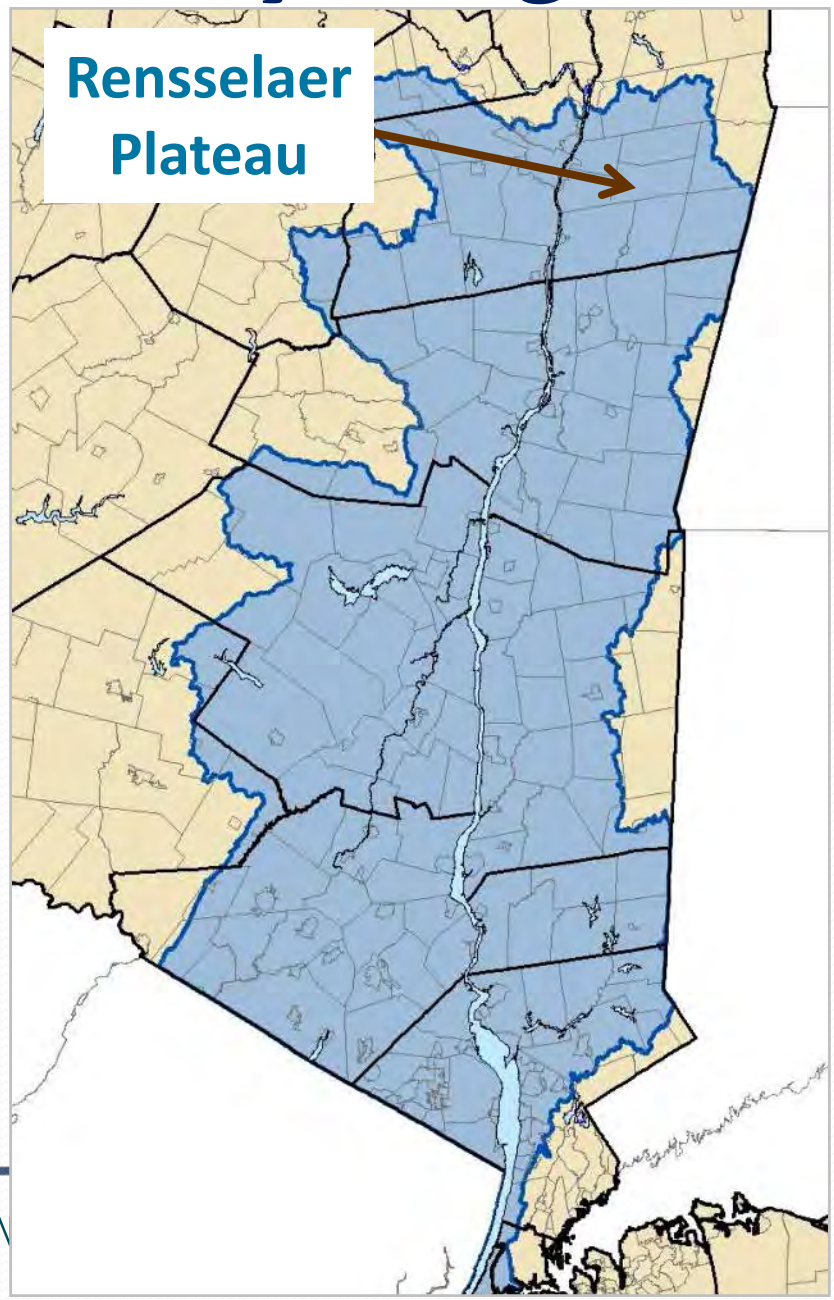
# The Hudson River Estuary Program

## Core Mission:

1. Clean Water
2. Fish & Wildlife Habitats
3. Recreation & Access
4. Climate Change Adaptation
5. Scenery








For Hudson Valley ecosystems,
the individual land-use
decisions of 250 municipalities
can lead to death
by 1,000 cuts.

# Local governments have a critical role in managing forests and wetlands

Photo: Karen Strong

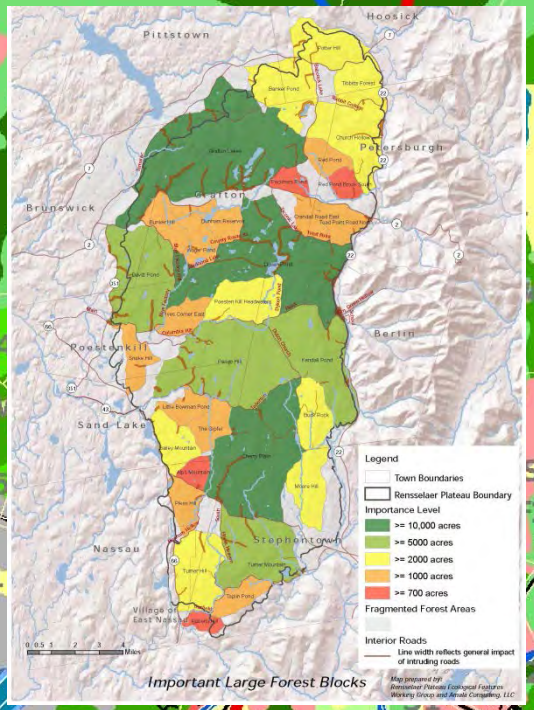
# There are many local tools available to conserve forests and wildlife

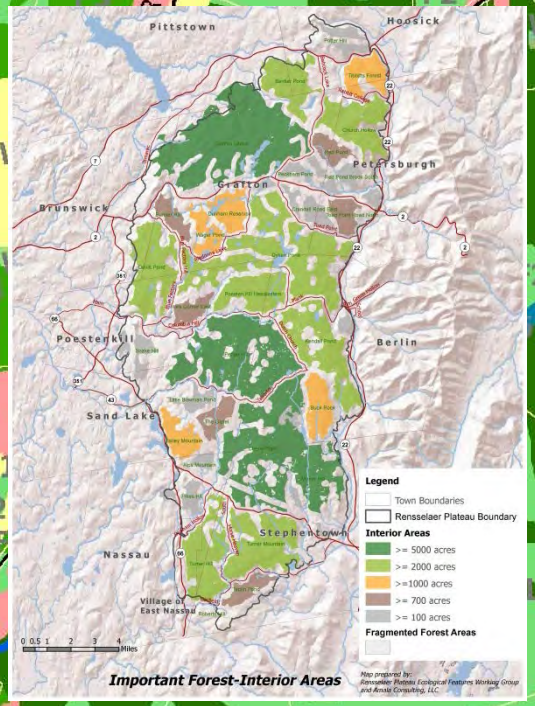
Comprehensive/Master Plan
Open Space Plan
Watershed Plan
Regional Conservation Plan
Natural Resource Inventory
Critical Environmental Area
SEQRA
Zoning
Conservation Overlay Zone
Flexible Lot Subdivisions
Performance Standards
Performance Zoning

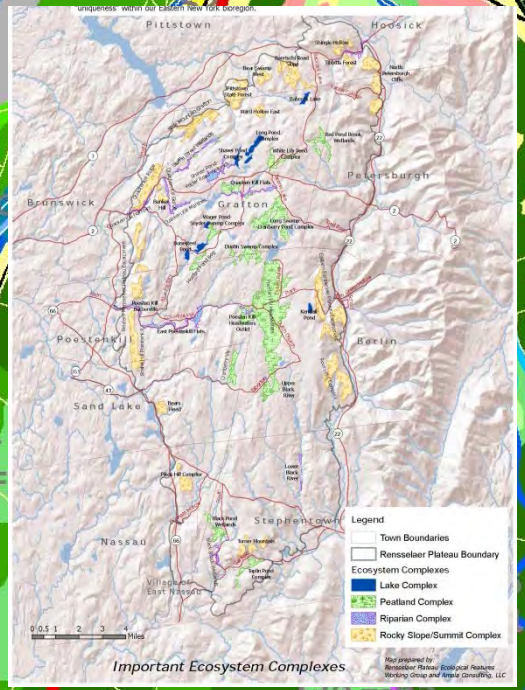
Stormwater Management
Landscaping Requirements
Local Wetland and Watercourse Law
Generic Environmental Impact Statement
Site Plan Review
Conservation Advisory Council
Habitat Assessment Guidelines
Public Outreach and Education
Engage in monitoring efforts
setting a good example…

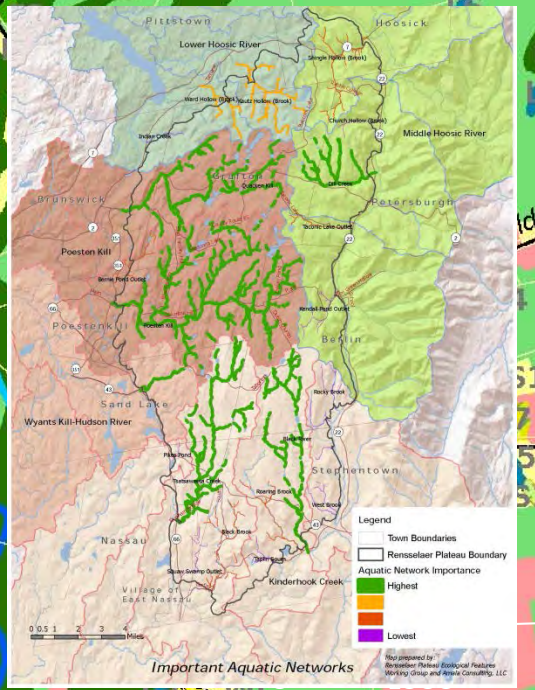
# Recommended Planning Approaches

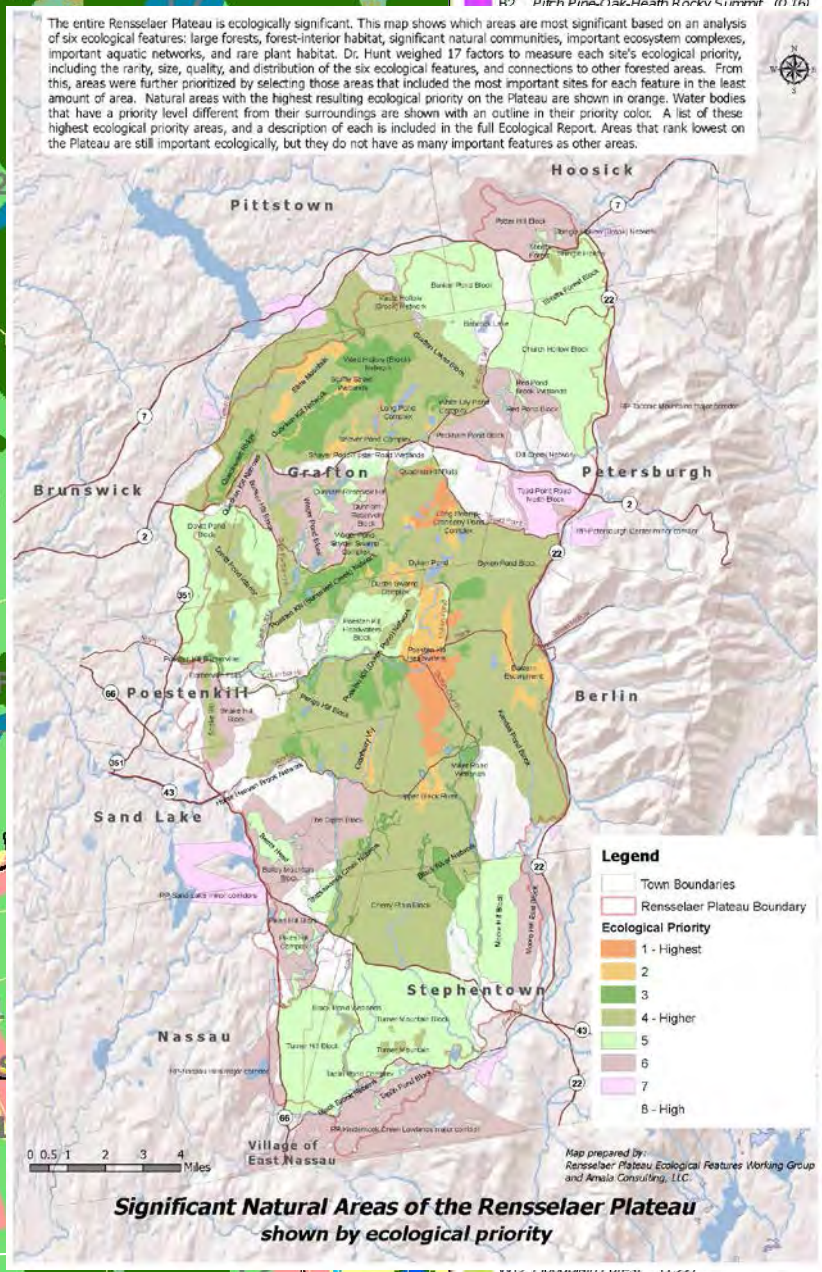
- Gather data, use town or regional plans to guide conservation and land-use decisions
  - Establishes priorities, community buy-in
- Consider habitat conservation *early* in the planning process
  - Creates predictable, less adversarial process
- Take a “big picture” view to prevent habitat fragmentation and maintain ecosystem services
  - Addresses major threats to regional natural resources

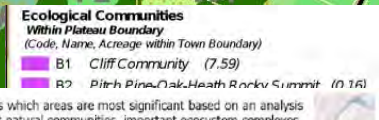


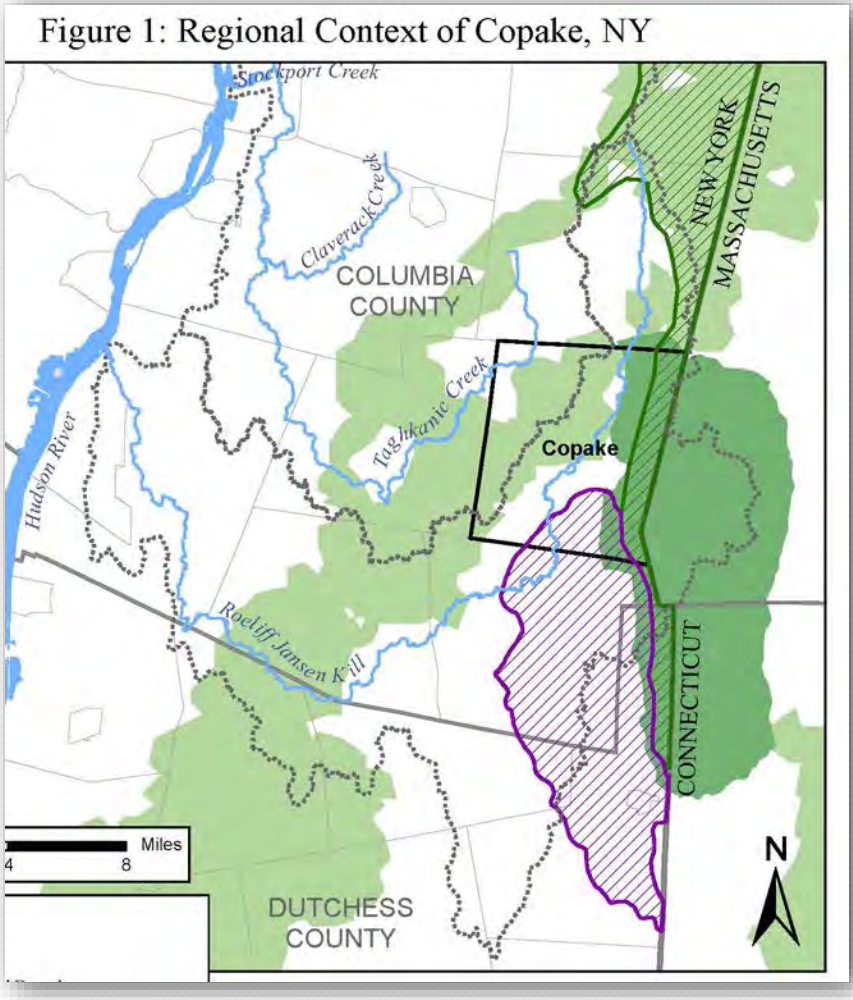

W14 Inland Non-Calcareous Lakeshore (5.91)
W16 Reedgrass Marsh (5.67)

2000 ft

# Estuary Program *Habitat Summaries* can help fill the gaps at the townwide scale

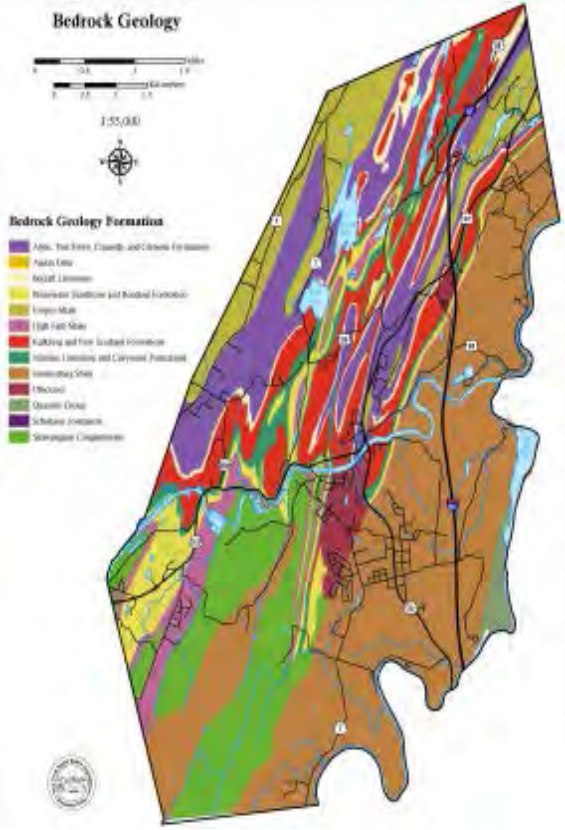
**Maps, Narrative, and Tables:**

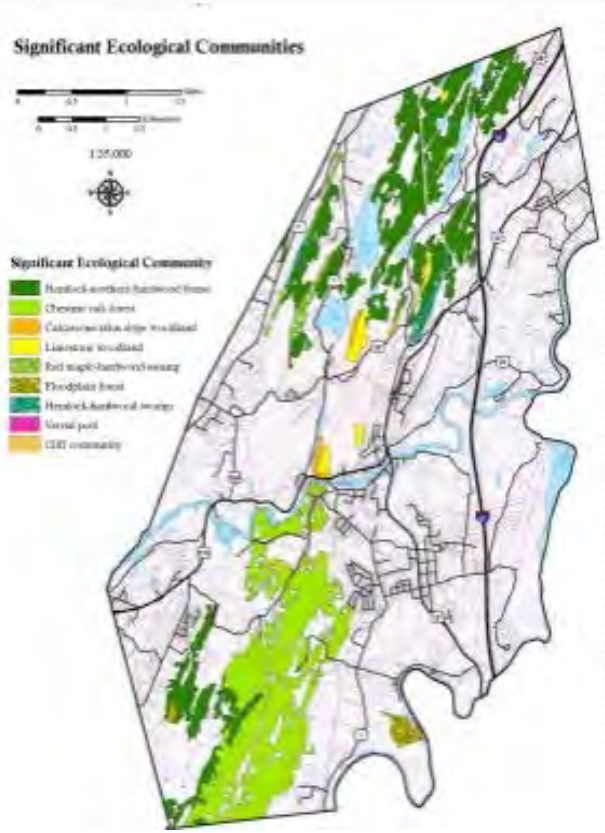
- **Regional Context**
- **Important Areas for Biodiversity**
- **Coastal and Shoreline Habitat**
- **Streams and Watersheds**
- **Wetlands**
- **Large Forests (200+ acres)**
- Grasslands and Shrublands
- Rare plants, animals, ecosystems
- Local data available from partners



# Build on the ecological maps to create a Natural Resources Inventory (NRI):

a summary of local physical and biological characteristics




Town of Rosendale NRI, 2010

# Recognize Important Natural Resources in your Comprehensive Plan

Provide specific policy statements regarding natural resources:


The Comprehensive Plan establishes a community's vision for the future and is the basis for zoning and land use decisions

*"Our town recognizes that wetlands and forests are vital to clean and abundant water"*

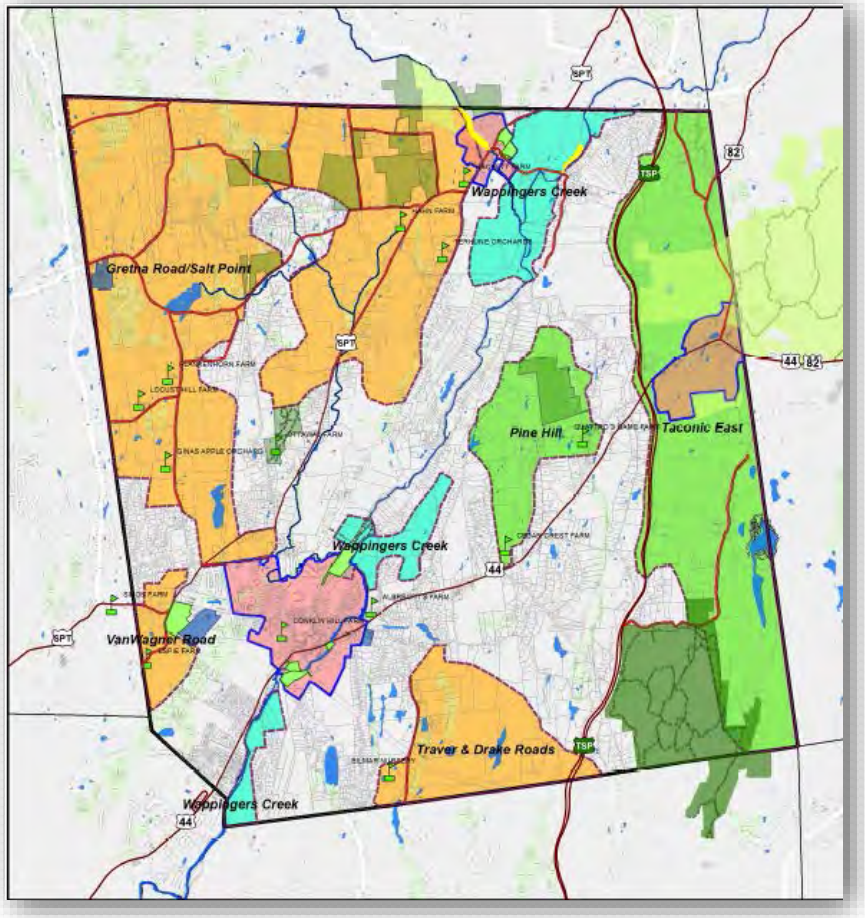
A sample goal might be:
*"To protect forest land for multiple-use forestry, including timber production, watershed management, fish and wildlife habitat, and recreation."*


## Identify conservation priorities in an Open Space Plan

- Creates a vision for the future of valuable natural resources and cultural assets.
- Lays out a strategy for achieving goals.

# Example: Town of Pleasant Valley Open Space Plan Priority Areas

Priority Conservation Areas




- Critical habitat areas
- Contiguous Forests
- Wetland complexes
- Water quality protection
- Working farmland
- Scenic resources

# Identify Opportunities for Intermunicipal Cooperation

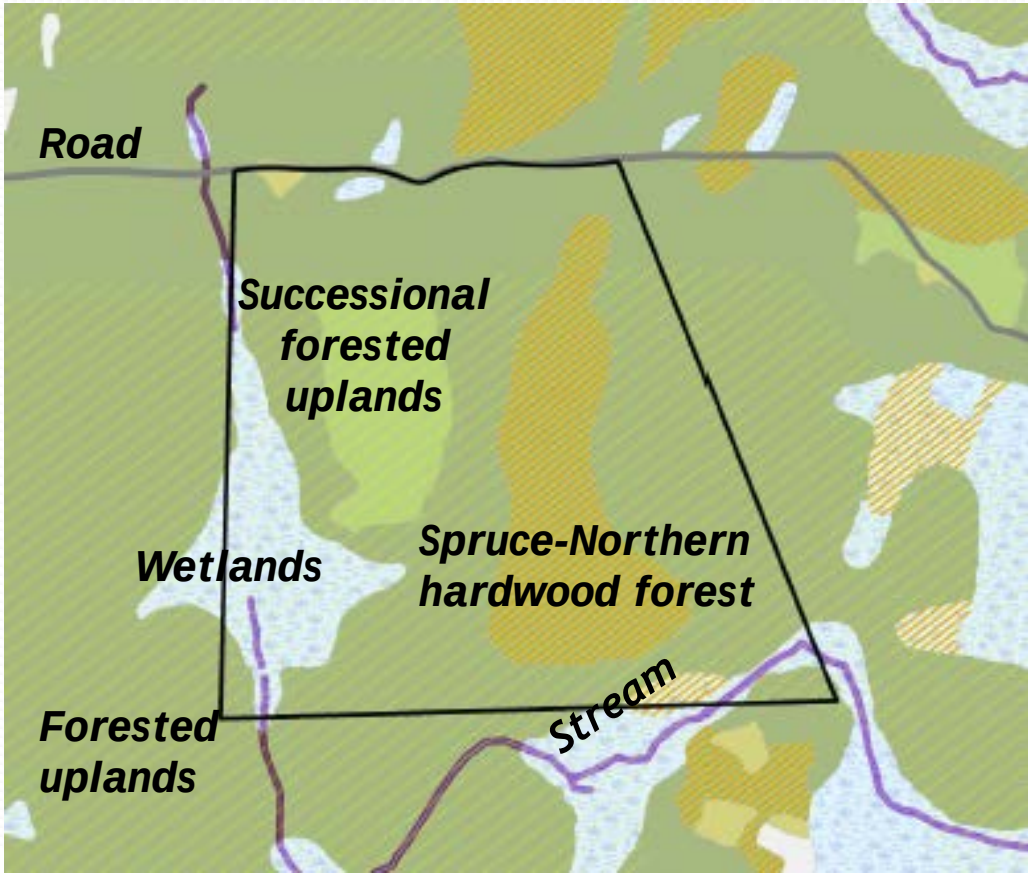
… because important resources don't stop at your town's boundary

## Benefits:

- More effective solutions to issues through comprehensive approaches and coordination of efforts
- Increased eligibility for many grants
- Examples: watershed management plans, open space plans, Scenic Byway designation…

# Raise questions about ecological resources during project review

- Review the RCP maps
- Site visits
- What resources are present on/near the site, and can potential impacts to them be minimized?



# Use SEQR authority to take a "hard look" at environmental impacts and address local concerns

1) identify relevant areas of environmental concern and thoroughly analyze them
2) determine if the action may have a significant adverse impact
3) support the determination with reasoned elaboration

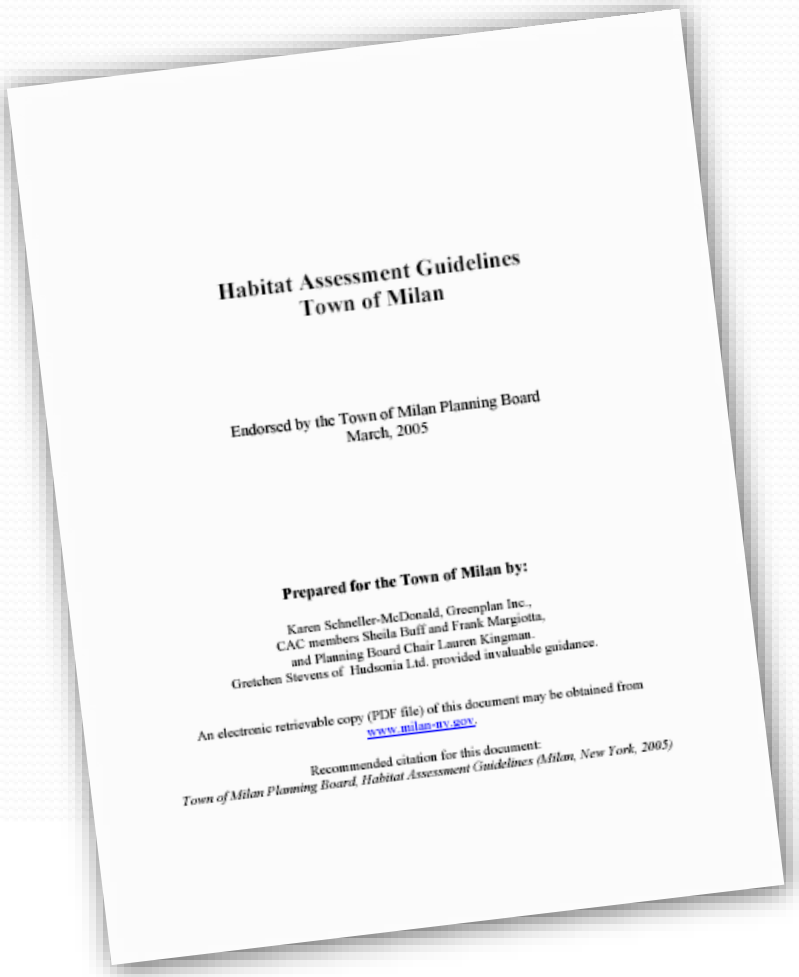
*Photo by L. Heady*

# Hold a pre-application meeting

prior to preparing or submitting any site plan, subdivision plat, or other formal drawing of a proposed project


Considering habitats early in the planning process creates a more efficient, standardized approach for boards and applicants.

# Adopt environmental review procedures that consider resources early in the process



Habitat Assessment Guidelines
Town of Milan

Endorsed by the Town of Milan Planning Board
March, 2005

**Prepared for the Town of Milan by:**

Karen Schneller-McDonald, Greenplan Inc.,
CAC members Sheila Baff and Frank Margiotta,
and Planning Board Chair Lauren Kingman.
Gretchen Stevens of Hudsonia Ltd. provided invaluable guidance.

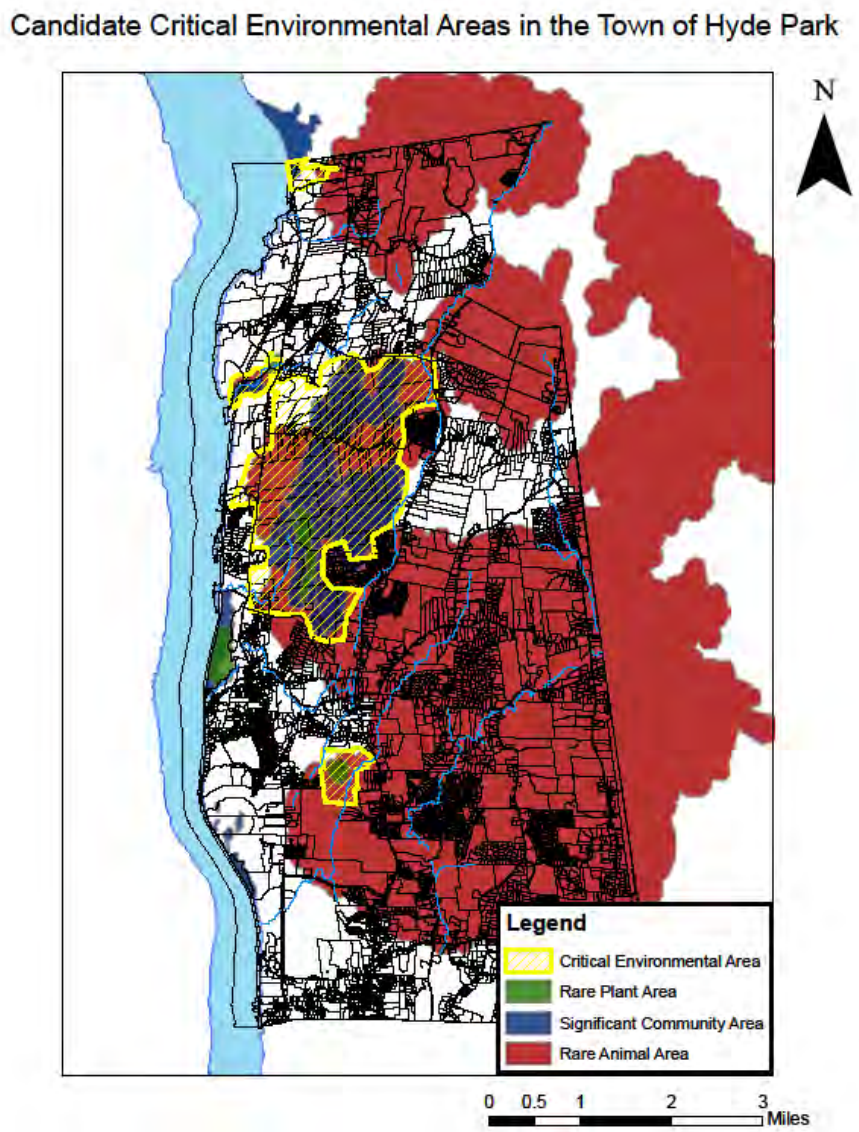
An electronic retrievable copy (PDF file) of this document may be obtained from
www.milan-ny.gov.

Recommended citation for this document:
*Town of Milan Planning Board, Habitat Assessment Guidelines (Milan, New York, 2005)*

## Example: Milan Habitat Assessment Guidelines

"Habitat assessments should be completed before sketch plan endorsement or initiation of the SEQR process…

…This approach minimizes project review delays and expenses."

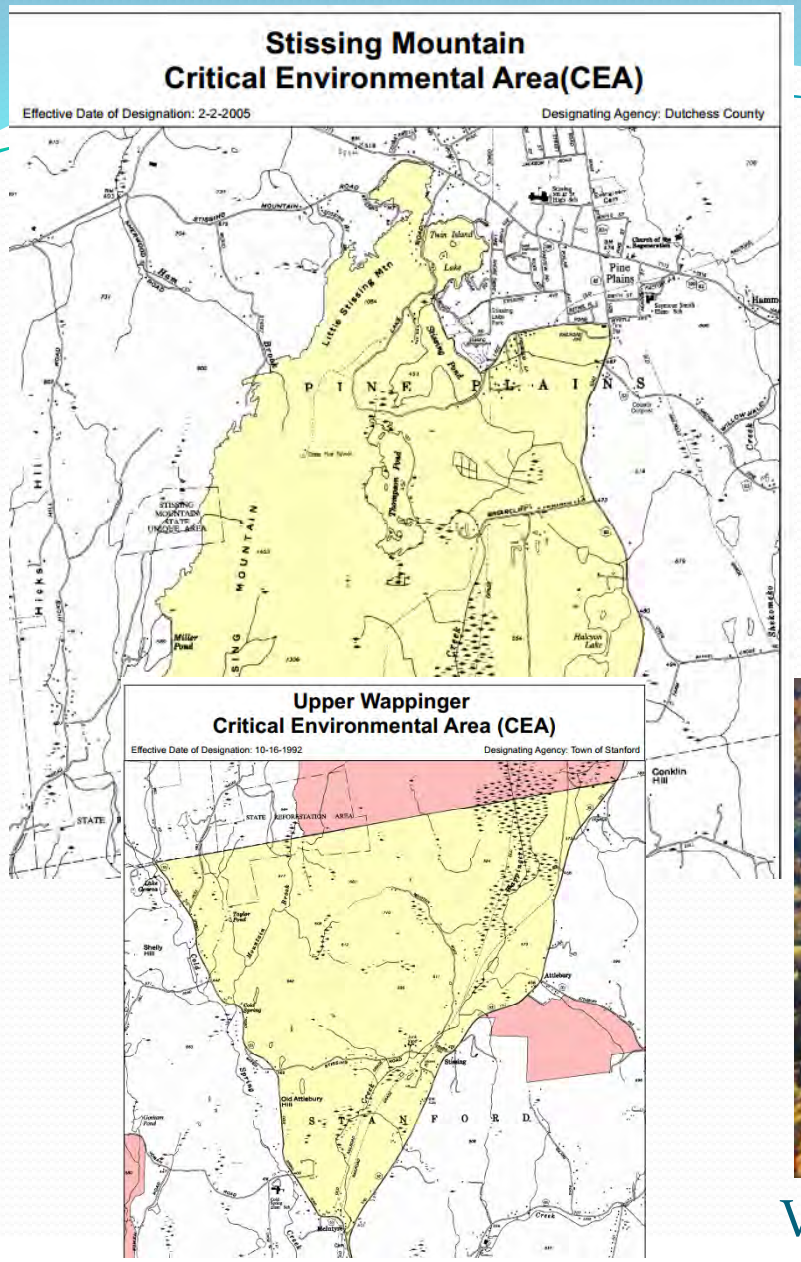



Town of Hyde Park CEAs

# Designate Critical Environmental Areas

A specific geographic area designated by a state or local agency as having **exceptional or unique environmental or cultural characteristics**.

- Brings awareness to local priority resources




# Example: Stissing Mountain CEAs

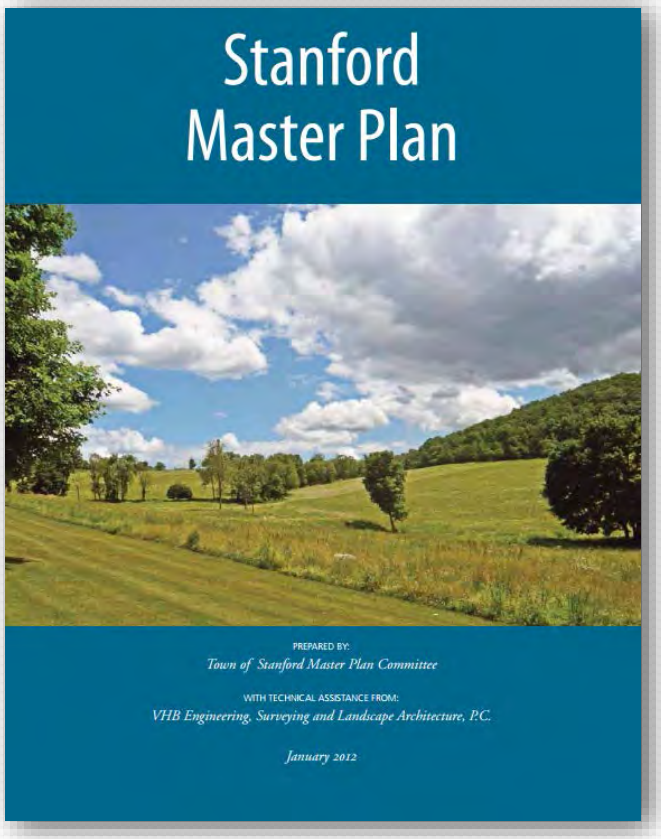
- Mountain area – steep slopes
- Large forest ecosystem
- Exceptional wildlife habitat


View from Stissing Mountain fire tower

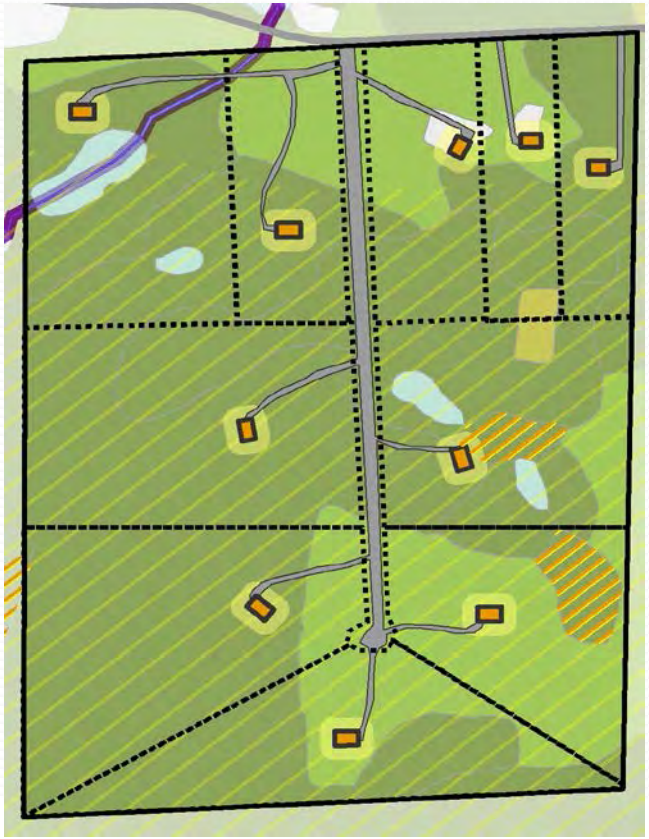
# Local SEQR authority can bring attention to local conservation priorities

Recognizing that state-defined Type 1 actions rarely apply towards protecting rural character and natural resources, the **Town of Stanford** proposed a list of local Type 1 actions, including:

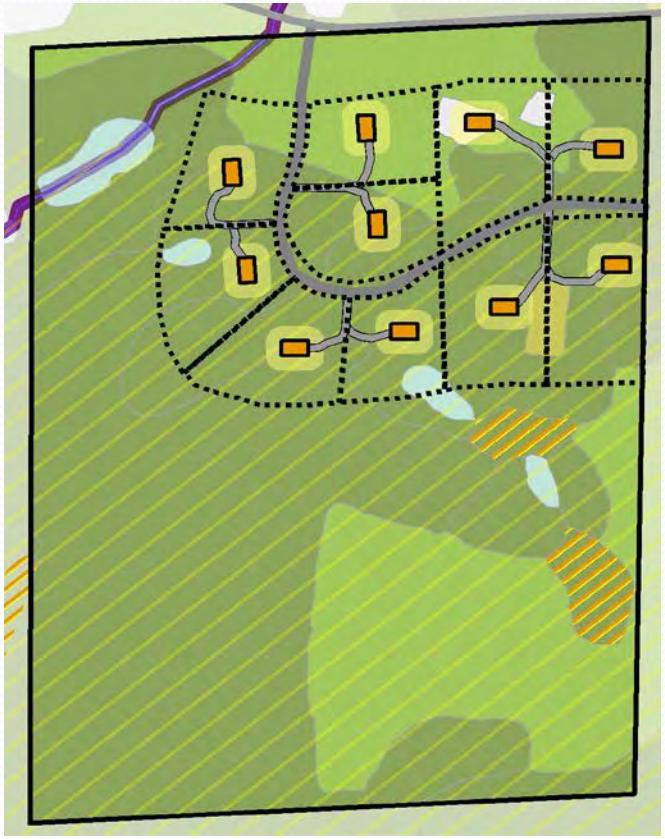
- Actions within CEAs
- Actions within wetland or stream buffer zones



# Allow flexible lot sizes in Subdivision Regulations -- and use resource analysis to help determine which areas to build on and which to conserve



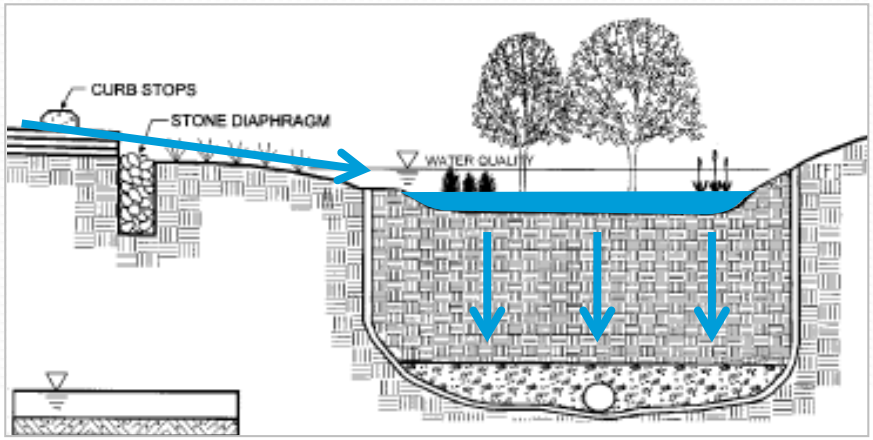
***Conventional***



***Flexible alternative***

# Use stormwater management practices to reduce pressure on wetlands and streams

- Direct stormwater runoff from paved areas or fertilized turf through oil-water separators and into detention basins or “rain gardens” instead of directly into ditches, streams, ponds, or wetlands.
- Conserve natural areas on site




NYS Stormwater Management Design Manual

Bioretention area, Vassar College

# Use zoning to conserve natural areas

Zoning controls the type and intensity of land use within defined areas

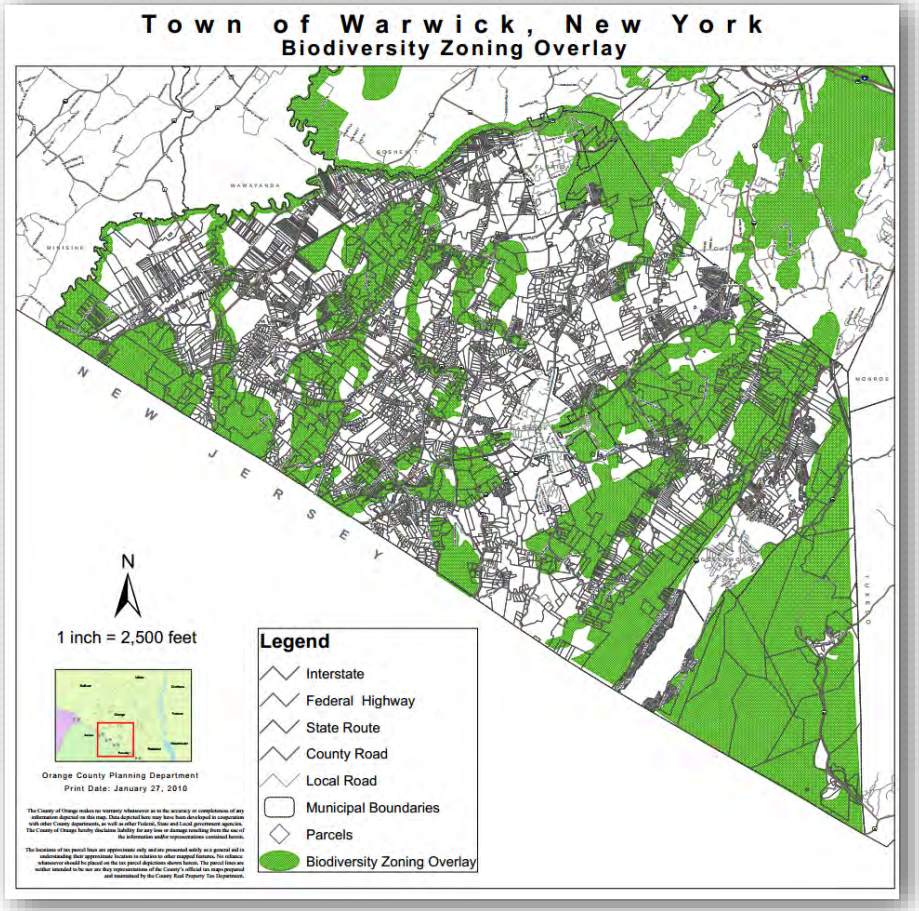
Photo by L. Heady

**Examples:**

- Identify forestry as a use for appropriate districts
- Establish a forestry district (10-20 ac density)
- Remove sensitive areas from density calculations
- Require wetland and stream setbacks

# Overlay Zoning

## Adds new standards to density and uses allowed in the underlying zoning




- Encourage development away from natural areas
  - Steep slopes
  - Woodlands
  - Aquifers
  - Wetlands
  - Stream Corridors
- Prohibit incompatible uses
- Define which uses need a site plan review

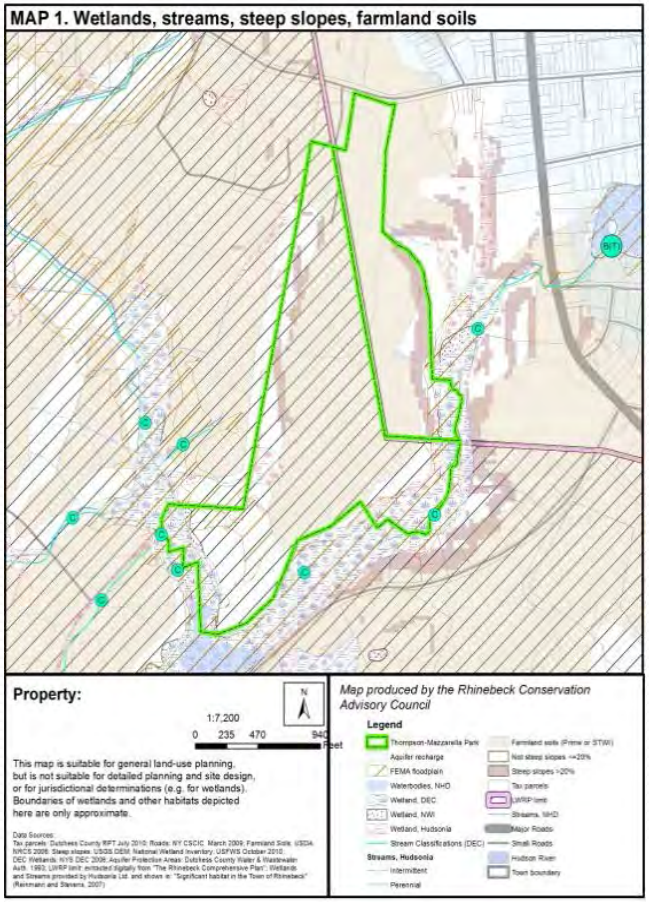
# Wetland and Watercourse Ordinances

- Extend protection to **small streams**, and **small, isolated wetlands** that are of critical importance to ecosystems and water supplies
- Protect **all wetlands** in a municipality (or those above a size threshold), not just on new development sites
- Protect adjacent buffer areas


Photo by S. Cuppett


Photo by B. Roessler

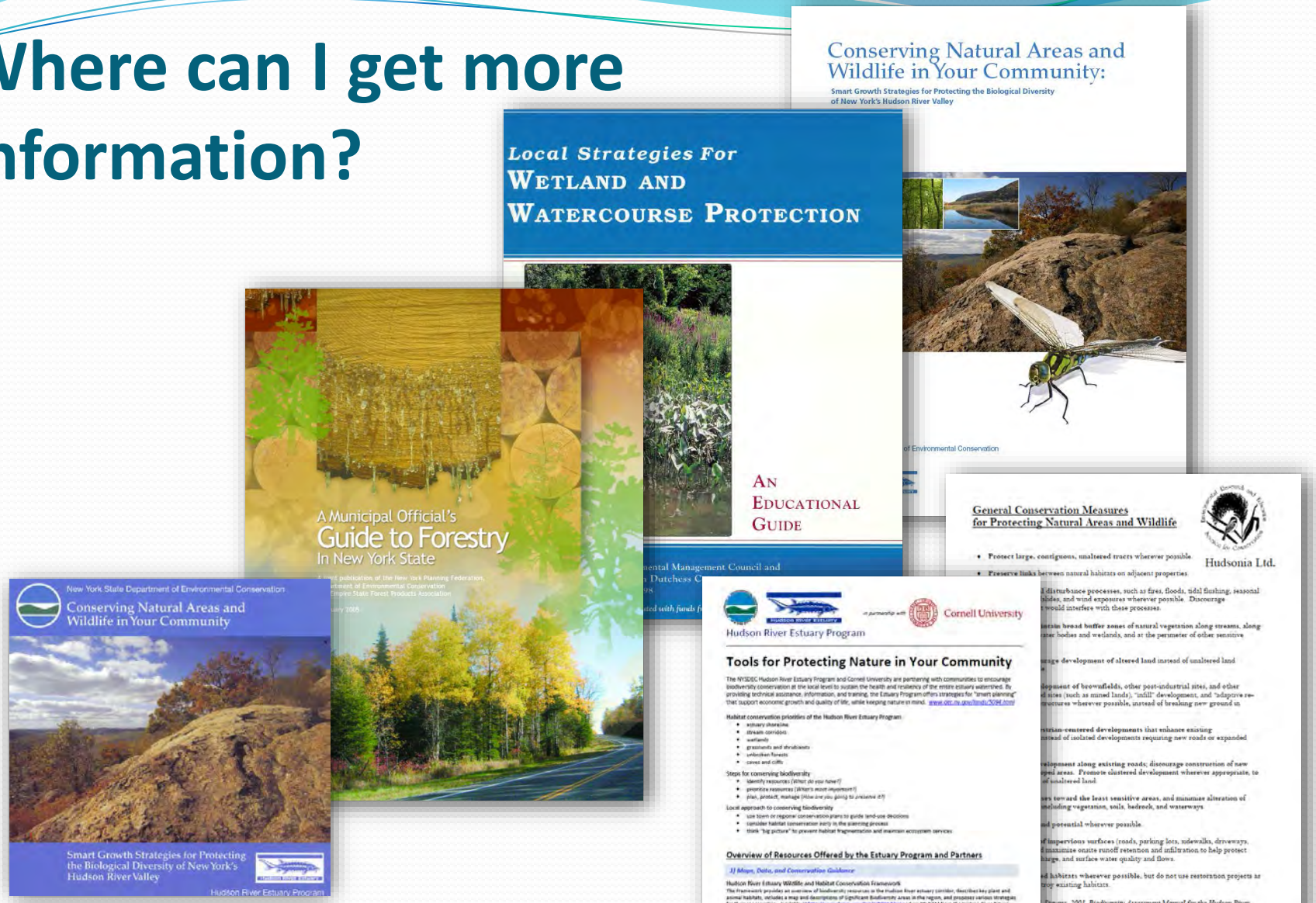
# Establish a Conservation Advisory Council, or use your existing one to help the Planning Board





CACs conduct research and advise town agencies on the development, management, and protection of natural resources.

# Where can I get more information?



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