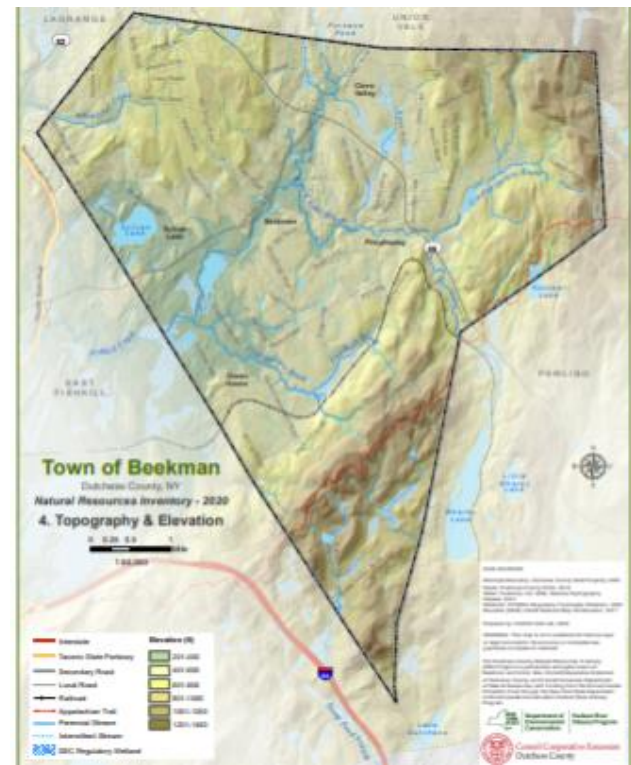




Department of  
Environmental  
Conservation

# Town of Beekman Natural Resources Inventory Project



**Shannon A. Fatum**  
Conservation Advisory Council Member  
Hudson River Estuary Program/Cornell University  
April 15, 2022



Cornell University



Department of  
Environmental  
Conservation

Hudson River  
Estuary Program

# Project Team

Town of Beekman CAC

Town of Union Vale

Hudson River Estuary Program (DEC and Cornell)

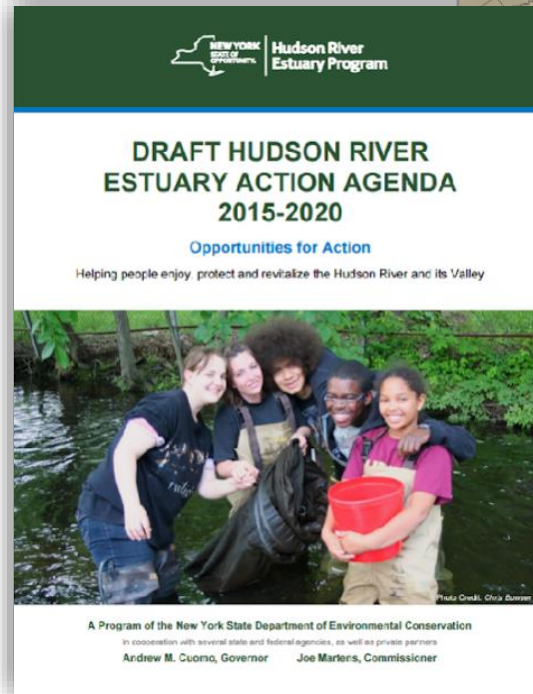
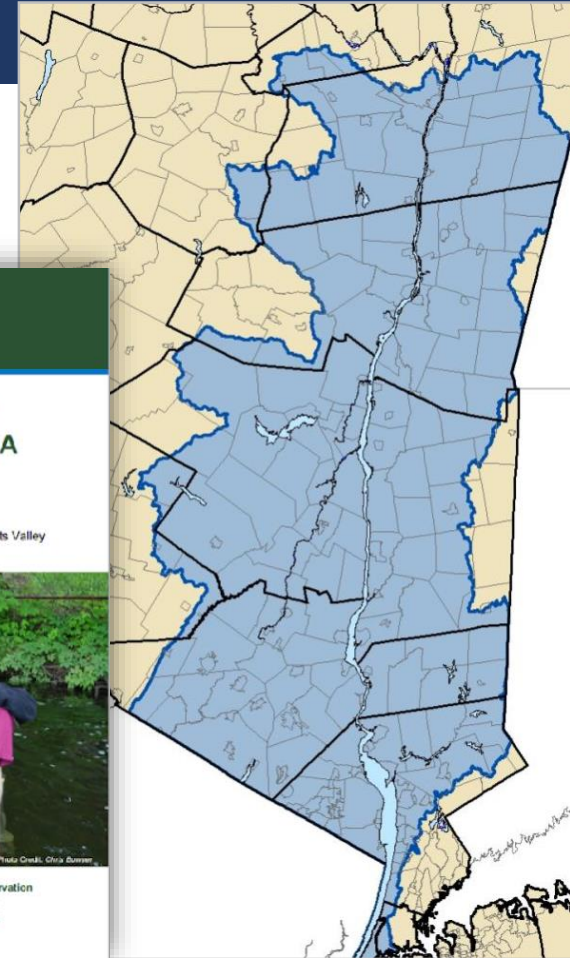
Cornell Cooperative Extension Dutchess County



# 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



Department of  
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Hudson River  
Estuary Program

identify what  
you have



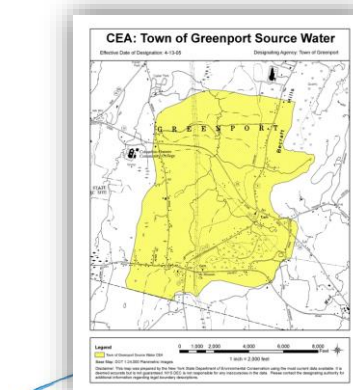
prioritize



plan, protect,  
manage

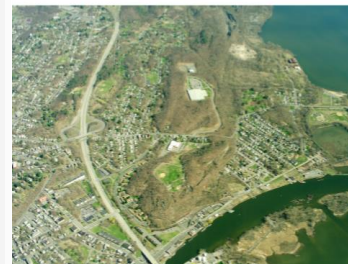


Photo by Nate Nardi-Cyrus



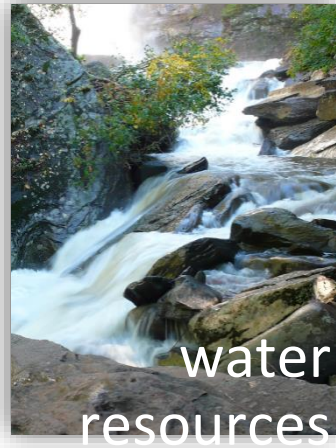
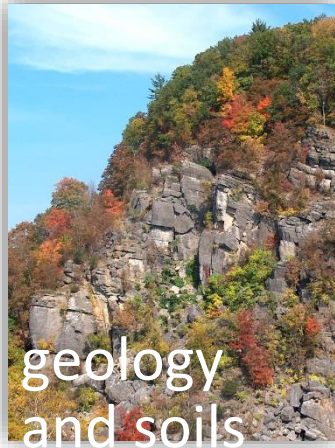
Images courtesy of Randall Arendt

City of Kingston, New York  
**OPEN SPACE PLAN**



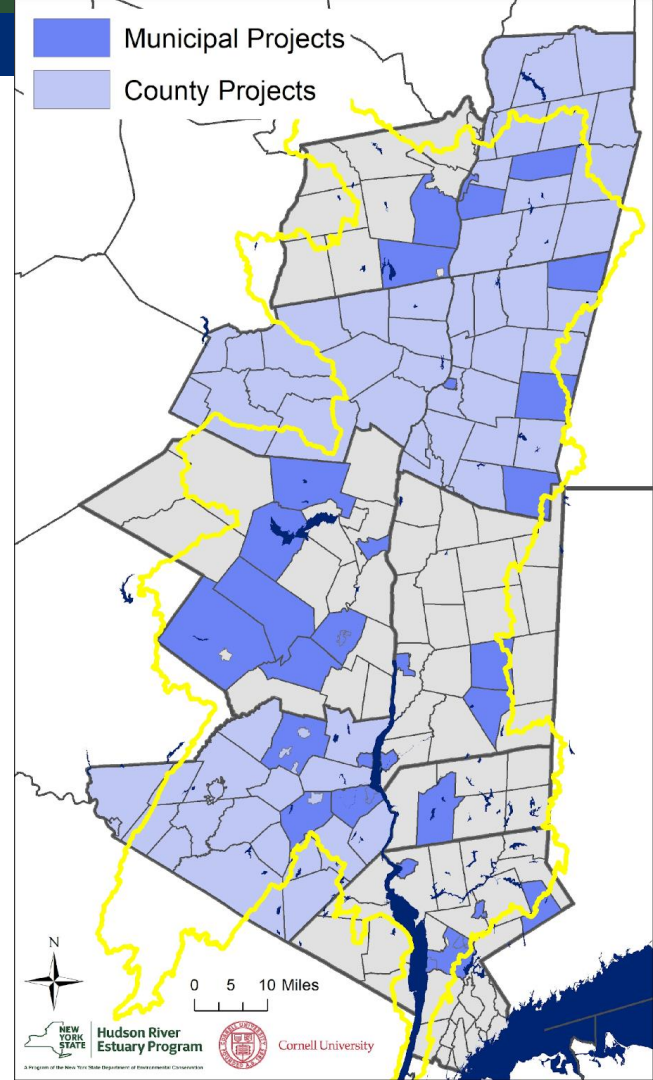
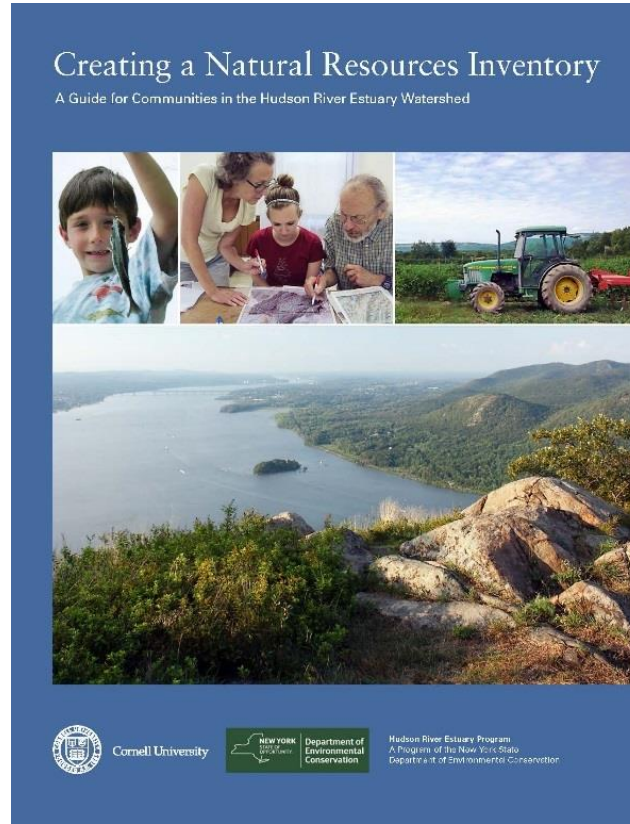
A conservation subdivision plan for the same site.

# What is a Natural Resources Inventory (NRI)?



# ~33 Natural Resource Inventories

identify what  
you have



# Beekman Natural Resources Inventory Goals



- cultivate stewardship of resources
- Inform planning, designing, and reviewing new development
- foundation for plans and policies to protect critical resources

# Pre-COVID Meetings



Nate Nardi-Cyrus



Department of  
Environmental  
Conservation

# Post-COVID

# Meetings

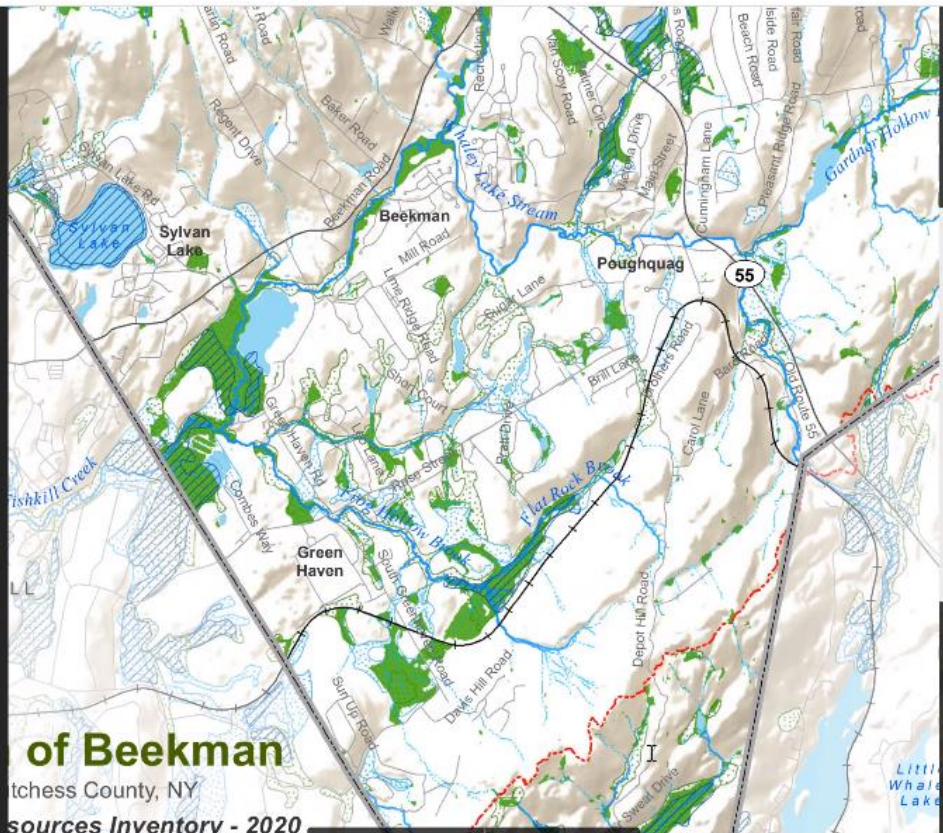
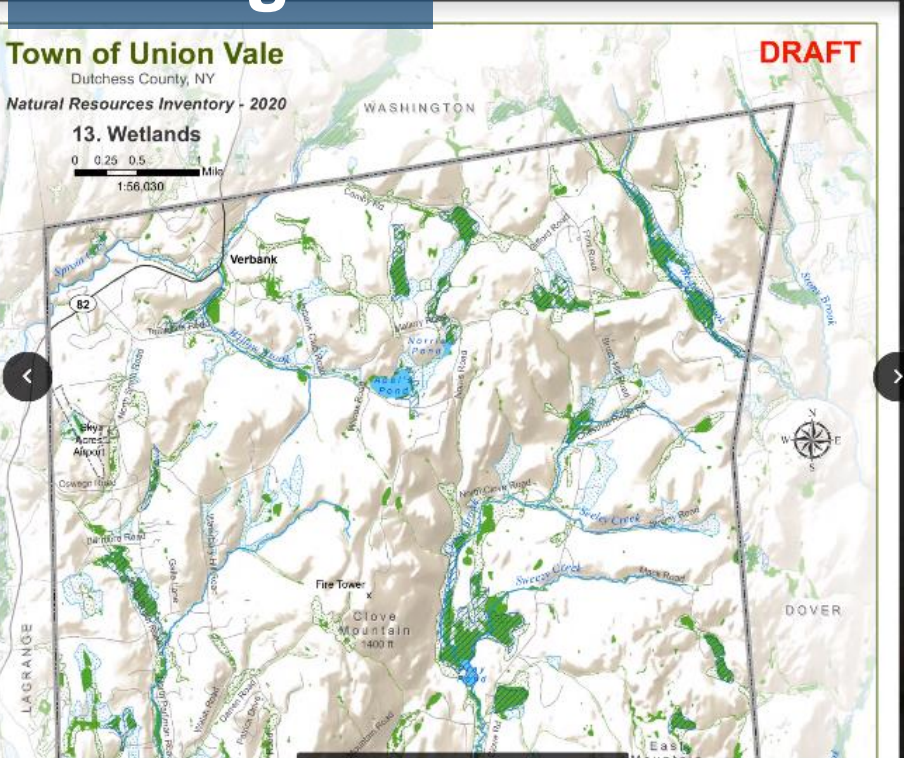
## Town of Union Vale

Dutchess County, NY

Natural Resources Inventory - 2020

### 13. Wetlands

0 0.25 0.5 1 Mile  
1:56,030



## of Beekman

Dutchess County, NY

Natural Resources Inventory - 2020

### 13. Wetlands

# 19 Natural Resource Inventory Maps

- With and Without Parcels
- Written descriptions of each map



Wetlands (Map 13)

Wetlands are areas saturated by surface or groundwater sufficient to support distinctive vegetation adapted for life in saturated soil conditions.<sup>48</sup> There are many types of freshwater wetlands in Beekman, including wet meadows, emergent marsh, forested and shrub swamps, vernal pools, floating and submerged vegetation, and open water. In addition to providing critical habitat for many plants and animals, wetlands help to control flooding, recharge groundwater, filter and purify surface water, and provide recreation opportunities. The upland area surrounding a wetland is essential to its survival and function; both may diminish when a wetland is surrounded by pavement, buildings, and pollution-generating or other incompatible land uses.<sup>49</sup>

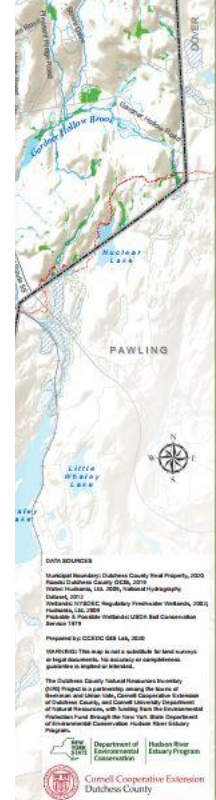
#### Wetlands:

- provide critical habitat
- control flooding
- recharge ground water
- filter and purify surface water
- store carbon
- provide recreational opportunities

#### Wetland Data

The Wetlands Map shows information from several existing sources that provide approximate locations and extent of wetlands. Open water habitats are symbolized in blue as “waterbodies.” **New York State Freshwater Wetlands** only include wetlands larger than 12.4 acres, unless designated “of unusual local importance.” Many of the New York State Department of Environmental Conservation’s (DEC) wetland maps are outdated and have major inaccuracies.<sup>50</sup> In 2009, **Hudsonia** created a detailed habitat map and accompanying report, which identified 14 types of wetlands, comprising 9% of the Town. The Wetlands Map aggregates the different wetland types into a single layer, but more detailed information is available in Figure 10 (pg. 100) of the [original report](#). Unusual wetland habitats observed included fens, buttonbush pools, and kettle shrub pools.<sup>51</sup>

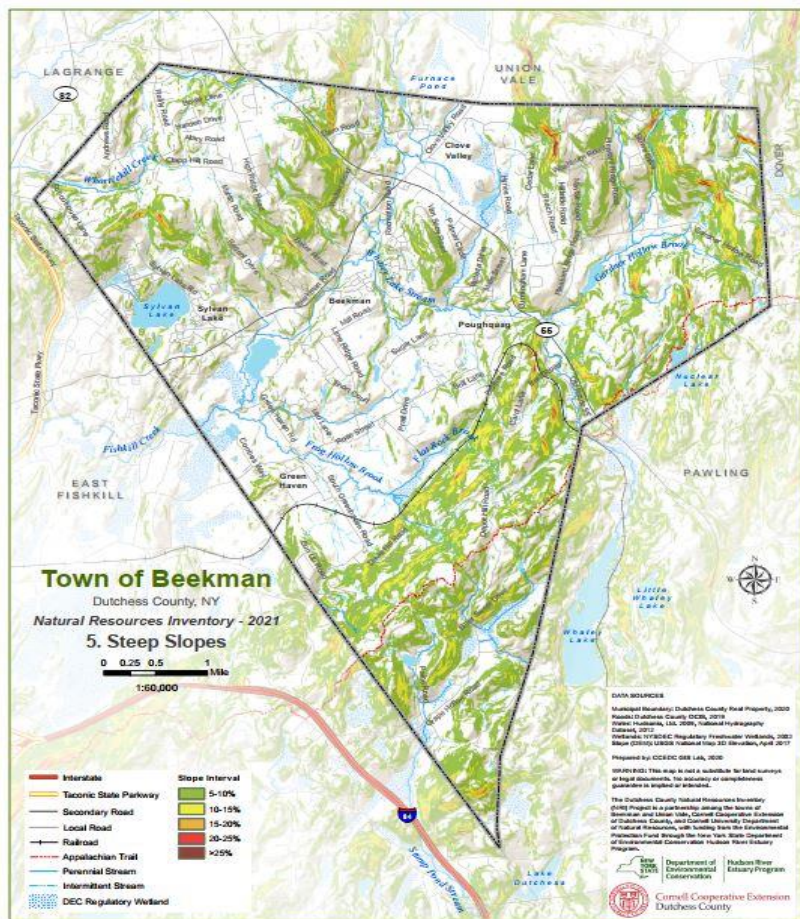
County soil maps are also a good source for predicting the location of potential wetlands. Soils classified in the county soil survey as very poorly drained or poorly drained are good indicators of **probable wetland areas**, and soils classified as somewhat poorly drained may indicate **possible wetland areas** (see Soils section for further discussion of soil properties).<sup>52</sup> Note that the probable and possible wetland areas cover a greater area than Hudsonia and DEC wetland layers. Likewise, soil units are only mapped



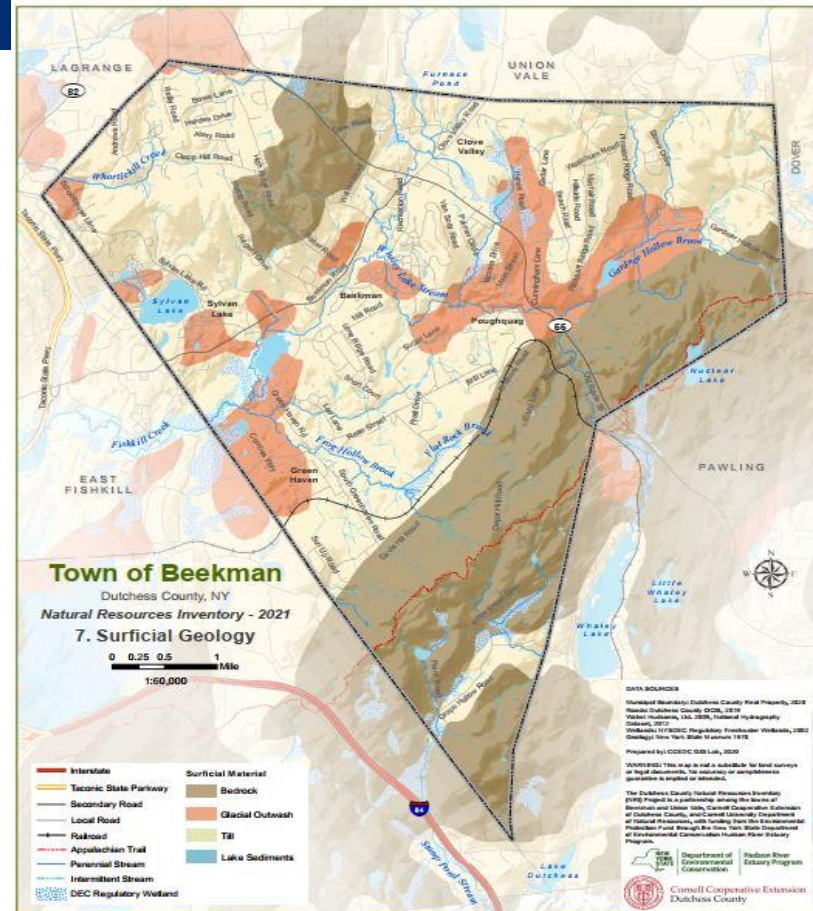
# Physical Setting

- Maps included in this section:
  - Topography and Elevation
  - Steep Slopes
  - Bedrock Geology
  - Surficial Geology





**Steep Slopes**

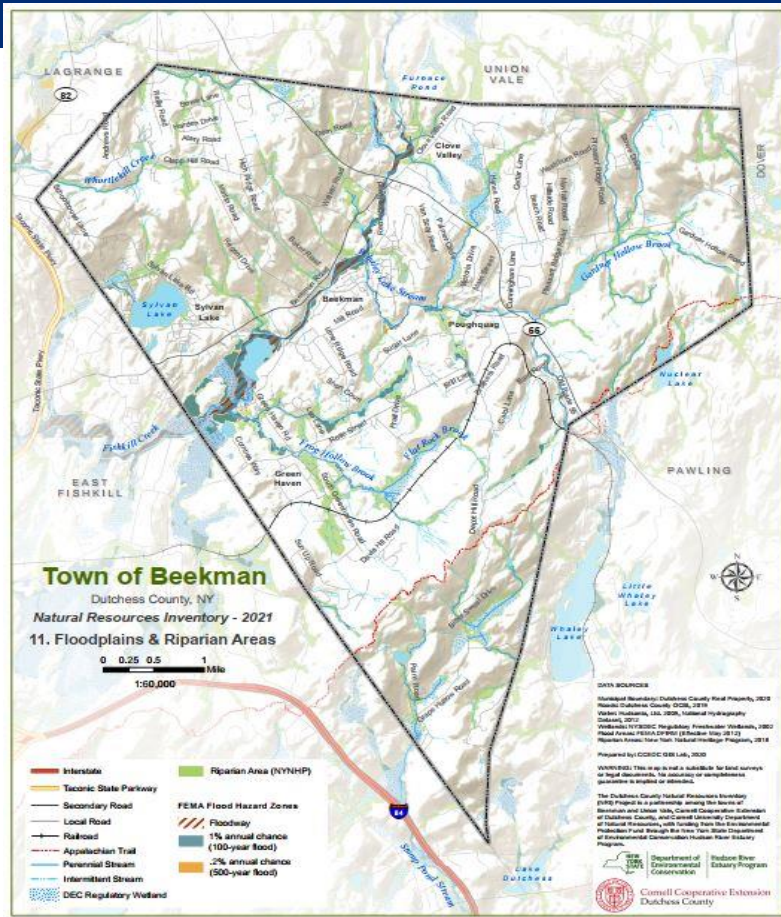


**Surficial Geology**

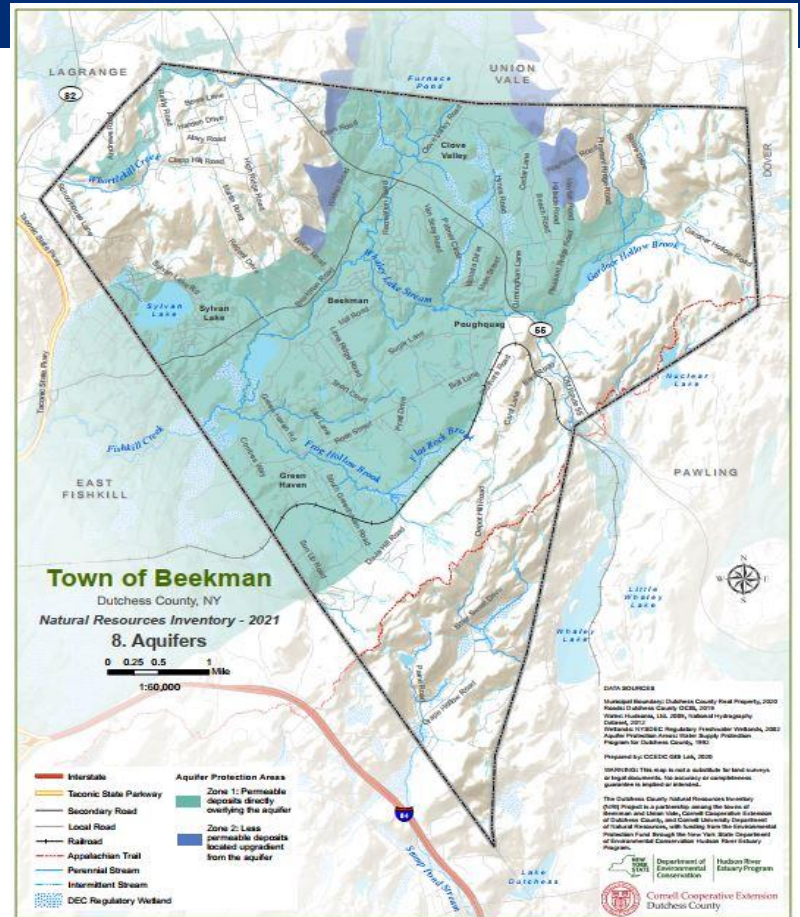
# Water Resources

- Maps included in this section:
  - Aquifers
  - Stream & Watersheds
  - Water Quality Classification
  - Floodplains & Riparian Areas
  - Stream Habitats
  - Wetlands





**Floodplains and Riparian Areas**

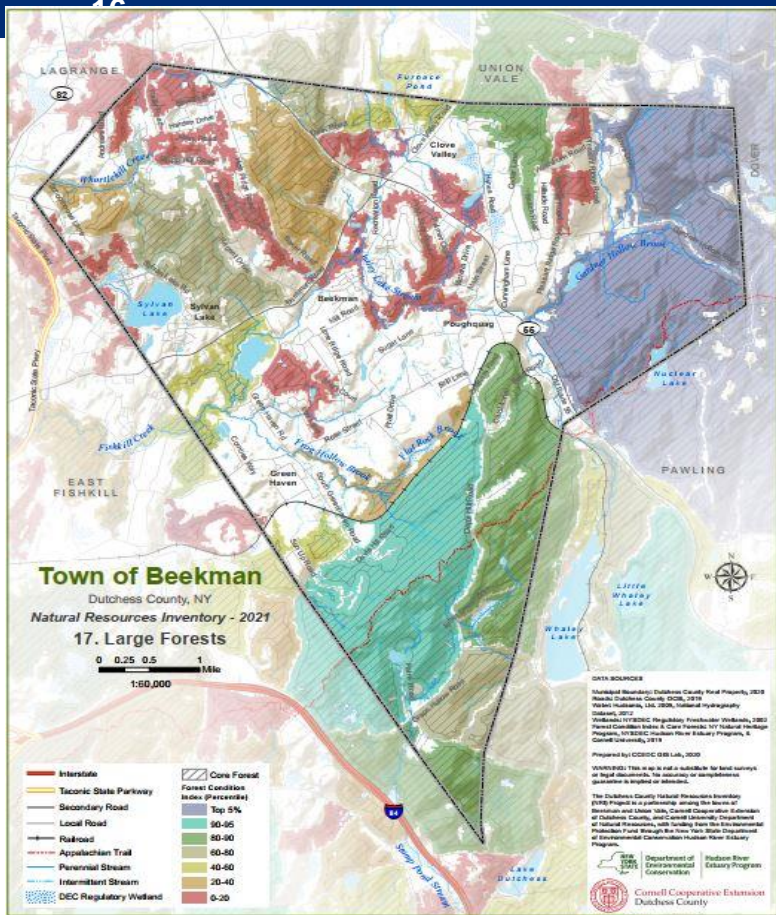


**Aquifers**

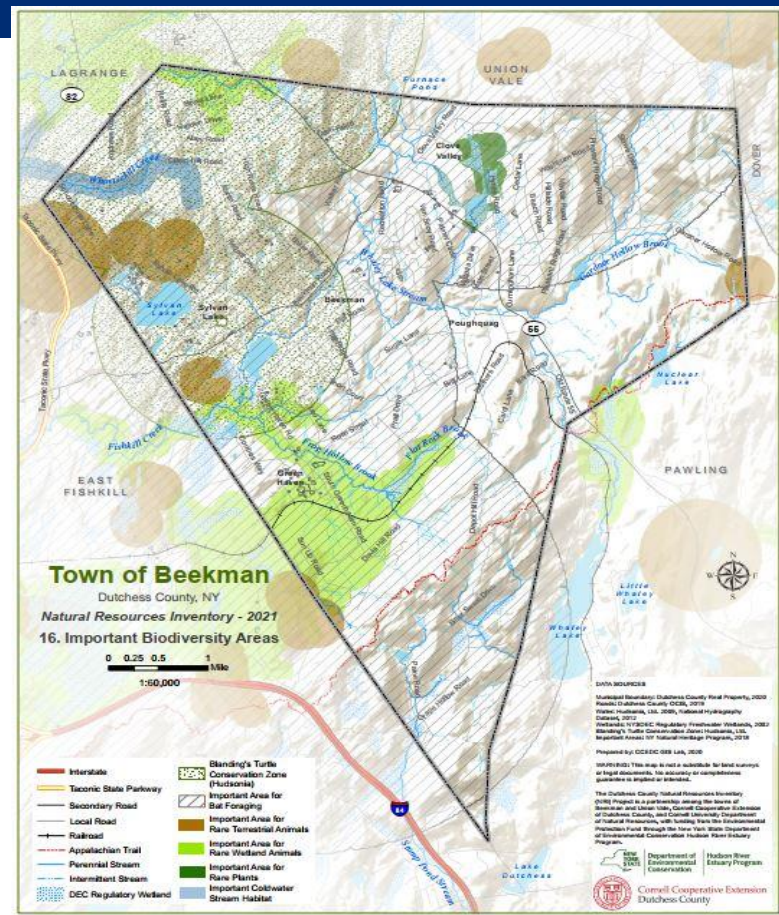
# Habitats & Wildlife

- Maps included in this section:
  - Landscape Context
  - Significant Habitats
  - Important Biodiversity Areas
  - Large Forests





Large Forests

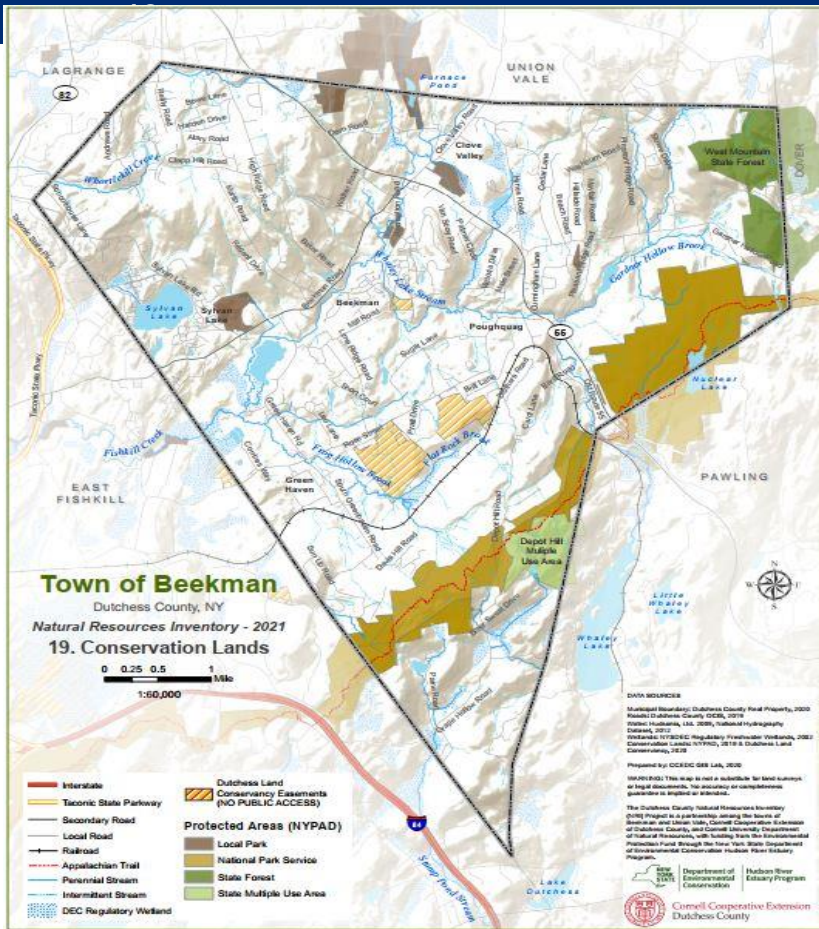


Important Biodiversity Areas

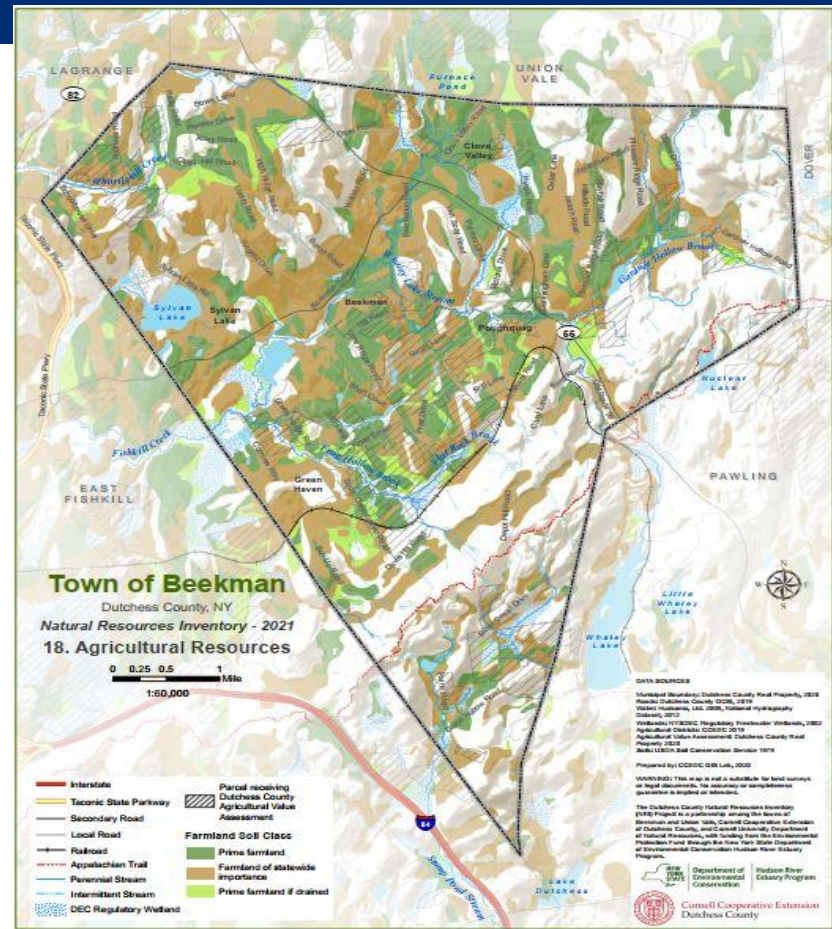
# Land Use

- Maps included in this section:
  - Agricultural Resources
  - Conservation Lands





# Conservation Lands



# Agricultural Resources

# NR<sup>1</sup> Project Timeline

**February 2020**

Town Board  
resolution

**Summer 2020**

Draft map creation  
& review

**Fall/Winter 2020**

Narrative development  
& town/public input

**Spring 2021**

Finalization of  
maps and narrative



prioritize



plan, protect,  
manage

Examples:

# Comprehensive Plan / Zoning Updates



**Cornwall Natural Resources Inventory:**  
Informing the Management of Our Natural,  
Historic, and Cultural Resources

Cornwall Conservation Advisory Council  
December 2019

prioritize

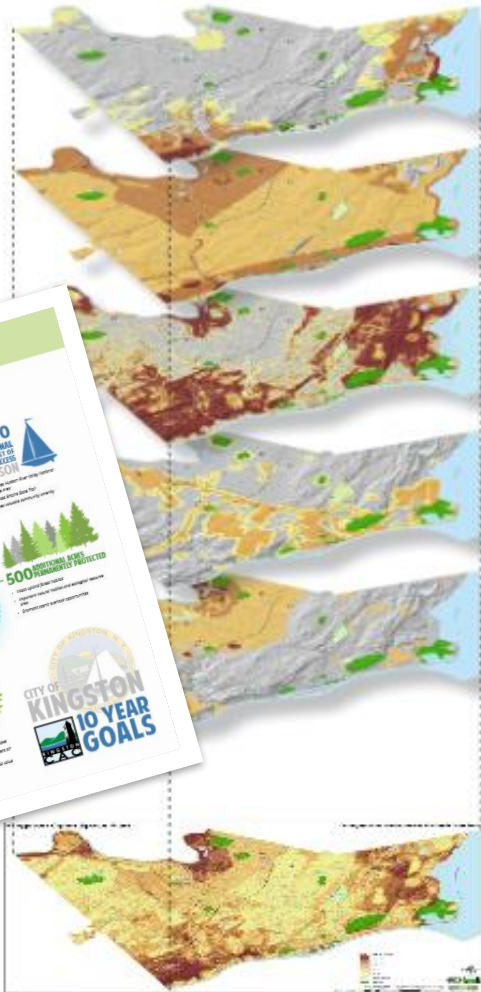
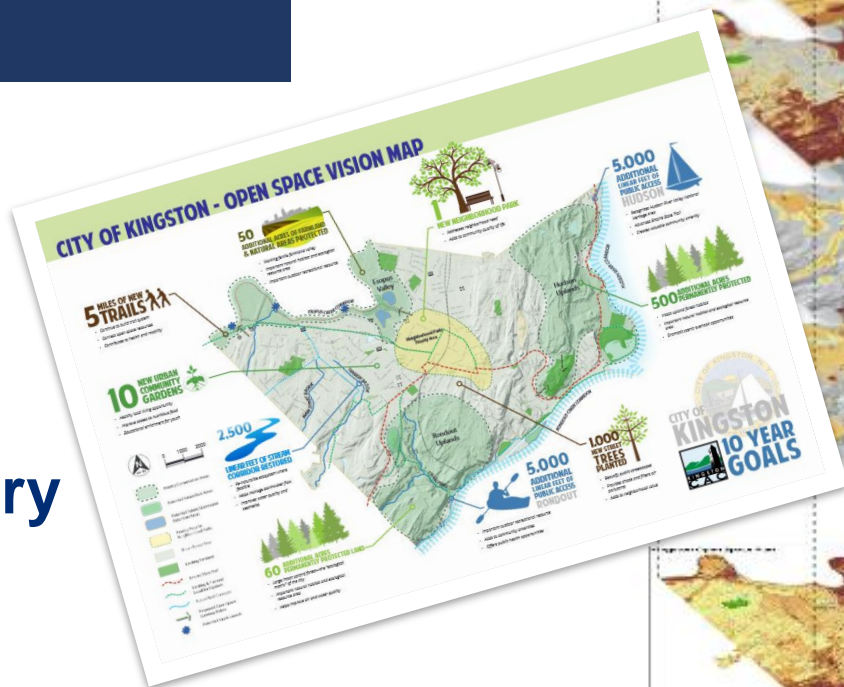


plan, protect,  
manage

Examples:

# Planning

- Open Space Plan
- Open Space Inventory



prioritize



plan, protect,  
manage

Examples:

# Checklists

- Applicant
- Planning Board
- Other Committees

## TOWN OF GARDINER SITE PLAN APPLICATION CHECKLIST

This list is provided as a guide only for the convenience of the Applicant. The Town of Gardiner Planning Board may require additional notes or revisions prior to granting approval.

1. Complete Pages 1 through 3 of the Application Form Page 3.
2. Complete Agricultural Exemption Form
3. Complete Certificate of Title
4. Applicant/Owner Information
5. Short Form EAF (Optional)
6. Four Sets of plans (one set for the Planning Board, one set for the Planning Board, one set for the Planning Board, one set for the Planning Board)
7. SEPARATE CHECKLISTS
  - Site Plan Form
  - Site Plan Form
  - Escrow - 1

- Site Plan Form
  - Site Plan Form
  - Escrow - 1
- \*See Attachment

### Town of Rhinebeck Site Resource Analysis Assessment

Name of subdivision: \_\_\_\_\_

Address: \_\_\_\_\_

	Yes	No	Not Sure
Are there streams, wetlands, waterbodies or watercourses that require protective buffer areas?			
Is there active farmland on the parcel(s)?			
Will the active farmland be preserved?			
Is there active farmland contiguous to or within 500 feet of the subject parcel(s)?			
Is this an Agricultural Exempt parcel(s)?			
Are there ridgelines that the Town desires to be kept clear of development?			
Could development alter the visual character from offsite areas dramatically?			
Could development alter viewshed vantage points 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 habitats or wildlife migration areas?			
Do any of these significant natural areas extend into abutting properties?			
Have mitigation measures been discussed?			
Are there stone walls and rock outcroppings on the site?			
Is the parcel adjacent to a public recreational area?			
Are there possibilities for walking, biking and/or trail connections?			
Are there special cultural, archaeological and/or historic features that should be preserved?			
Is the parcel adjacent to or within a National, State or locally designated Historic site or district?			
Is the parcel adjacent to or within an officially designated Scenic District or Scenic Road?			
Is the parcel adjacent to or within an officially designated Critical Environmental Area (CEA)?			
Is the parcel within the Local Waterfront Revitalization Area?			
Can the development be connected to a community water supply system?			
Can the development be connected to a community sewage disposal system?			
Will affordable housing be addressed by the subdivision?			

Priority resources that should be preserved on the site:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Recommendations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Date of Planning Board site visit: \_\_\_\_\_

prioritize

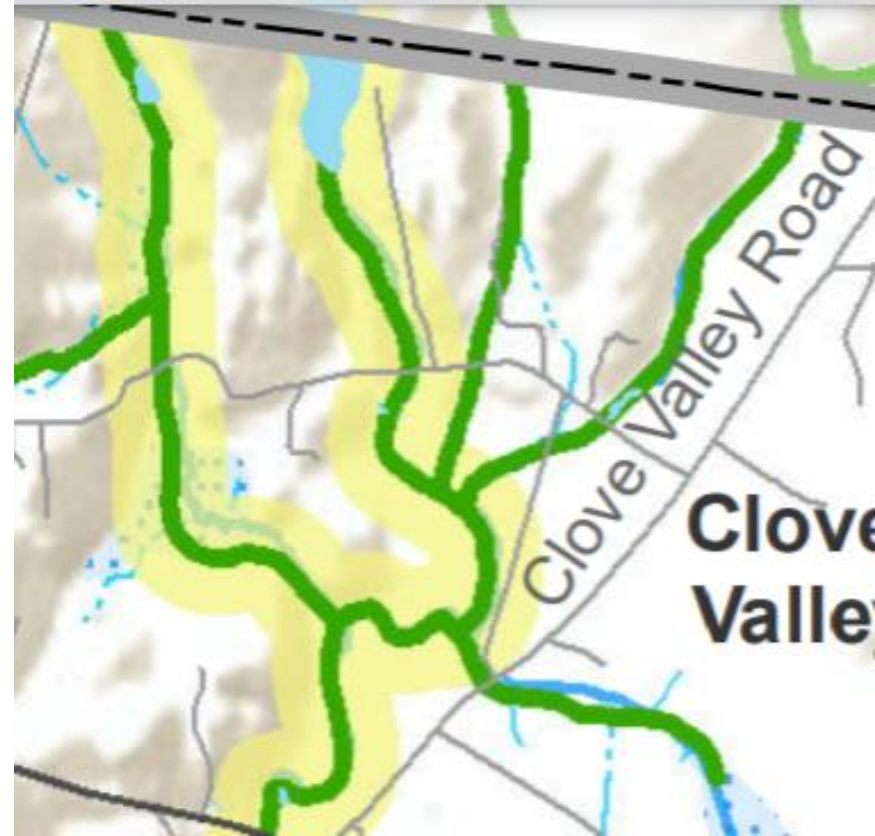


plan, protect,  
manage

**Examples:**

## **Regulation**

- Establishing jurisdiction
- Communicating w/  
applicants



# Access to Town of Beekman's NRI

[Town of Beekman - Town Documents](#)

Send comments to:

**Shannon Fatum** - [sfatum@gmail.com](mailto:sfatum@gmail.com)



Department of  
Environmental  
Conservation

25  
**Questions?**

**Shannon A. Fatum**

*Conservation Advisory Council  
Member*

*Town of Beekman*

*Sfatum@gmail.com*



**Hudson River  
Estuary Program**

A Program of the New York State Department of Environmental Conservation



**Cornell University**



**Department of  
Environmental  
Conservation**