Nature Across Boundaries

Introduction

November 6, 2017

Laura Heady
Conservation and Land Use Coordinator
NYSDEC Hudson River Estuary Program and Cornell University

NEW YORK STATE OF OPPORTUNITY | Hudson River Estuary Program
A Program of the New York State Department of Environmental Conservation

Cornell University

Photo: L. Heady

Why *Nature Across Boundaries*?

Shawangunk Ridge

Photos: L. Heady

Catskill Mountains

Photo: L. Heady

Hudson Highlands

Photo: L. Heady

Albany Pine Bush

Photo: www.albanypinebush.org

Shawangunk Grasslands

Photo: L. Heady

Rensselaer Plateau

Photo: Nate Simms

Bashakill Wetland

Photos: L. Heady

The Great Swamp

Photo: www.frogs-ny.org

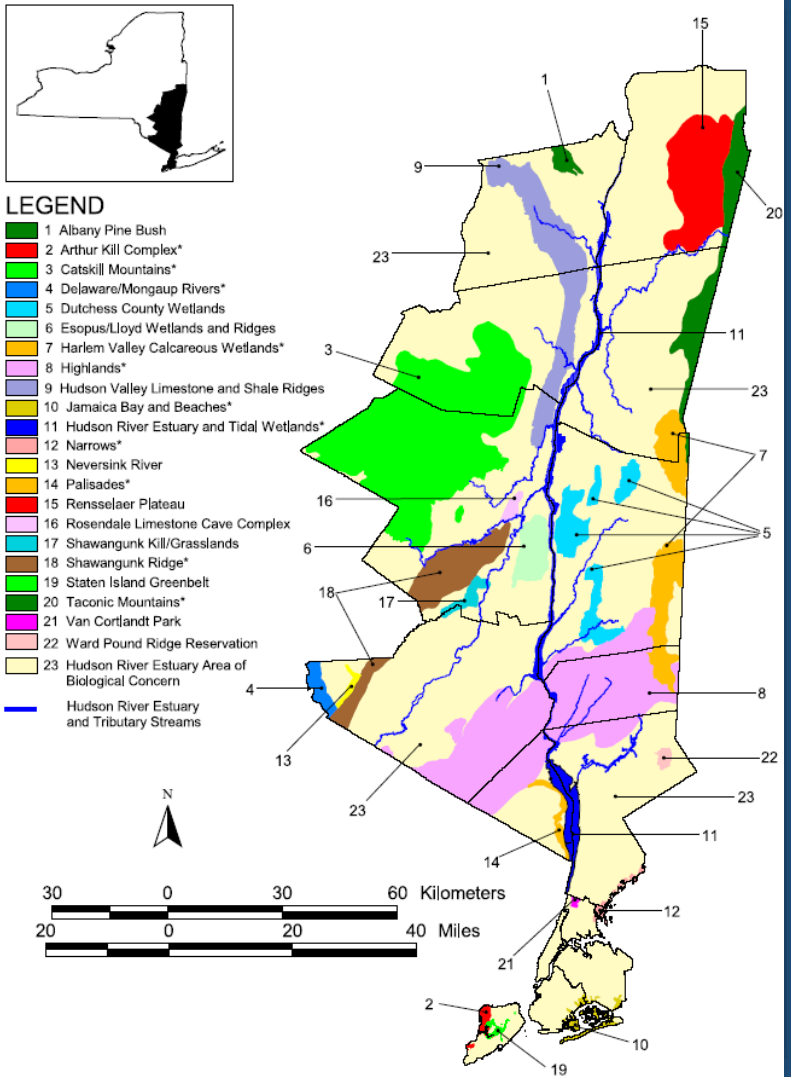
HUDSON RIVER ESTUARY

WILDLIFE AND HABITAT CONSERVATION FRAMEWORK

An Approach for Conserving Biodiversity
in the Hudson River Estuary Corridor

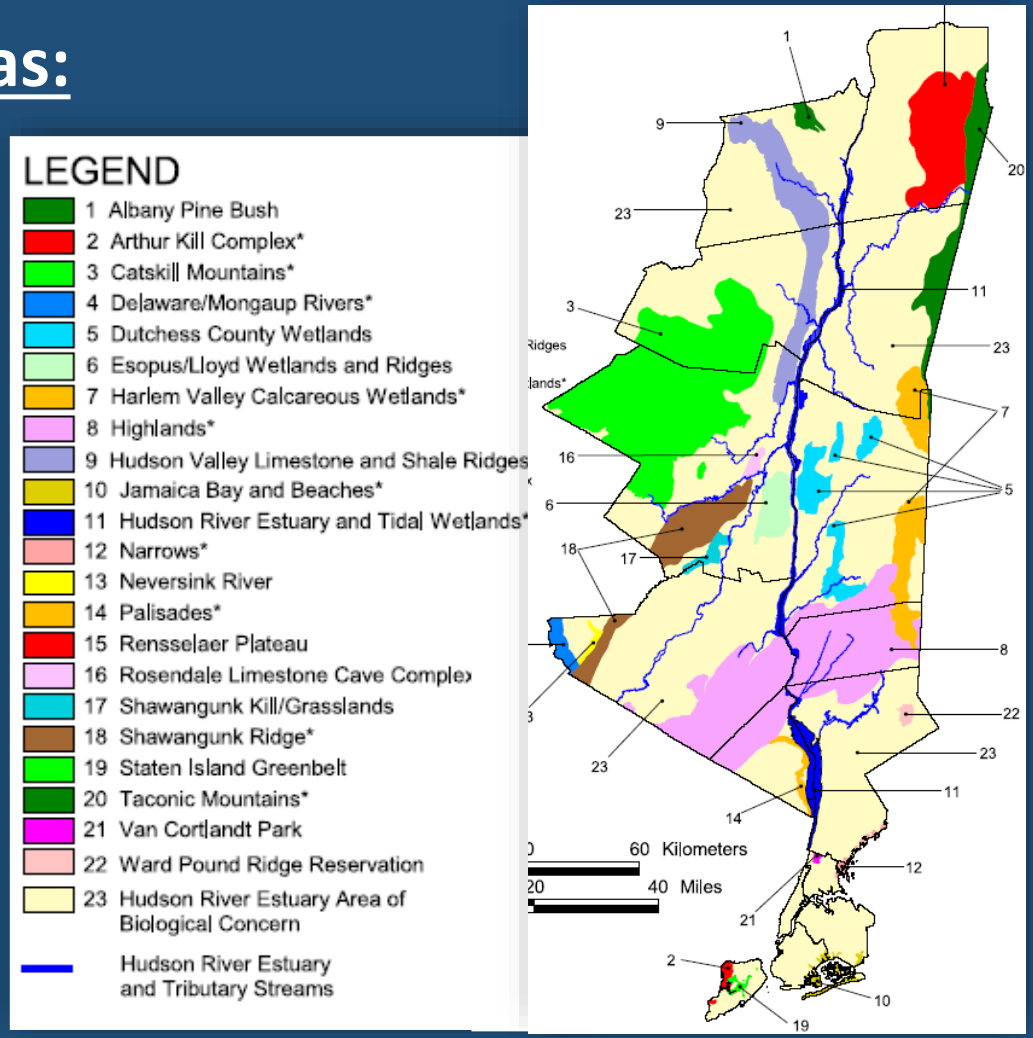
New York State Department of Environmental Conservation

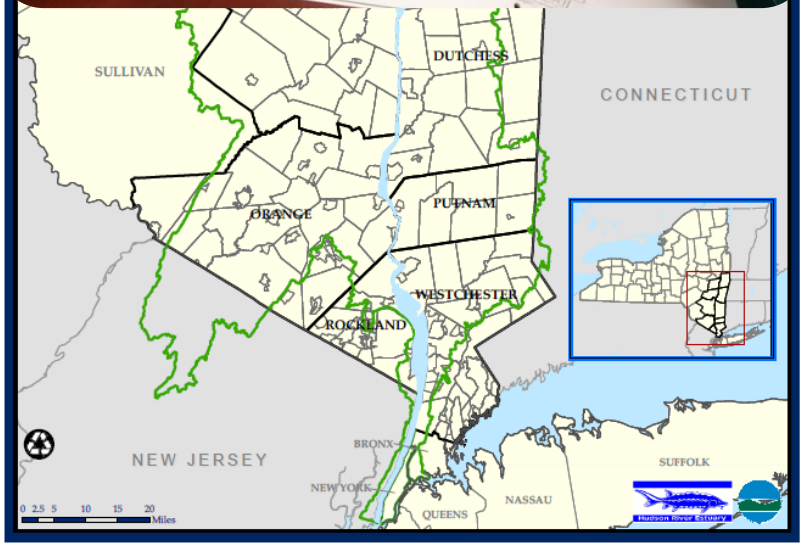
Governor David A. Paterson Commissioner Pete Grannis



Significant Biodiversity Areas:

- high concentrations of biodiversity
- unusual ecological features
- "…tend to contain uncommon and ancient geologic features, large wetland complexes, unfragmented forests, or sharp changes in elevation."





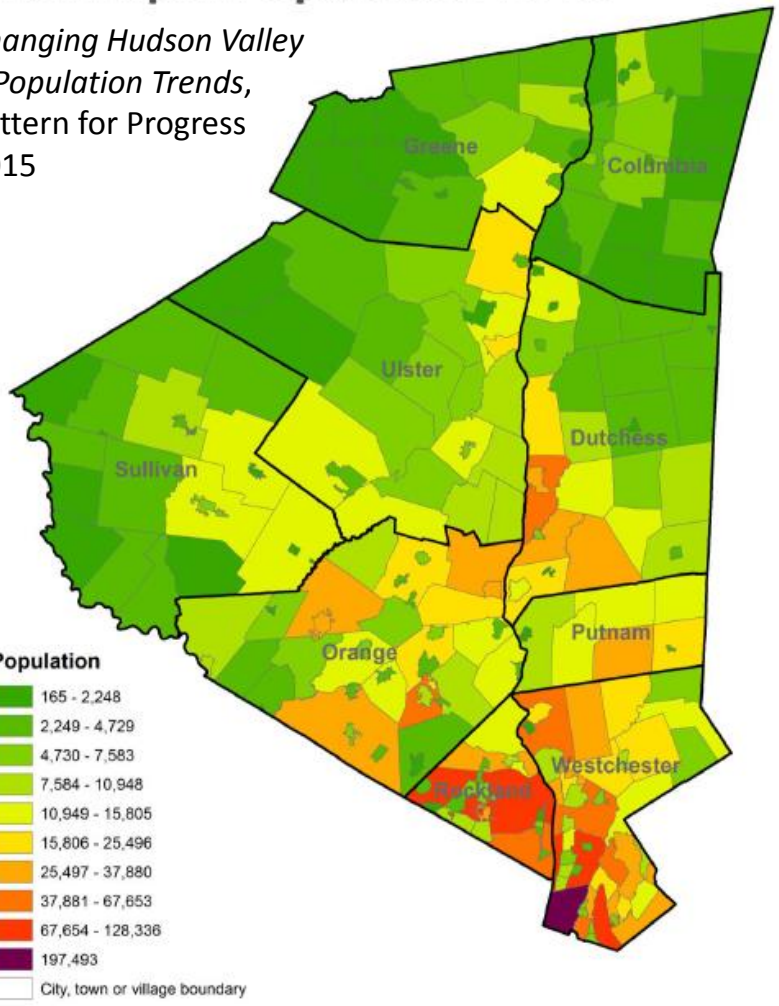
The Decision-Making Landscape

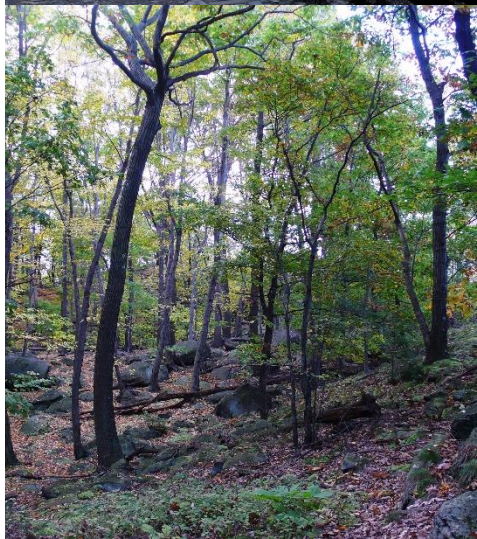
- 260 municipalities
  - ➢ elected officials, planning boards, conservation advisory councils

Photo by Laura Heady

Municipal Population 2013

Changing Hudson Valley – Population Trends, Pattern for Progress 2015





The Decision-Making Landscape

- 260 municipalities
  - ➢ elected officials, planning boards, conservation advisory councils

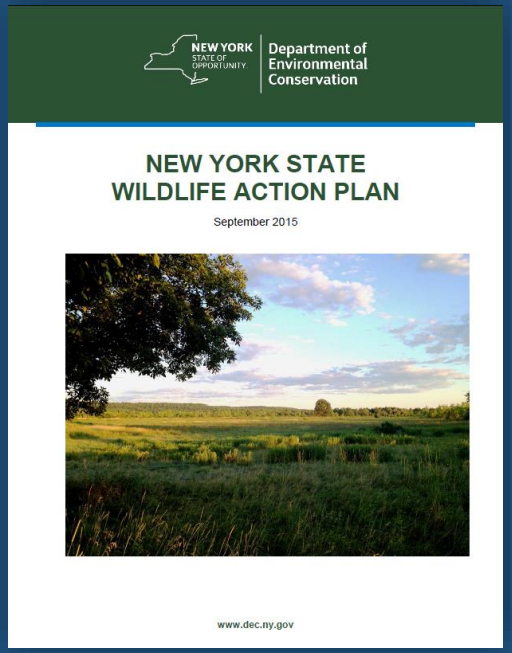
- 80% private ownership

Photos: L. Heady

Why does it matter?

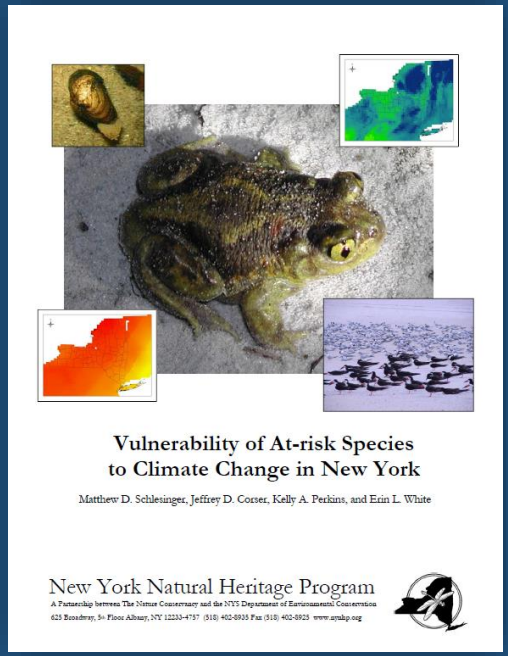
- Fragmentation is a significant threat to biodiversity in Hudson Valley.

Photo: L. Heady



Maintaining or restoring connectivity is important for *Species of Greatest Conservation Need* in:

- forests
- streams and rivers
- wetlands
- unique habitats



"aquatic and terrestrial habitat connectivity must be maintained and restored"

Why does it matter?

- Fragmentation is a significant threat to biodiversity in Hudson Valley.
- Poorly planned development is a major factor.

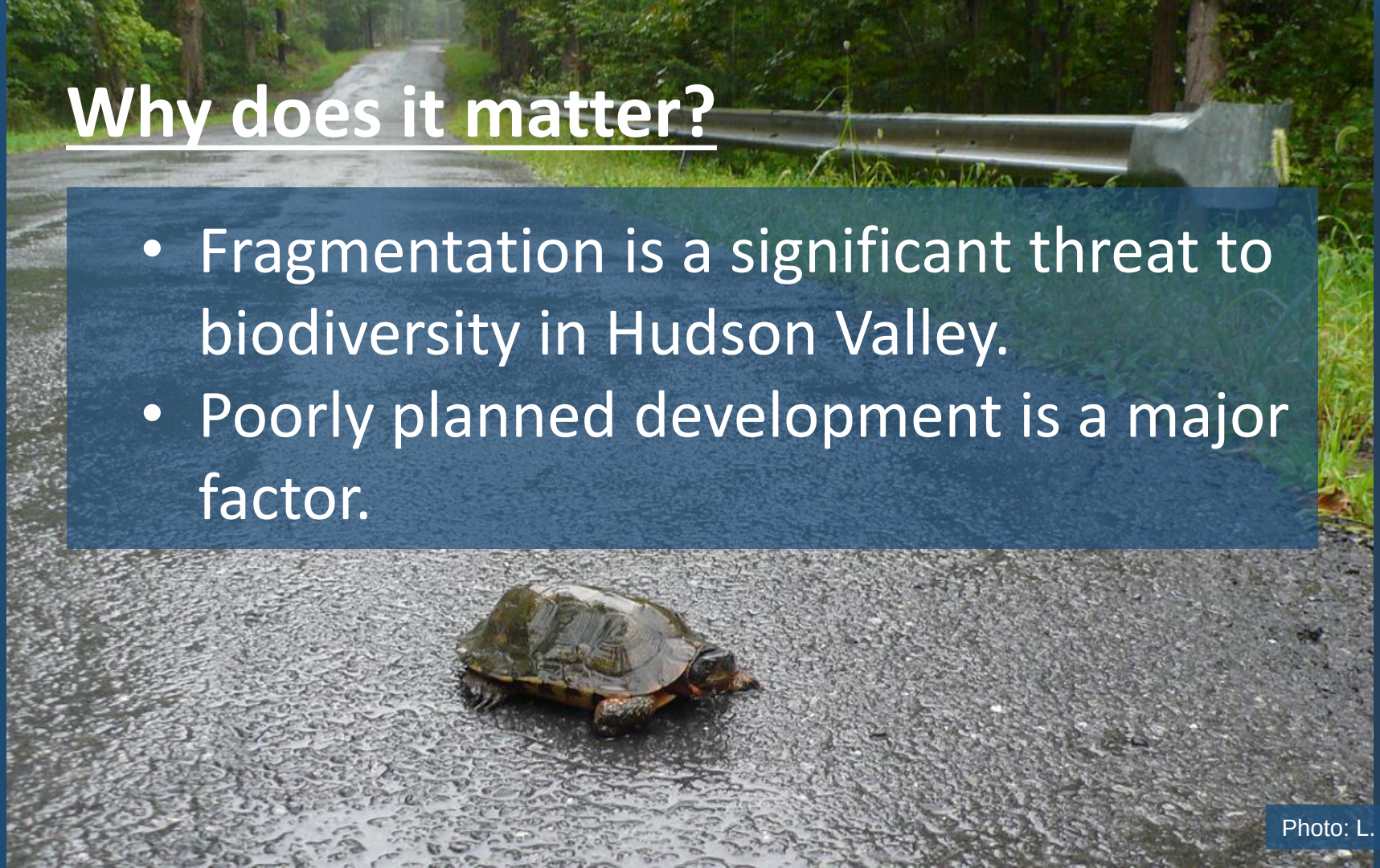


Photo: L. Heady

". . . [A] a new paradigm is needed – one that advances the proposition that instead of developing land with the naïve expectation that ecosystems will magically rearrange themselves around a new development (i.e., the old thinking), a community should first understand its ecosystems and then place development where it will minimize ecological impact. By doing so, we will bring biodiversity conservation fully into the smart-growth equation, creating quality communities that sustain both humans and the ecosystems on which all life ultimately depends."

Daly and Klemens, "Nature in Fragments"

“To truly improve quality of life, the planning codes must define open space with the same degree of precision and concern that they now apply to the design of parking lots.”

Duany et al., “Suburban Nation”

Why does it matter?

- Fragmentation is a significant threat to biodiversity in Hudson Valley.
- Poorly planned development is major factor.
- Connectivity contributes to climate change adaptation and resiliency.

Photo: L. Heady

STAYING CONNECTED

Northern Appalachians

- conservation science
- land protection
- land-use planning
- local engagement
- transportation mitigation
- policy advocacy

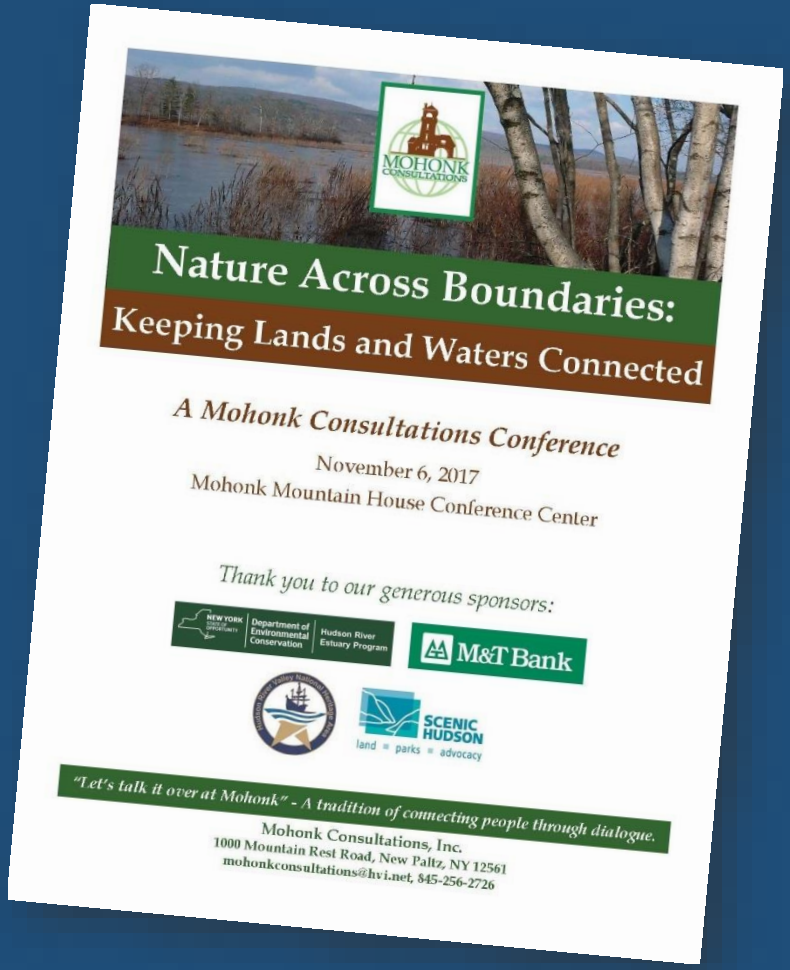


Photo: A. Meyer

Aquatic Connectivity

Photo: L. Heady

Revegetating Stream Corridors

Photo: NYSDEC

Education through Citizen Science

Photos: L. Heady, C. Bowser

Cornell University

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

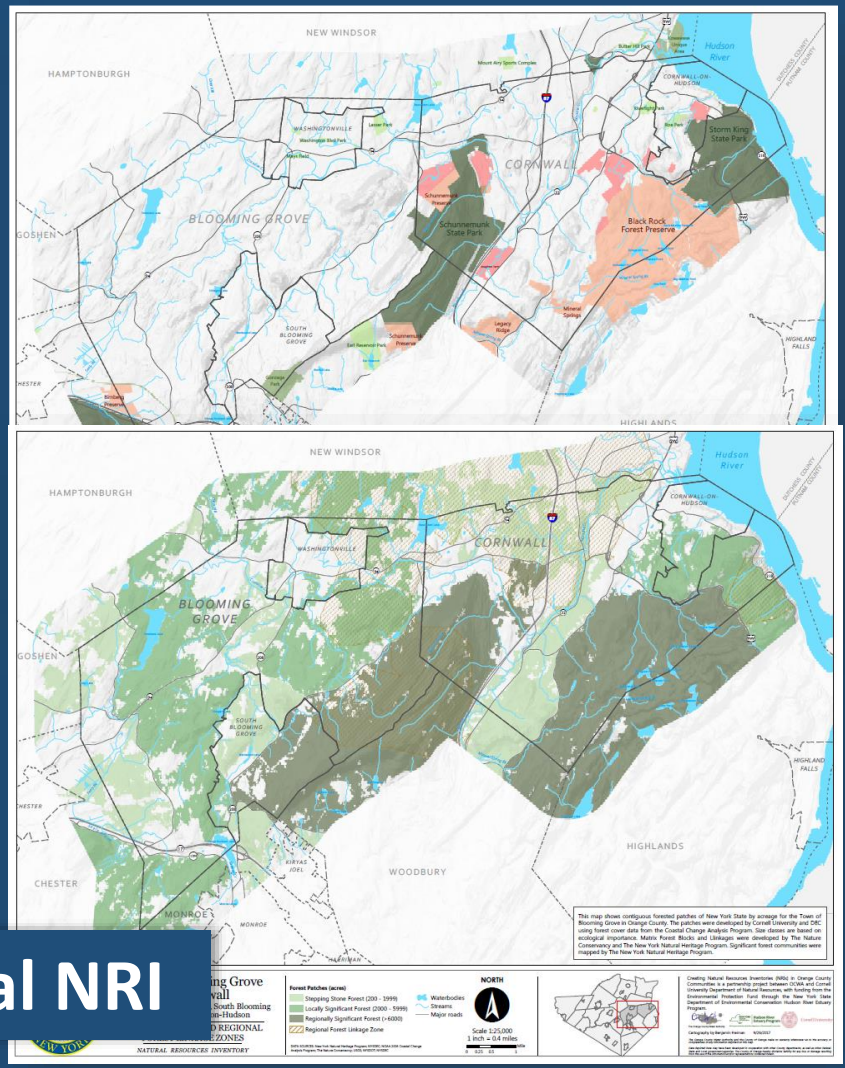
Natural Resource-Based Planning

Photo: L. Heady

"... a community should first understand its ecosystems and then place development where it will minimize ecological impact."

Daly and Klemens, "Nature in Fragments"

Photo: L. Heady



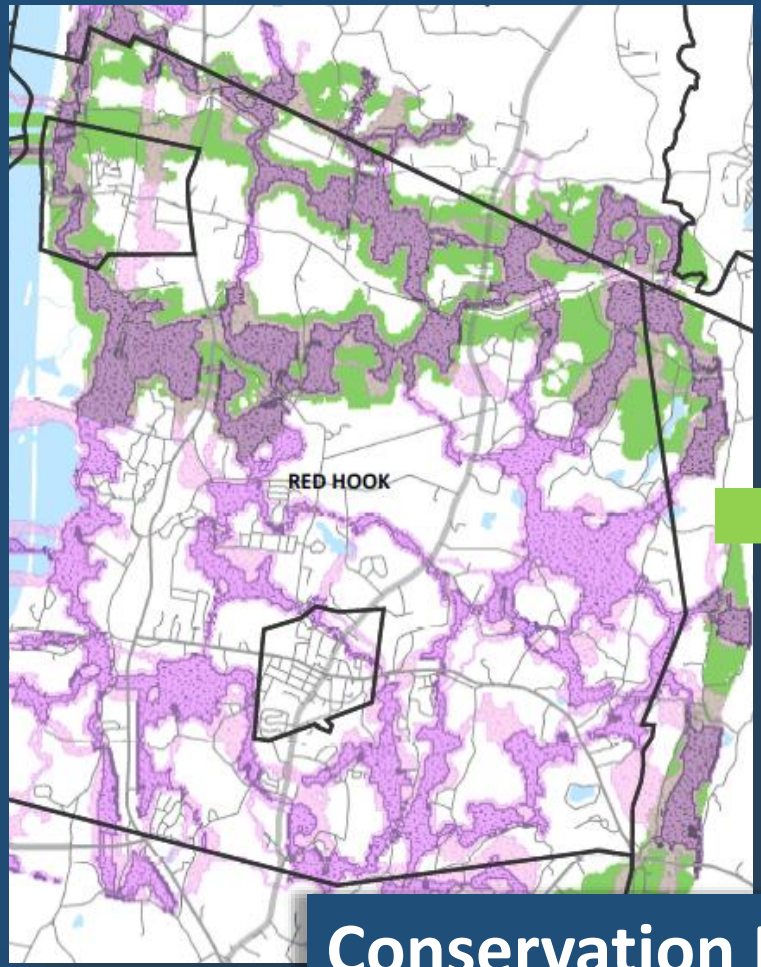
Intermunicipal NRI

Intermunicipal Open Space Planning

Photos: L. Heady

Intermunicipal Open Space Planning

Photos: L. Heady



Community Preservation

Plan UPDATE

Town of Red Hook

Villages of Red Hook & Tivoli

Red Hook Town Board | Red Hook, NY
Adopted June 9, 2016

Table 2.6 Biodiversity

Points accrued for parcels identified as significant for biodiversity attributes

These parcels include those that have been identified as significant in "Integrity-based Forest Connectivity Modeling at Regional and Local Scales in the Hudson River Estuary Watershed" because they provide landscape connections within a watershed's high-integrity forests, streams, and wetlands that create pathways for species to move, as outlined below. These attributes result in a total of 1,108 parcels containing 20,344.2 acres of land.

Parcel Points Assigned Based Upon the Following Attributes:

1. Properties with Large Forest Patches (>200 acres)
2. Properties with Areas of Known Importance for Rare Animals
3. Properties with High Priority Habitat Integrity Linkages
4. Properties with Low Priority Habitat Integrity Linkages

For a complete breakdown of each parcel, including all additional information used in the ranking, see the updated Appendix A to the 2016 CPP Update.

Conservation Financing for Connectivity

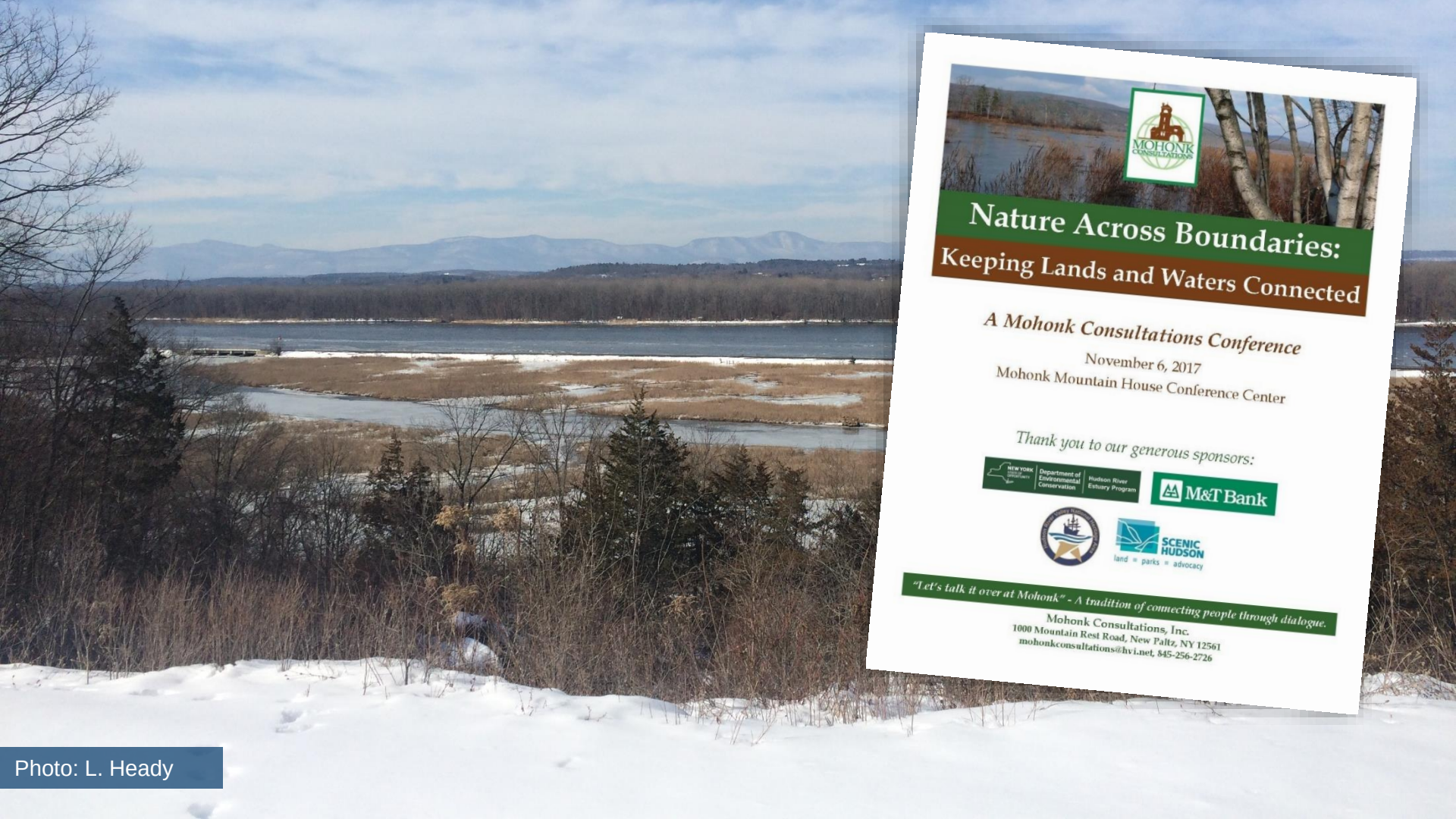


Photo: L. Heady

For more information:

Laura Heady
Conservation & Land Use Coordinator
NYSDEC Hudson River Estuary Program and Cornell University

laura.heady@dec.ny.gov
845-256-3061

NEW YORK STATE OF OPPORTUNITY | Hudson River Estuary Program
A Program of the New York State Department of Environmental Conservation

Cornell University

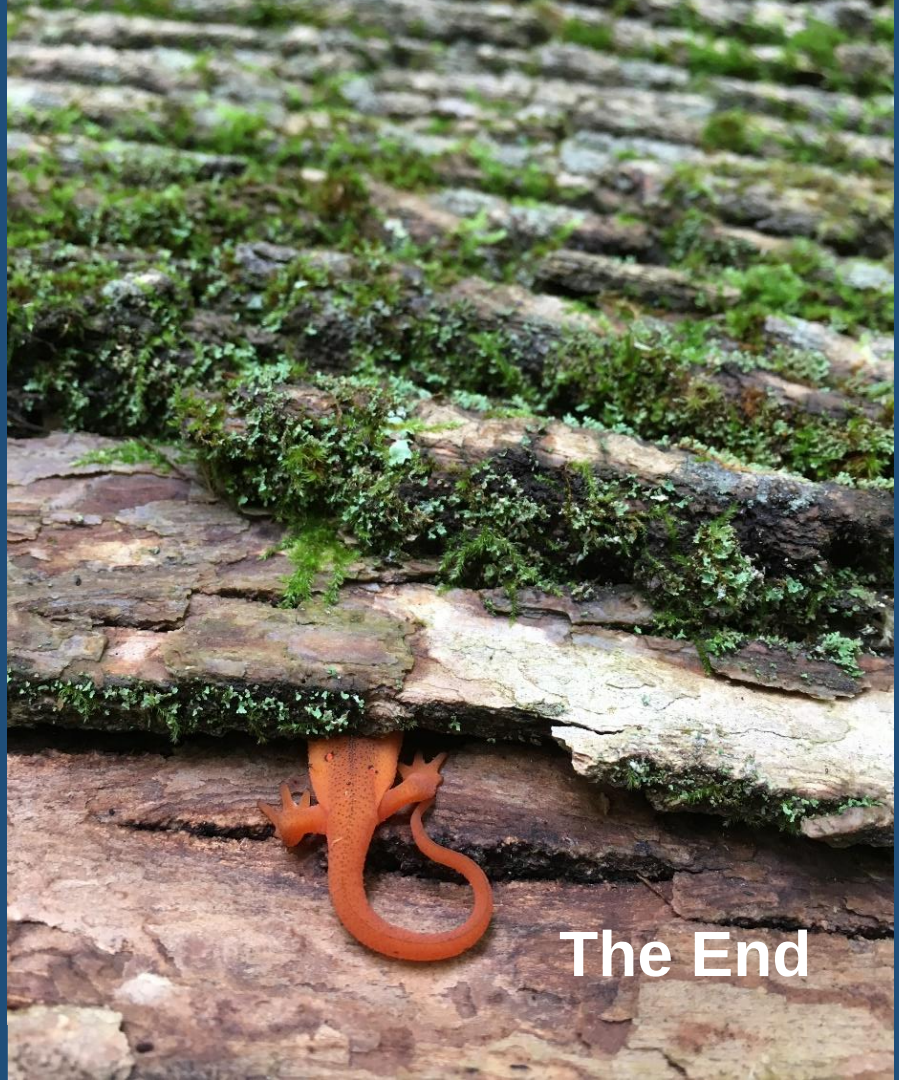


Photo: L. Heady