

# PLANNING FOR WILDLANDS & HABITAT CONNECTIVITY

**Ed Marx, AICP** 

Northeast Wildlands Ambassador March 12, 2020





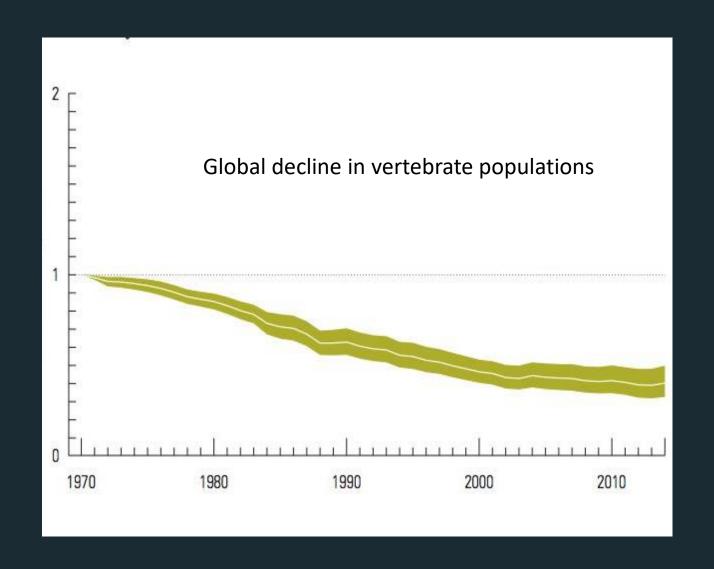
### <u>Overview</u>

- Wildlands and Wildways
- Conservation Planning for wildland and habitat connectivity
- Planning Tools to implement conservation plans
- Making the Case



# The Problem – A Global Assault on Nature

- 60% global decline in vertebrate populations
- 30% decline in North American birds since 1970
- 2.5% annual decline in global mass of insects
- 90% of large fish gone from ocean



# Threats to Biodiversity

- Habitat loss and destruction
- Species persecution and overexploitation
- Pollution
- Invasive species and disease
- Climate change

# Why a Wildway?

Half Earth

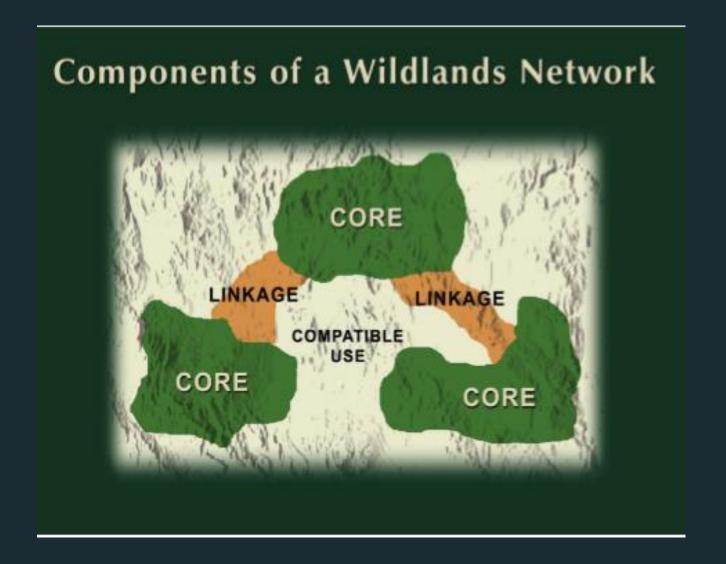
Eastern Wildway



# Elements of a Wildway

 Large, protected core areas

- Connected by corridors and/or stepping stones
- Permeable landscape

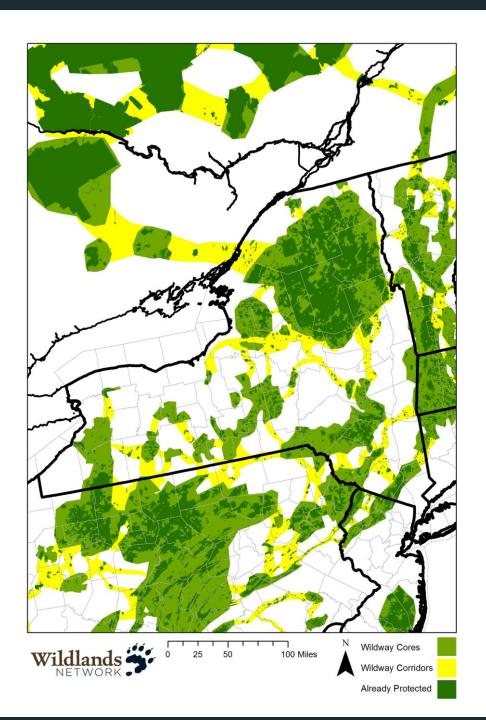


# Connectivity

- Food and cover
- Breeding
- Gene exchange
- Changing Climate
- Population Recovery

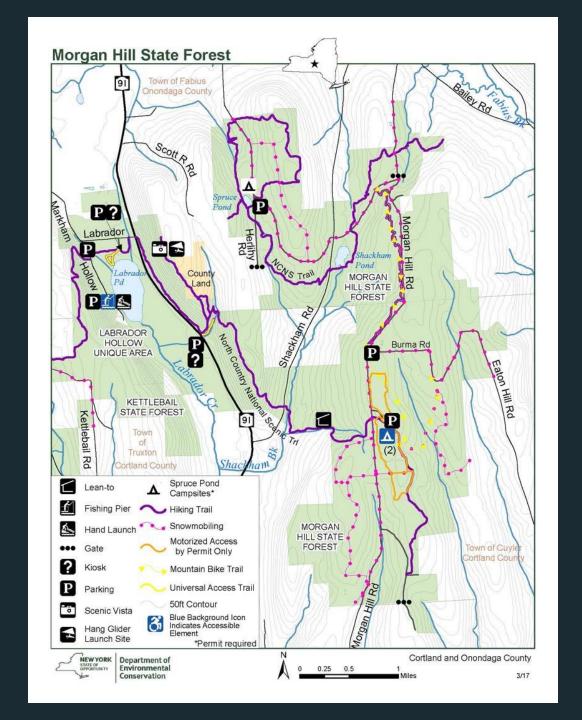


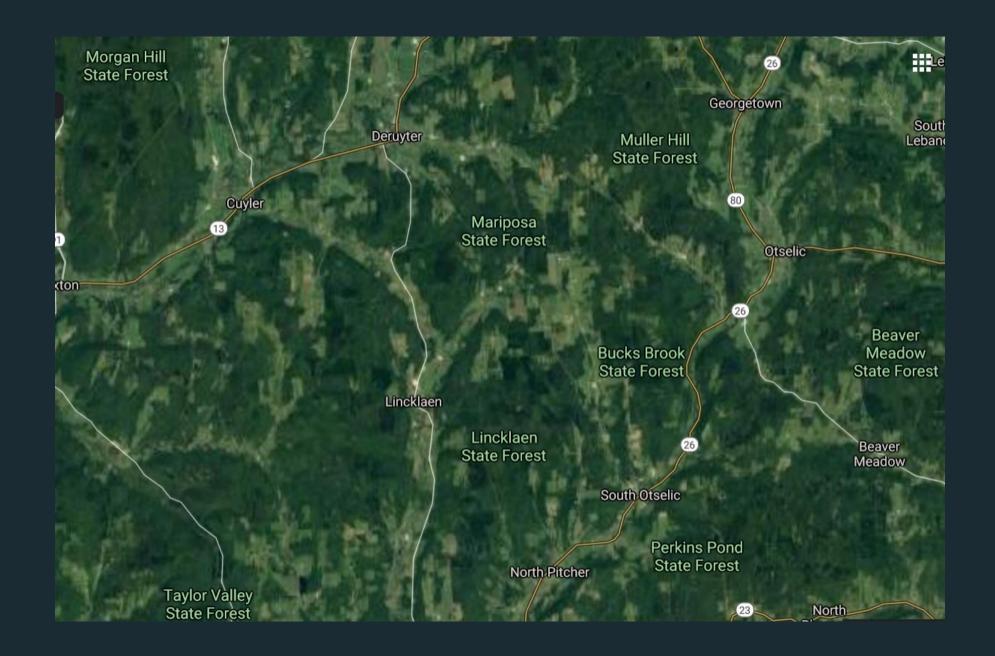
# Eastern Wildway – New York



# Local Planning for Habitat Connectivity

- A matter of scale
- Forest recovery over last century
- Add to, connect and buffer existing protected areas
- Maintain permeable landscape







## Overview of Planning Tools

- Comprehensive Plan
- Conservation Plans & Strategies
- Critical Environmental Areas

- Development Review Standards
- Conservation Zoning Districts
- Conservation Subdivision

# Conservation Planning Process Inventory

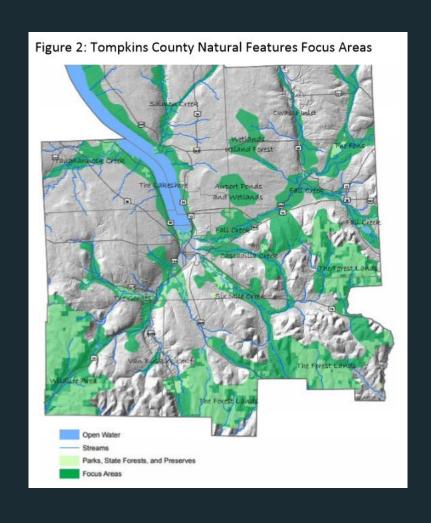
- Protected Land
- Forest blocks
- Riparian areas
- Ecological inventories
- Landscape Features
- Current and future movement corridors

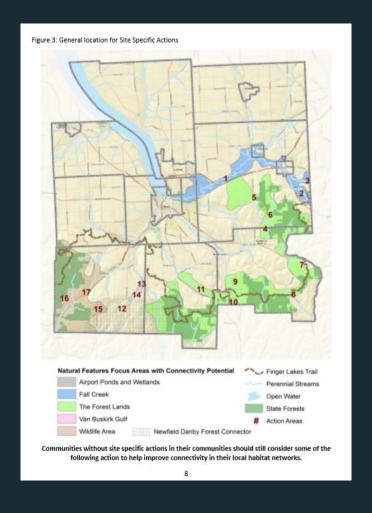
# Wildlife Corridor Design

- ID areas to be connected
- Focal species/needs
- Map/evaluate corridors
  - computer models
  - expert judgement



# Tompkins County Habitat Connectivity Strategy





### **Conservation Zoning Districts**

 Delineation of resources on/off site for all development

Mandatory Conservation
 Subdivision

Lot size and density

Building envelope

Strictly limit allowed uses

Fences, outdoor lighting, etc.

Setbacks and buffering

# Conservation Subdivision

- Locate development away from cores and corridors
- Maintain landscape connectivity
- Protect at least 50% of site
- Preserve and buffer important resources and habitat



### Road Ecology

- Large openings around stream crossings
- Natural substrate on bottom of culverts
- Vegetation on both sides of road in corridor crossings
- Wildlife crossing signs/reduced speed
- Wildlife underpasses on major highways



### WHAT ROLE DOES YOUR LAND PLAY?

As wildlife travel through our human landscape, they rely on a combination of landscape features to ensure safe passage. Where does your land fit in?

#### Core habitat

Large blocks of contiguous forest provide the necessary habitat for animals to find food and shelter, and to reproduce. In order to maintain healthy populations and genetic diversity, however, animals must be able to move between these large blocks of habitat.

#### Hedgerows

Many Northern Forest species prefer not to pass through open or agricultural areas, and take advantage of the cover provided by hedgerows between fields.

#### Riparian areas

Rivers, streams and their banks provide important habitat along which animals often travel. Maintaining cover (trees and shrubs) in these areas provides safer and more secure corridors for wildlife.

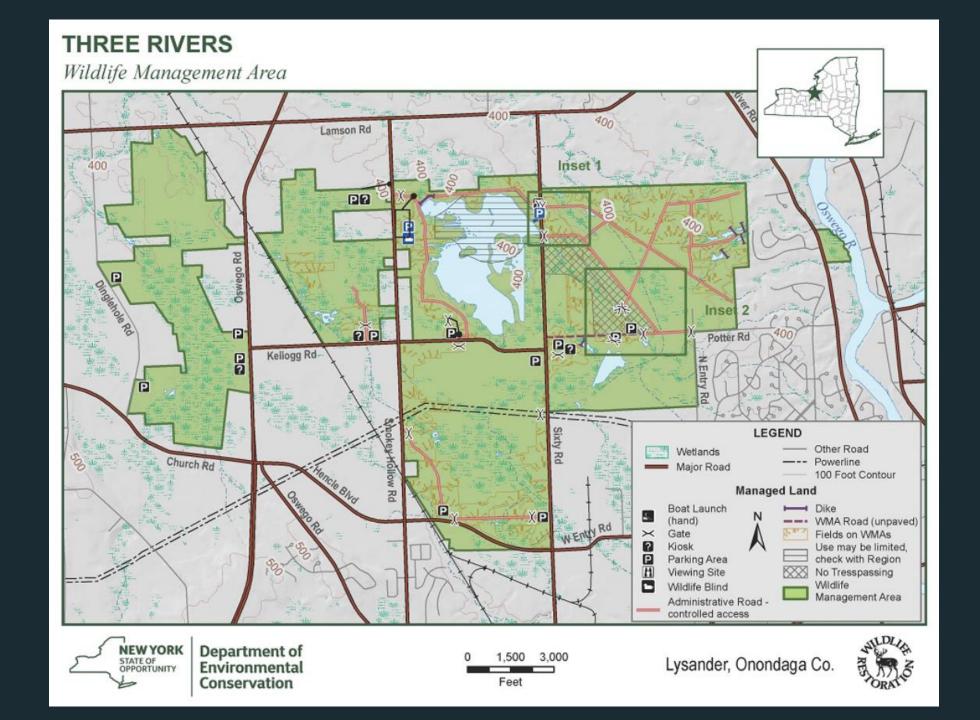
#### Road crossings

Having areas along busy roads that make them easier for wildlife to cross is essential for animals to roam on the land. These areas tend to have forest or wetlands close to the road, no guard rails, gentle terrain, and sometimes wildlife crossing structures.

Once you have identified habitat features important to wildlife, see Making Wildlife-Sensitive Decisions for ideas about how to preserve them.

#### Stepping stones These smaller forest blocks provide important cover and

food as animals roam between blocks of core habitat.



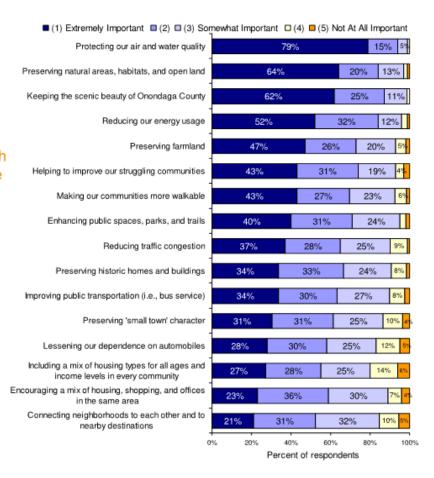


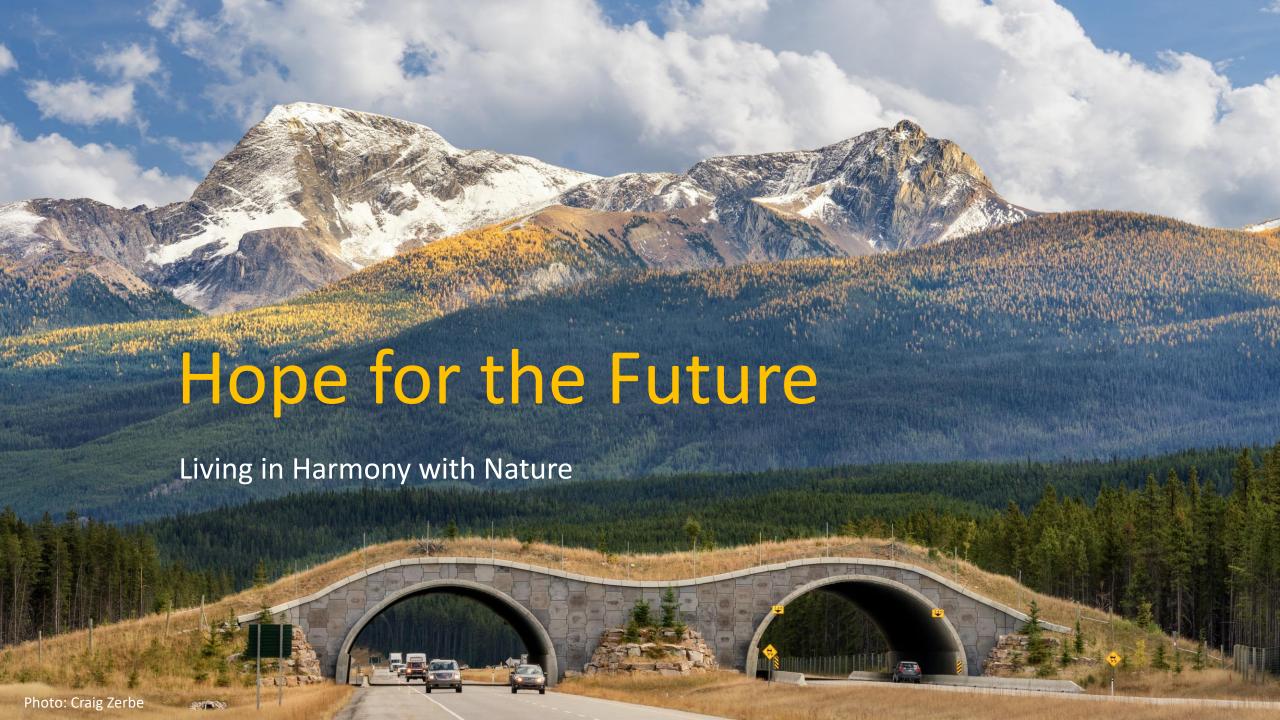
### Making the Case

- Onondaga County Survey
- Central NY Regional Sustainability Plan
- Water Quality
- Carbon Sequestration
- Tourism Economy
- Quality of Life

#### Priority Areas

Rank how important each of the following ideas are to help make Onondaga County a great place to live for you and future generations.





# **Connect With Us**

wildlandsnetwork.org

Ed Marx ed@wildlandsnetwork.org



@wildlandsnetwork



@wildlandsnetwrk



@wildlandsnetwork



# THANK YOU

