



## Science Delivery Update

Steve Fuller, Conservation Design Specialist  
NALCC, USFWS



The Wildlife  
Management Institute



North Atlantic  Landscape Conservation Cooperative



My 2014 presentations folder contains 73 presentations delivered by our staff and partners at workshops, trainings, conferences and meetings.

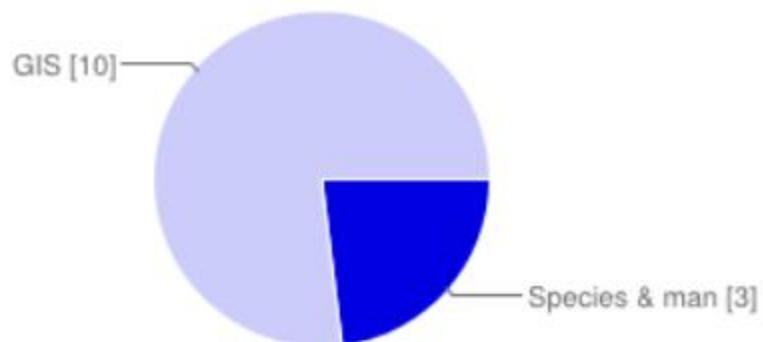
# NALCC Staff Science Delivery Events

- 2/5/2014 Workshop: **FWS SWAP Contacts**
- 2/6/2014 Workshop: State SWAP Coordinators NALCC science training
- 2/21/2014 Workshop: 2-day training **State GIS** & NALCC data
- 3/11/2014 Workshop: 2-day training **State GIS** & NALCC data
- 4/3/2014 Presentation: National Wildlife Federation Partners in **NH**
- 4/4/2014 Presentation: National Wildlife Federation Partners in **VT**
- 4/15/2014 Workshop: NEAFWA Regional Conservation Opportunity Areas
- 5/20/2014 Presentation: EPA Conference in NH
- 6/10/2014 Workshop: 2-day training **Grantees and Partners**
- 6/30/2014 Focus Group: RCOA goals and objectives
- 7/18/2014 Focus Group: RCOA goals and objectives
- 7/30/2014 Focus Group: RCOA goals and objectives
- 8/6/2014 Focus Group: RCOA goals and objectives
- 8/13/2014 Focus Group: RCOA goals and objectives
- 8/20/2014 Focus Group: RCOA goals and objectives

# NALCC Staff Science Delivery Events

9/1/2014	Workshop: NALCC Landscape data and RCOAs (NEFWDTC)
8/19/2014	Workshop: 2-day training <b>FWS and Partners</b>
9/10/2014	Webinar: NEFWDTC
9/19/2014	Workshop: <b>Land Trust Rally RI</b>
11/13/2014	Workshop: <b>RCP Gathering</b>
11/24/2014	Webinar: RCOA decision process
1/7/2015	Webinar: RCOA Workgroup
1/21/2015	Webinar: RCOA Workgroup
2/4/2015	Webinar: RCOA Workgroup
2/18/2015	Webinar: RCOA Workgroup
3/13/2015	Workshop: <b>Land trust/RCP</b> training in Maine
3/16/2015	Workshop: 3-day <b>RCOA alternatives assessment</b>
4/1/2015	Presentation: <b>Woodcock Initiative</b>
4/8/2015	Webinar: RCOA Workgroup
4/10/2015	Workshop: <b>Land trust/RCP</b> training in Vermont

## Which category best captures your area of expertise?

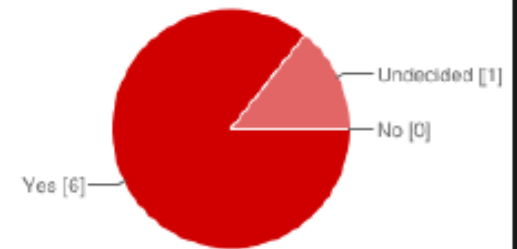


Species & management	<b>3</b>	21.4%
GIS	<b>10</b>	71.4%

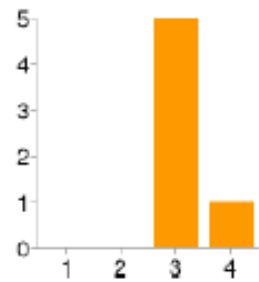
## Expertise breakdown

# 1.A.5 Freshwater Resilience

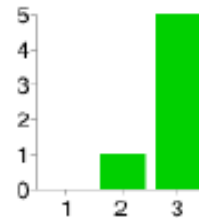
## 9 | Should we further pursue this alternative



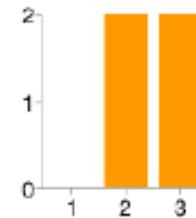
### 1 | Technological feasibility



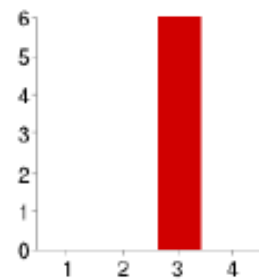
### 4 | Relevance to RSGCN, their habitats and SWAPs



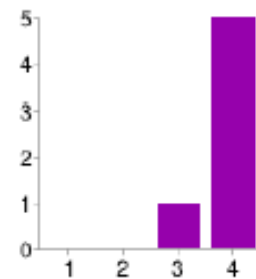
### 8 | Does this alternative satisfy the fundamental objective?



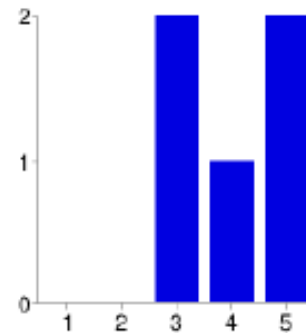
### 2 | Data quality



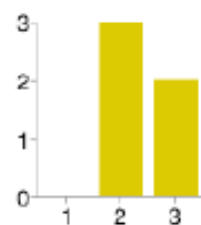
### 5 | Usefulness for informing conservation decisions

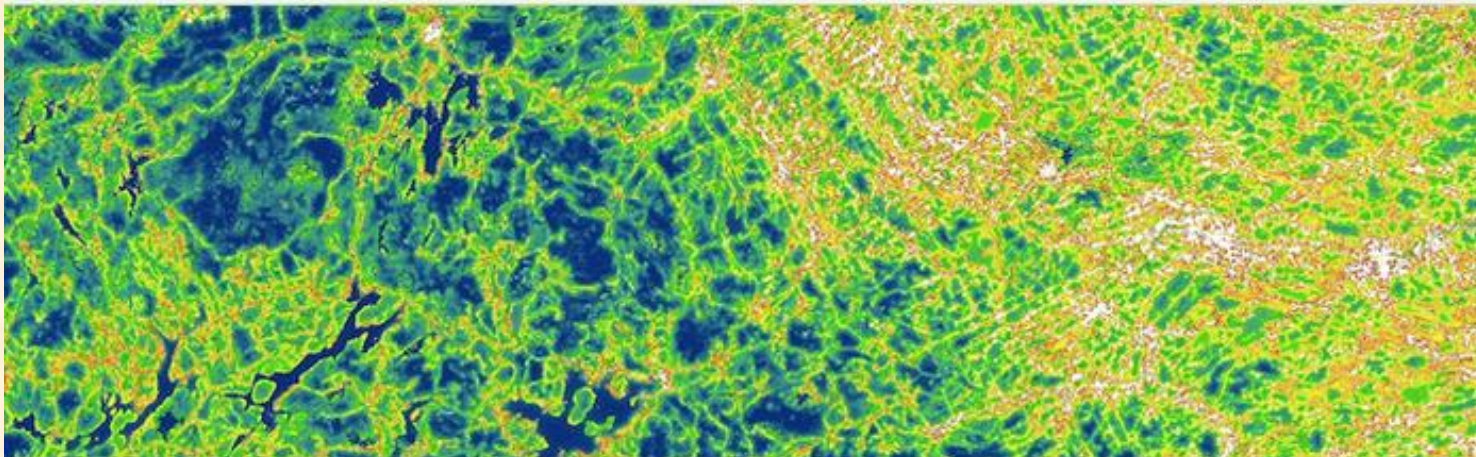


### 6 | How does this alternative compare to others?



### 3 | Readiness for application





## Workshop evaluation

Thank you for your participation in today's workshop! Please take a few minutes to fill out this evaluation. Your input will help ensure that we continuously improve how the RCP Network and its partners deliver science and science-based tools to RCPs.

Your name

Type of agency you work for

- Federal
- State
- Municipality
- Land trust
- Other:

How would rank your GIS skill level?

(1) First-time user (2) Beginner (3) Intermediate (4) Advanced

[https://docs.google.com/forms/d/1CFWlth32XS2iaVCkqB5kocDqkeQ-c6lUY\\_exrYnDJdM/edit?usp=sharing](https://docs.google.com/forms/d/1CFWlth32XS2iaVCkqB5kocDqkeQ-c6lUY_exrYnDJdM/edit?usp=sharing)

# Completed Science Delivery Demonstration Projects

- TPL White Moose Plan
- Local Adaptation for Marsh Migration



# White Moose **Plan** Decision Support Tools

The screenshot shows the Data Basin website interface. At the top, there is a navigation bar with links for HOME, ABOUT, BLOG, HELP, DONATE, LANGUAGE: English, and LOG OUT. The main header features the Data Basin logo and the text "Explore • Create • Share • Learn". Below this is a search bar and a "Search This Group" button. A secondary navigation bar includes tabs for My Workspace, Datasets, Maps, Galleries, People, and Groups. A green banner below the navigation bar says "Welcome Brenda Faber".

The main content area is titled "White Mountains to Moosehead Lake Initiative" and includes a "Manage Group" button. A sidebar on the left lists navigation options: Group Home, Profile, Bookmarks, Discussions, Members (8), Membership Requests (0), and Supporting Documents. Below the sidebar is a user profile for Brenda Faber with options for Messages, Create a Map, Import a Dataset, Create a Group, and Create a Gallery.

The main content area features a large image of a mountain landscape. Overlaid on the image is a text box with the following content:

**Welcome.** [Edit](#)

**White Mountains to Moosehead Lake Initiative  
Partners Data Exchange**

This site will allow you to:

- Share data with partners (access is limited to invited partners only).
- Create and share custom maps.
- Analyze proposed conservation projects based on critical resource value.

If this is your first visit to this group, click on **Supporting Documents** (menu to the left in green) and then open the tutorial for hints on how to use the site.

**Links:**  
[Measures of Progress](#)  
[Project Partners](#)

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# White Moose Plan Tracking Tools

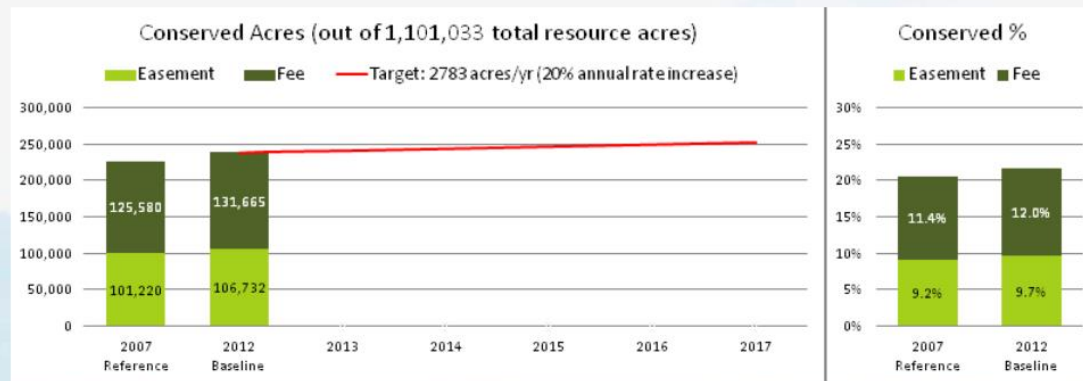
## Measure of Progress Link

### White Mountains to Moosehead Lake Initiative

#### Measures of Progress

- \* **Preserve Workable Forests**
  - Private Workable Forests
  - High Productivity Forest Soils
- \* **Maintain Healthy and Resilient Natural Resources**
  - Eastern Brook Trout Habitat
  - Atlantic Salmon Habitat
  - Highly Resilient Lands
  - State Wildlife Action Plan
- \* **Increase Opportunities for Outdoor Recreation**
  - Non-Motorized Trail Network
  - Motorized Trail Network

#### Conservation Progress: High Productivity Forest Soils



#### Featured Project Results

Zoom Project

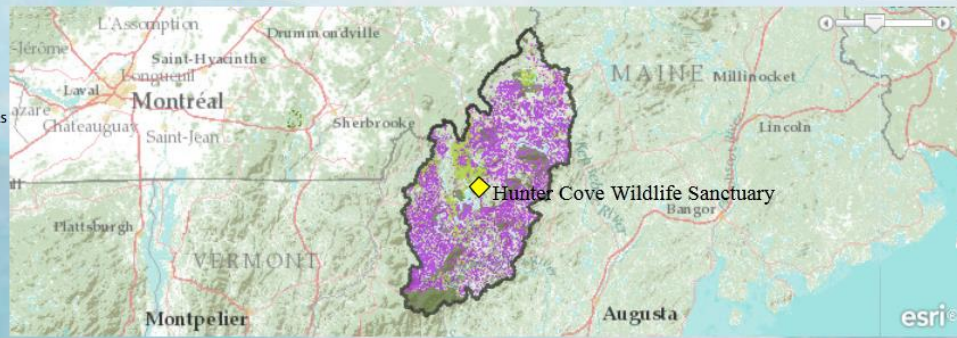


**Hunter Cove Wildlife Sanctuary**  
 153 acres conserved  
 13% is High Productivity Forest Soils  
[Learn more ...](#)

#### Study Area Map

Zoom Home

Hide Legend



#### Map Legend

- Study Area Boundary
- Preserve Workable Forests
- High Productivity Forest Soils
- Protected Lands
- Easements
- Fee and Other Conserved



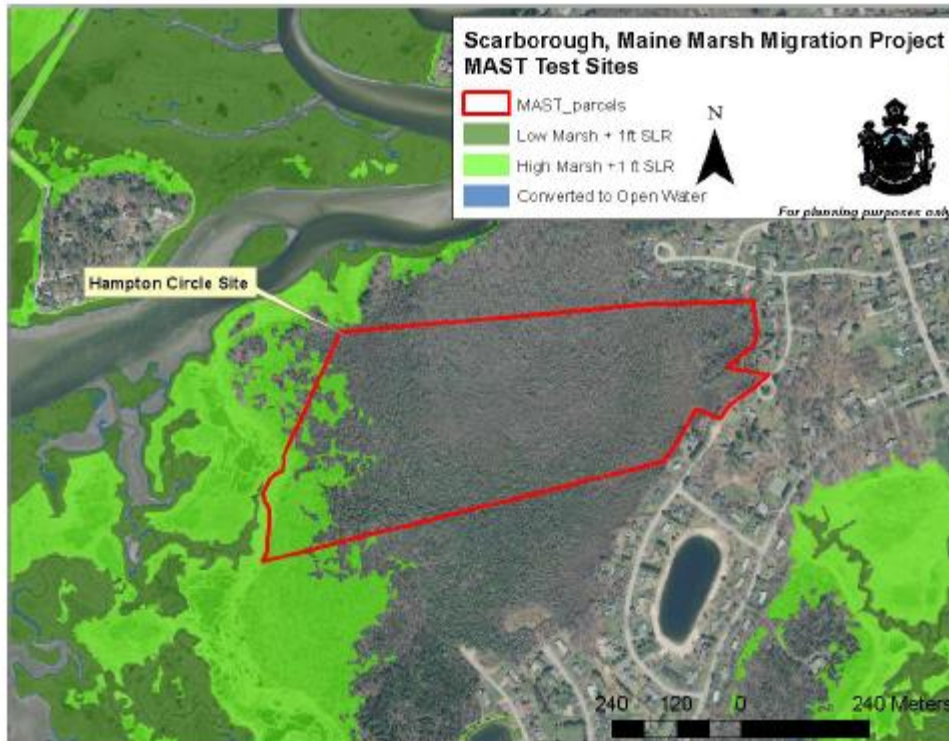
Final Report

**Integrating Science into Policy:  
Local Adaptation for Marsh Migration  
NALCC 2012-03**



Maine Department of Inland Fisheries and Wildlife  
February 2015

**Strategic Marsh Adaptation:  
Creating and Testing a New Decision-support Tool.**



*Sample sea level rise projection used in the study, showing marsh beginning to migrate onto existing upland.*

**Nort**

Final Report Submitted to the  
Maine Department of Agriculture, Conservation, and Forestry  
Catalysis Adaptation Partners, LLC  
July 9, 2014



# Final Report

## Town of Georgetown Marsh Migration Project January 31, 2015

By John Hagan and Kate MacKay  
([haganjohn@myfairpoint.net](mailto:haganjohn@myfairpoint.net) [kmackay@myfairpoint.net](mailto:kmackay@myfairpoint.net))



### Introduction

In 2012, Georgetown was selected as one of several towns in southern and mid-coast Maine to participate in the Municipal Planning Assistance Program's Marsh Migration Project. The Georgetown Conservation Commission enthusiastically embraced the goal of the project, to engage interested coastal communities in planning for climate change. Each town took its own approach in using the assistance provided by the State. The dedication of the Project leaders to meeting the particular needs and interests of each community was exceptional, and very much appreciated.

At the outset of the project, the Georgetown Conservation Commission (GCC) decided that the best way to engage the

August 20, 2013

Presentation and discussion at the Georgetown Historical Society; "Georgetown's Future Climate and Weather." This evening event involved leaders within the community discussing their particular perspectives on climate change (rather than having "experts" be the sole presenters).

November 2, 2013

Field trip with University of New Hampshire Environmental Engineering students to visit sites in Georgetown vulnerable to sea-level rise. Because of the Marsh Migration project, the student team produced a comprehensive report on Georgetown's vulnerability to climate

**Comprehensive Plan  
Town of Bowdoinham  
Sea Level Rise and Climate Change Adaptation Goals and Strategies  
Draft 3 –Prepared February 4, 2014**

**INVENTORY AND ANALYSIS: SEA LEVEL RISE AND CLIMATE CHANGE**

**Introduction**

Sea level is rising according to one hundred years of records from the Portland, ME tide gauge. Along with this change, storms are becoming more frequent and intense, and damages are increasing. The important question for the Town of Bowdoinham is: “How should the Town respond and adapt?” This chapter inventories the best available data on historical and recent trends in sea level change, and offers the best available current predictions for the future. This Chapter establishes the rational basis on which the Town’s policy response to sea level rise is based.

This chapter does not delve into the underlying causes of the observed changes in sea level. The underlying causes of sea level rise are being debated nationally and internationally, and are the

# Real Estate Impacts of Potential Flooding in the Waterfront Park area of Bath, ME



Using the COAST Tool for Analysis of the  
100-year Storm Event, High and Low Sea Level Rise Scenarios  
For the Years 2040, 2070, and 2100

December 2013  
Catalysis Adaptation Partners, LLC



# Ongoing Science Delivery Demonstration Projects

- WCS Town Prioritization and Planning
- Envision the Susquehanna
- OSI Climate Resilience Guidance Documents
- Highstead RCP Workshops



# Enhanced stewardship of priority habitats and species on private lands using NALCC science across four Northeastern states



Adirondack  
Program



# Opportunities

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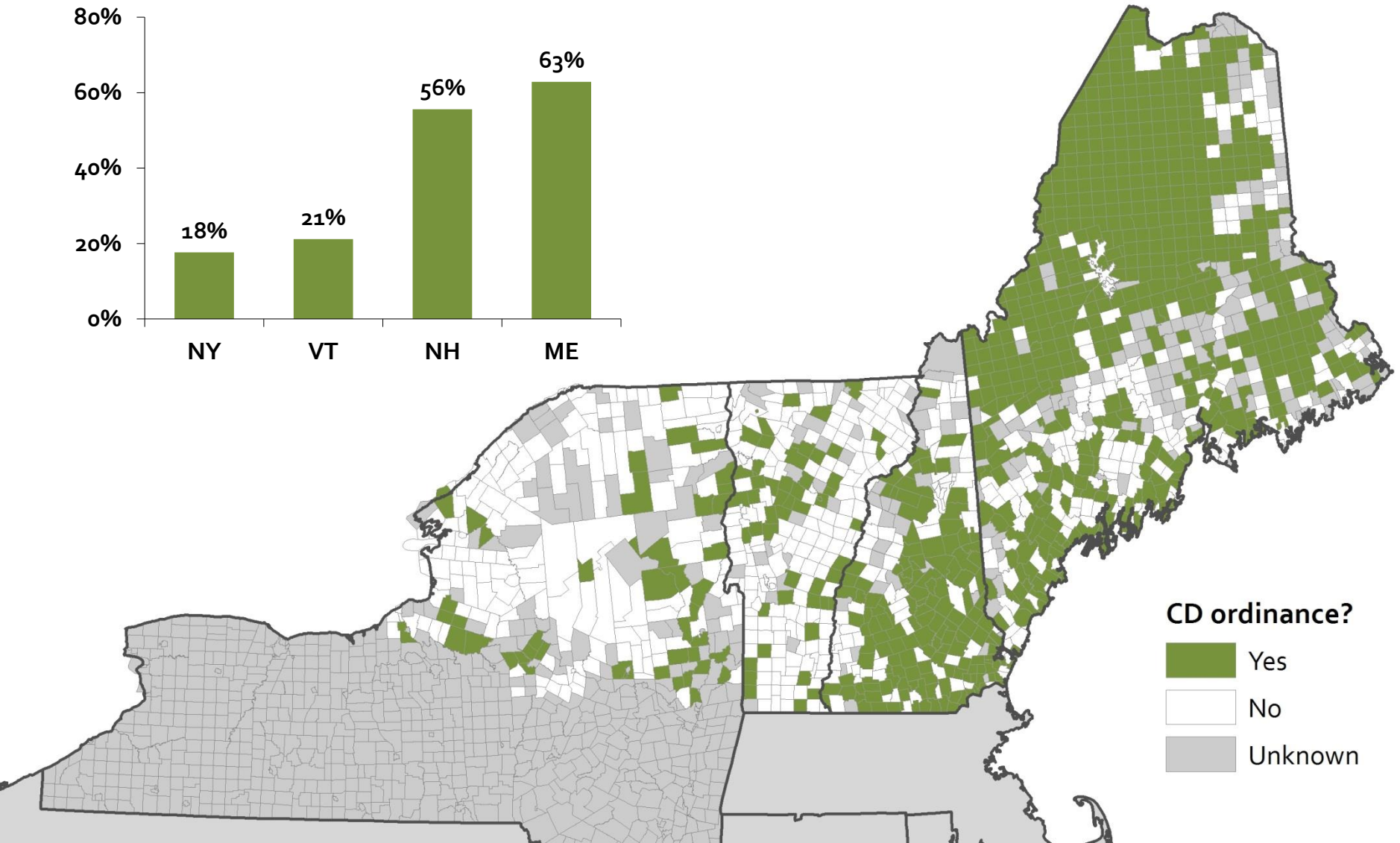
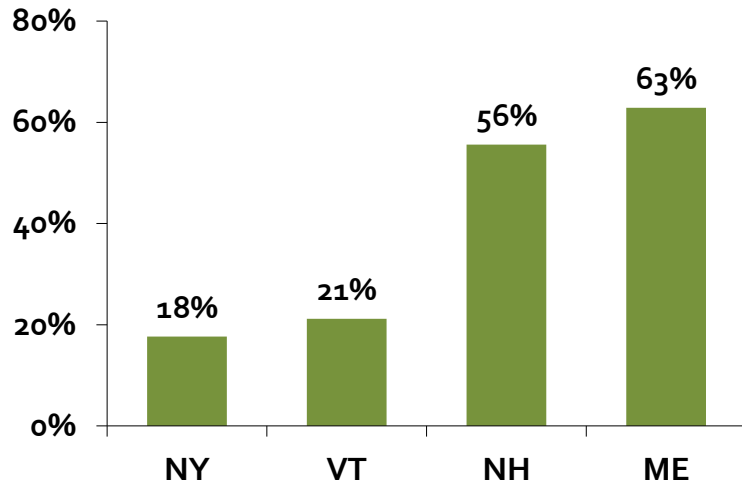
*What steps are needed for success?*

- Identify communities with highest potential for success
- Coordinate regional & local players
- Develop learning network
- Delivering technical assistance where none is available



# Conservation Development Ordinances:

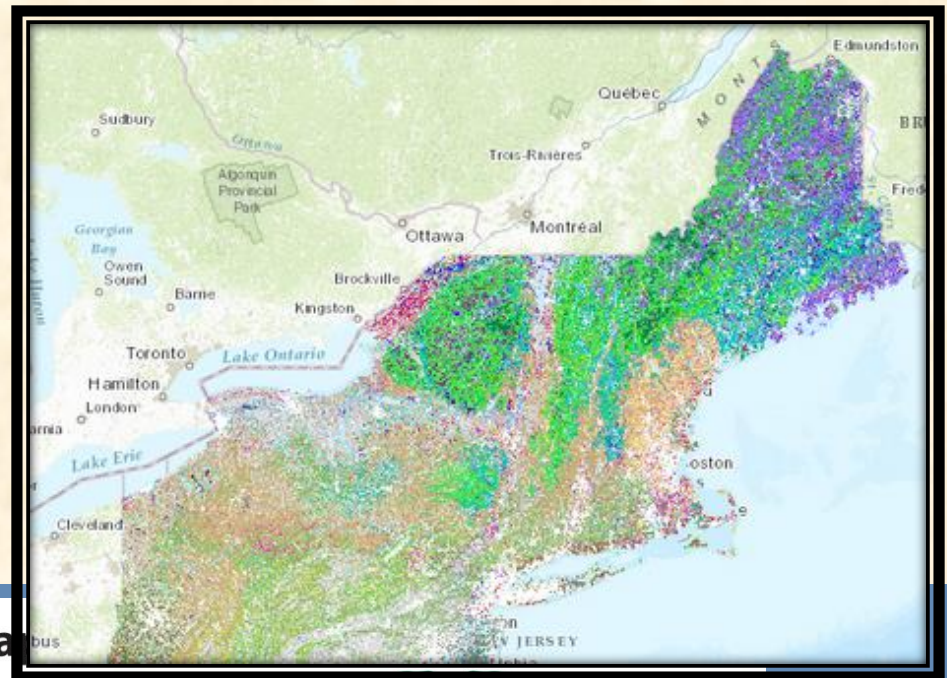
*Rate of adoption varies by state*



# New Tools



## Northeast Terrestrial Habitat

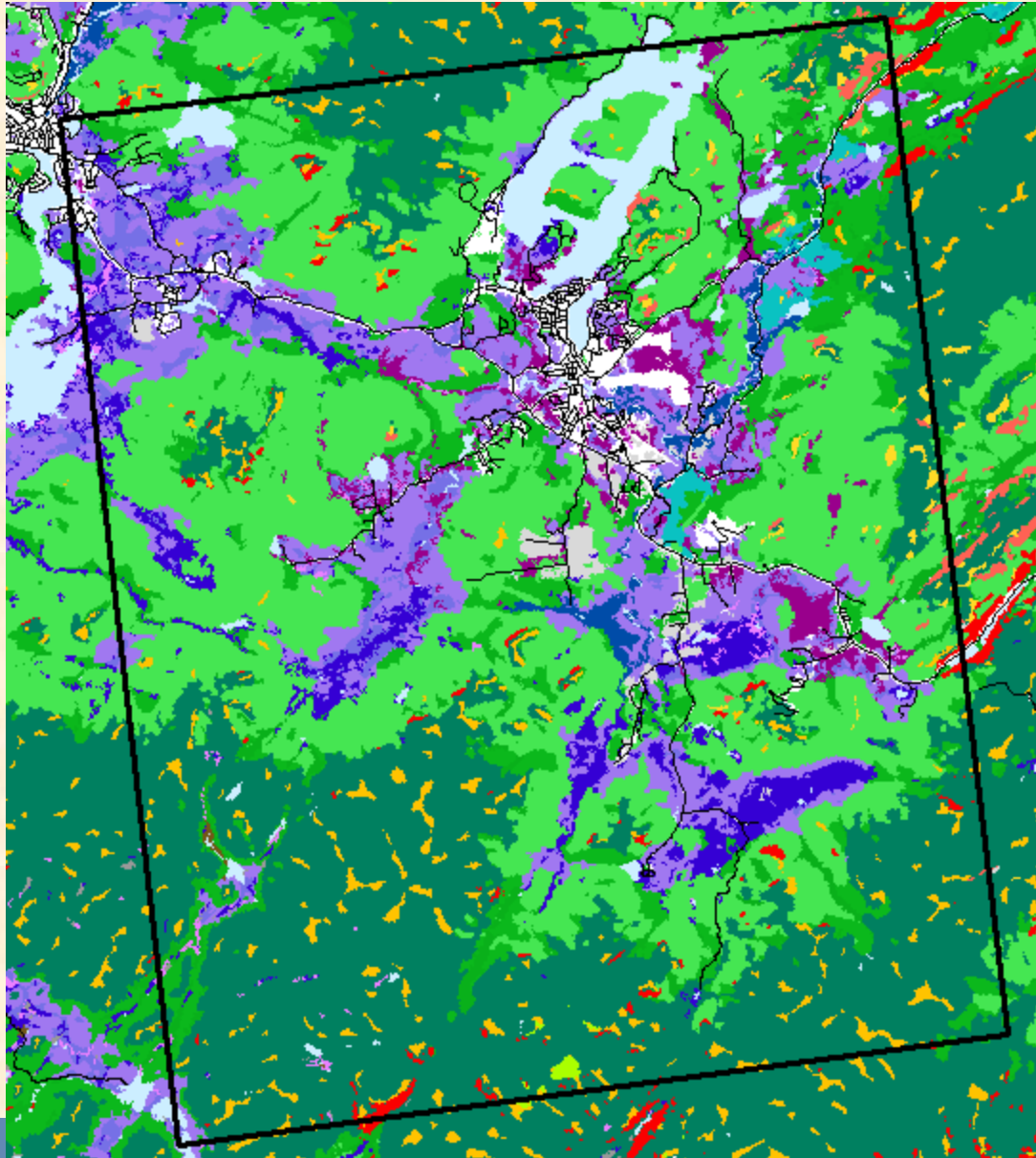


# NYS Gallery

- Online geographic data for NY towns
- Information on priority habitats and species
- Tools for ecological assessment and land use planning

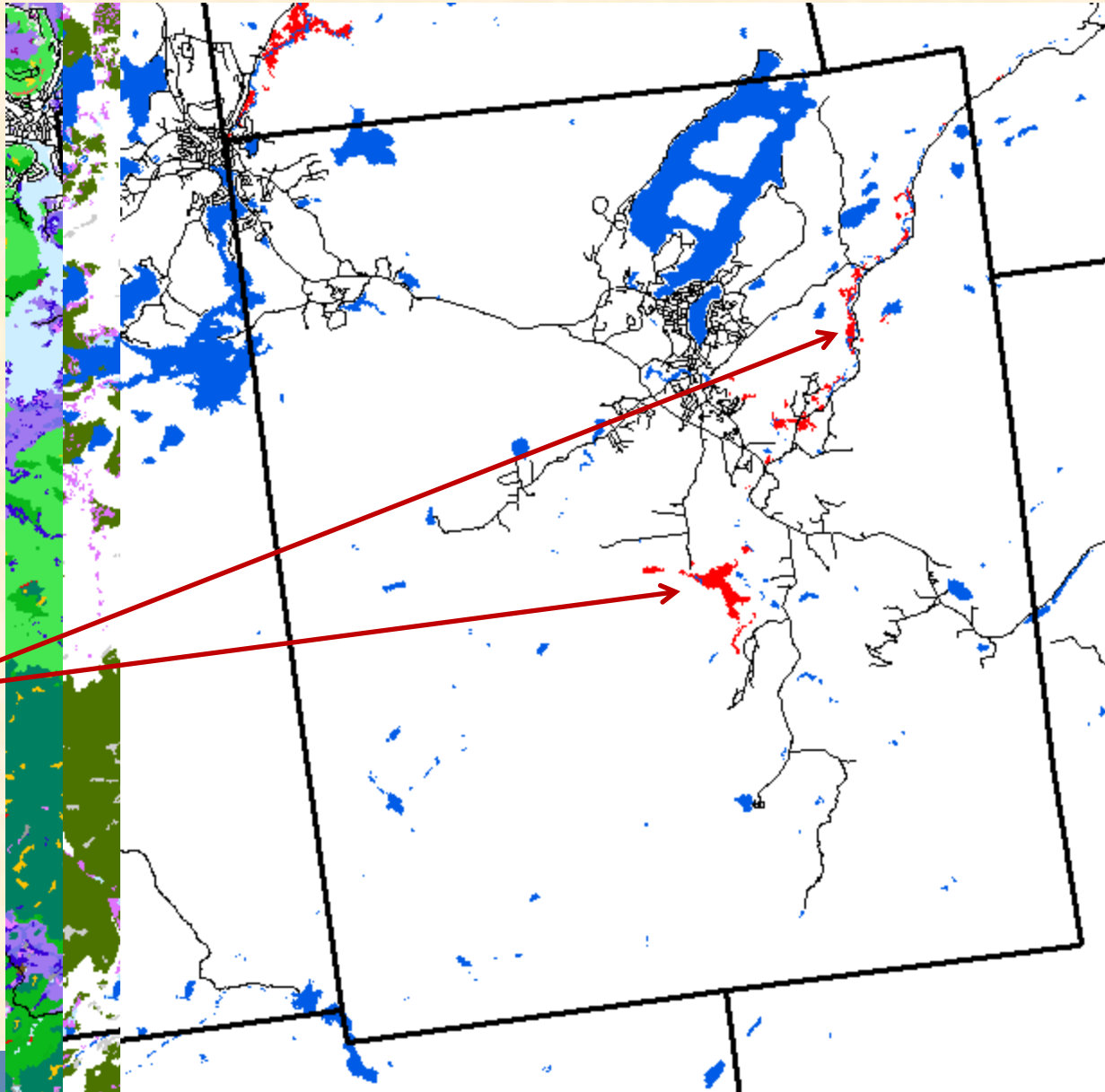


# Lake Placid, NY, Town of North Elba



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# Lake Placid, NY, Town of North Elba



Rare  
habitats

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# *Envision the Susquehanna*

***Through the Envision the Susquehanna initiative, the Chesapeake Conservancy builds partnerships across the watershed, linking on-going efforts, incorporating new data, and adding resources to***





## Work with communities and key stakeholders to identify joint priorities and solutions



# Susquehanna Engagement

1. **Key Informant Interviews**  
62 interviews in 19 of the 22 counties
2. **Comprehensive Plan/  
Open Space Plan Analysis**
3. **Regional Phone Survey**  
950 respondents
4. **Stakeholder Workshops**

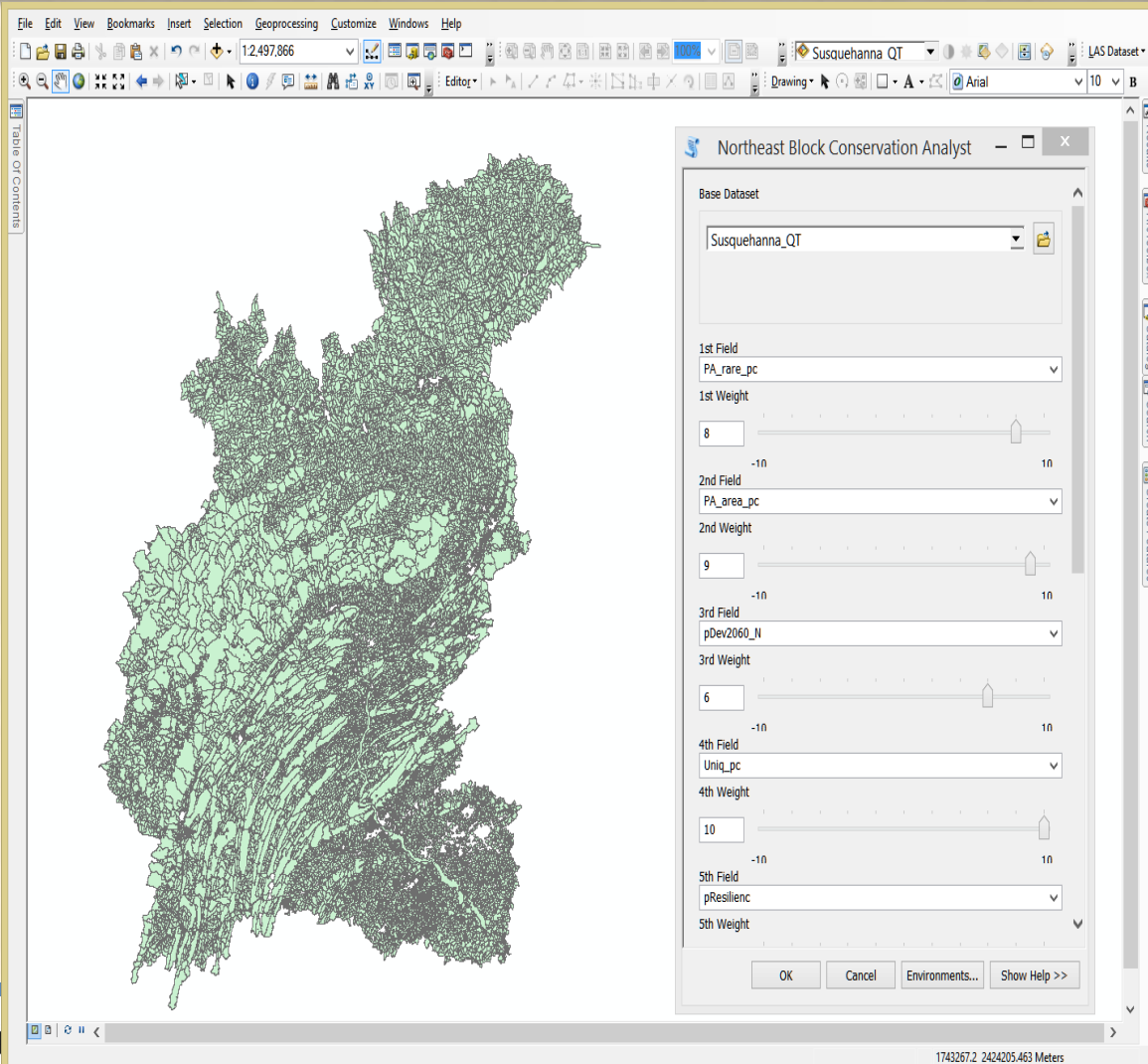


Susquehanna Greenway  
Partnership



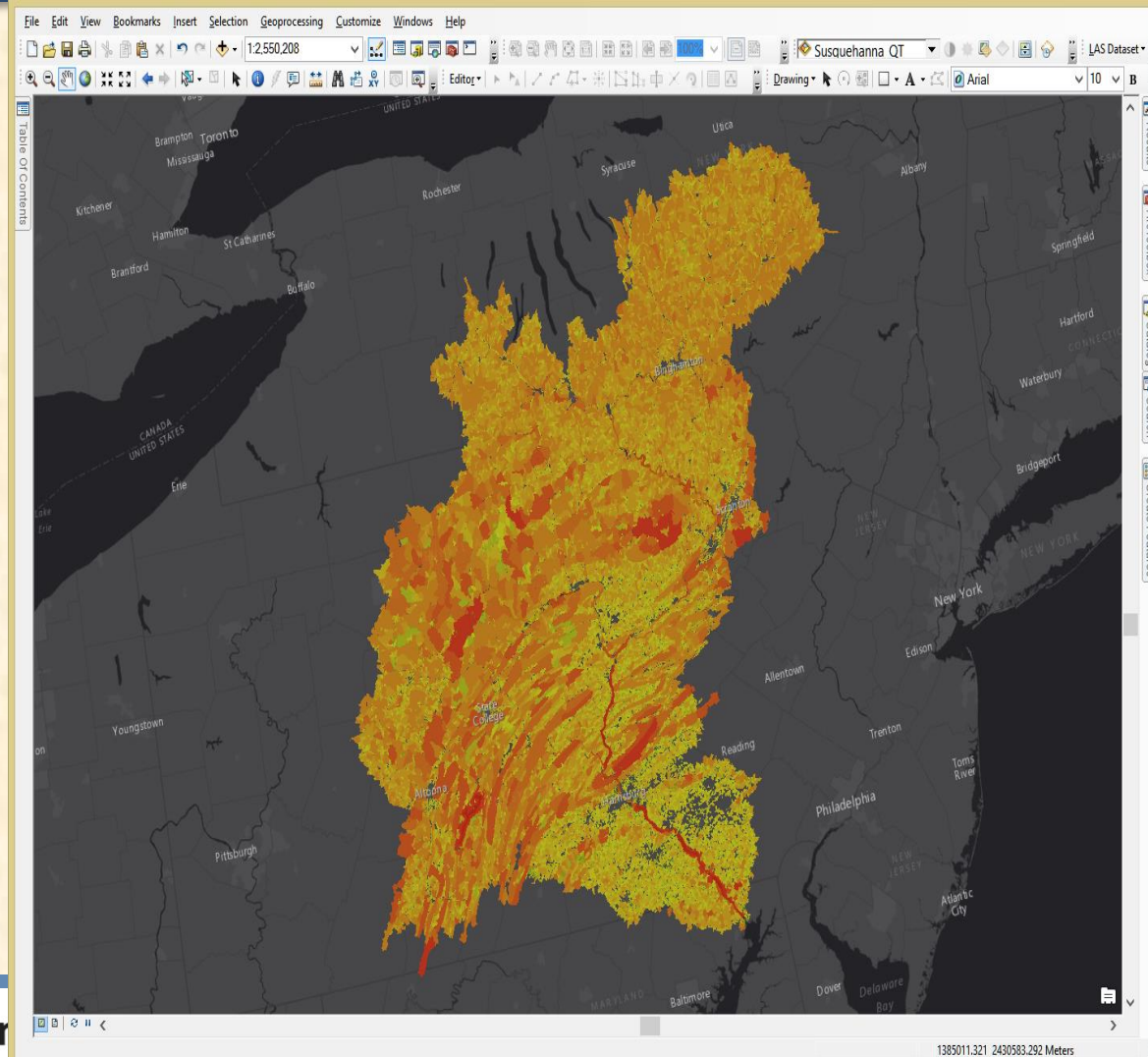
# Northeast Block Conservation Opportunities Analyst

- Tool was developed for the North Atlantic LCC using TNC geospatial data
- Users can weight up to 10 variables that have been calculated and normalized across the entire North Atlantic region (Maine to Virginia)



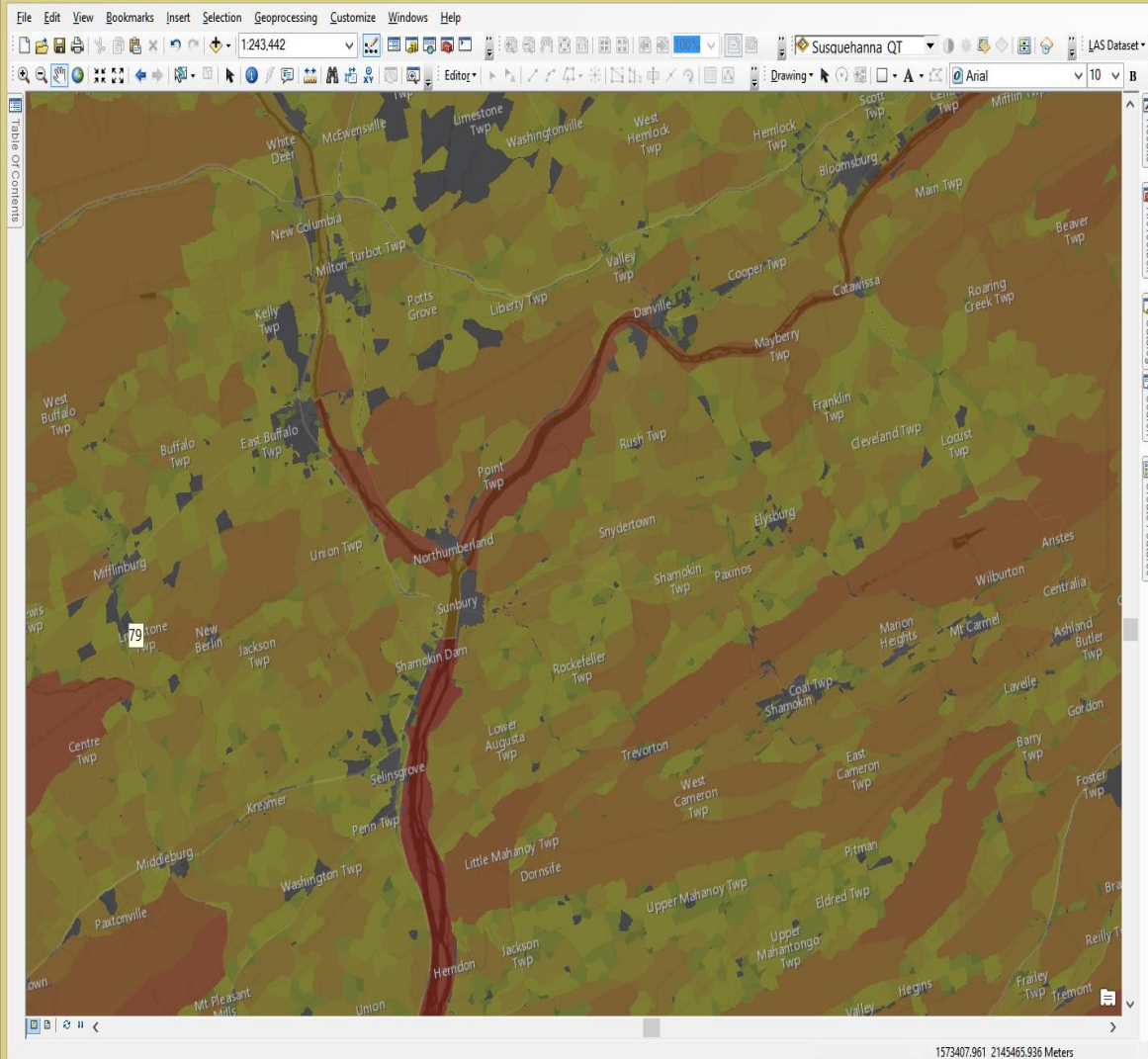
# Northeast Block Conservation Opportunities Analyst

- For our analysis, we used 6 variables from the NALCC data and added two additional variables:
  - Importance for Public Access
  - Relationship to Existing Protected Land



# Northeast Block Conservation Opportunities Analyst

- Using these results, we are working to identify priority landscapes where we will conduct further community engagement and work with local stakeholders to understand their priorities
- We are also working with local, county, and state governments to expand the understanding and use of these datasets



# ETS Advisory Council

- Bucknell University
- Chesapeake Bay Commission
- Chesapeake Conservancy
- **County Planning Directors Assn.**
- Endless Mountain Heritage Area
- Foundation for PA Watersheds
- Haudenosaunee Environmental Task Force
- **PA Assn. of Conservation Districts**
- PA DCNR
- PA Environmental Council
- PA Fish and Boat Comm.
- PA Game Comm.
- **PA Land Trust Assn.**
- PA Municipal Authorities Assn.
- Susquehanna Gateway Heritage Area
- **Susquehanna Greenway Partnership**
- **Susquehanna Heartland Coalition**
- Susquehanna River Basin Comm.
- Trout Unlimited
- USFWS
- **Upper Susquehanna Conservation Alliance**
- Wildlife Management Institute

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*Saving the Chesapeake's Great Rivers and Special Places*



1. Land Protection Under Climate Change
2. Guide to Applying the Datasets
3. Climate Data State by State
4. Case Studies



**OPEN SPACE  
INSTITUTE**

OSI has conducted two focus groups and has one more scheduled in partnership with Highstead



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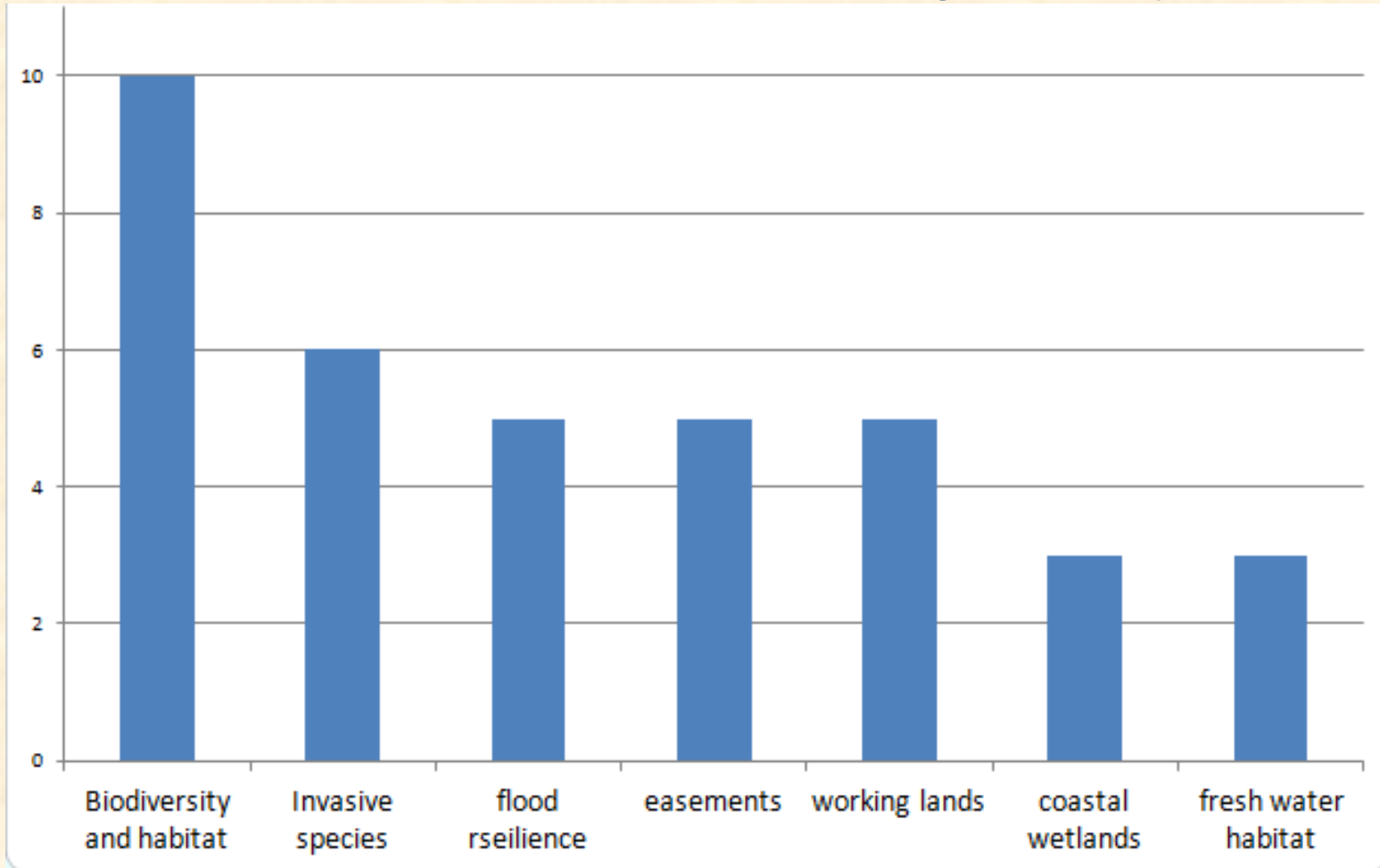




OPEN SPACE  
INSTITUTE

# What issues are you most concerned about for climate change?

Responses from a targeted survey of 15 land trusts



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# Focus Group Quotes

“Lots of land trust protection is **reactive**. We reach out to landowners about stewardship and then find out if they want to protect their land.”

“We use older and recently gathered classic natural resource inventories; ecologists go out in the field and then put info on the map.”

“In VT before [the TNC Terrestrial Resilience] data came out, we were working with forest block data and have used for five years; new data come out and people say, ‘We don’t need this new stuff.’”





OPEN SPACE  
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# 1: Land Protection under Climate Change

## A Shared Vision:

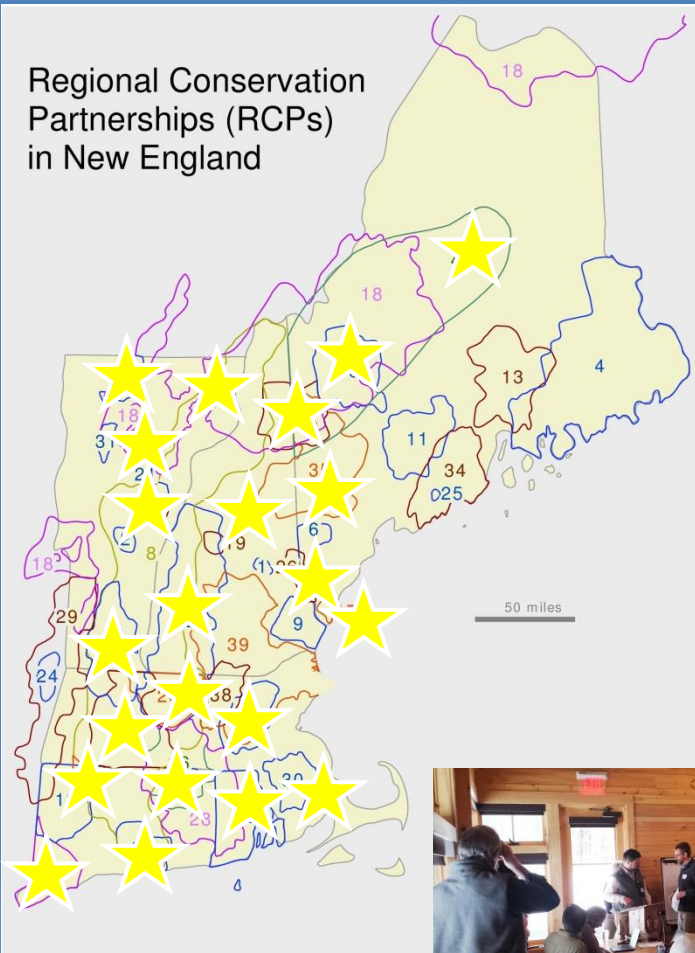
To ensure the existence of a *connected* network of intact conservation areas that is *resilient* to climate change and that will support the full range of *biological diversity* under changing and *unpredictable conditions*.

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# RCP Network Science Delivery Workshops on CT LCD, NALCC Data Sets, and Guidance Documents Sept. 2014 - April 2015

Regional Conservation Partnerships (RCPs) in New England



- 515 Participant-hours
- 22 RCPs ★

