



**New resources and partnerships
for the land conservation community**

13th Annual Pennsylvania Land Conservation Conference

May 7-9, 2015 | Wyndham Gettysburg

Mission

To strengthen the connection between people and the watershed, conserve the landscapes and special places that sustain the Chesapeake's unique natural and cultural resources, and encourage the exploration and celebration of the Chesapeake as a national treasure.



Captain John Smith Chesapeake National Historic Trail

- **Signed into law in 2006**
 - Nation's first Historic Water Trail
 - Akin to the Appalachian Trail
- **Spans 3,800 miles and interprets:**
 - Smith's exploratory voyages
 - 17th century Indian culture
 - Natural history of the region
- **Chesapeake Conservancy serves as:**
 - Primary partner for trail implementation with the National Park Service



Conservation Partnerships

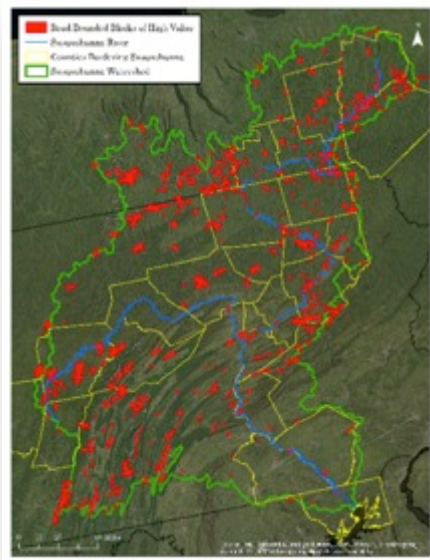
- **National Park Service**
 - Cooperative Agreement to develop Capt. John Smith Trail and carry out large landscape conservation
- **U.S. Fish and Wildlife Service**
 - Cooperative Agreement to implement community-based conservation corridor planning and wildlife education
- **National Geographic Society**
 - Cooperative Agreement to advance the Great Rivers of the Chesapeake initiative
- **National Oceanic & Atmospheric Administration**
 - Task Agreement to investigate land-use impacts on water quality
- **Land Trust, State, and Private Partners**
 - Working together to protect land and programs that fund land protection

Strategic Goals

- *Connect people to the Great Rivers of the Chesapeake*
- *Create a network of conservation corridors*
- *Advance conservation innovation*



The *Envision* Process



“Community supported, scientifically based conservation solutions.”

Envision the Susquehanna Mission

- To restore the **natural beauty** and highlight the **cultural heritage** of the River corridor,
- To support **community-based solutions** to conserving the watershed and its significant places, and
- To **encourage synergy** of such efforts locally and regionally.



Envision the Susquehanna Core Team Partners



- Susquehanna Greenway Partnership -- **Local Expertise**
- Susquehanna River Heartland Coalition for Environmental Studies -- **Academia**
- Wildlife Management Institute -- **Ecological Expertise**
- PA Department of Conservation and Natural Resources -- **State Knowledge**
- National Park Service, Chesapeake Bay Office -- **Cross-Boundary Vision**
- Chesapeake Conservancy -- **Large-landscape Vision**



Envision the Susquehanna Phases



- Phase I: Comprehensive Data Assessment & Stakeholder Engagement
 - Conservation Innovation Center
 - Community Engagement Campaign
 - Comprehensive Plans Analysis
- Phase II: Analysis & Vision Development
- Phase III: Collaboration & Implementation

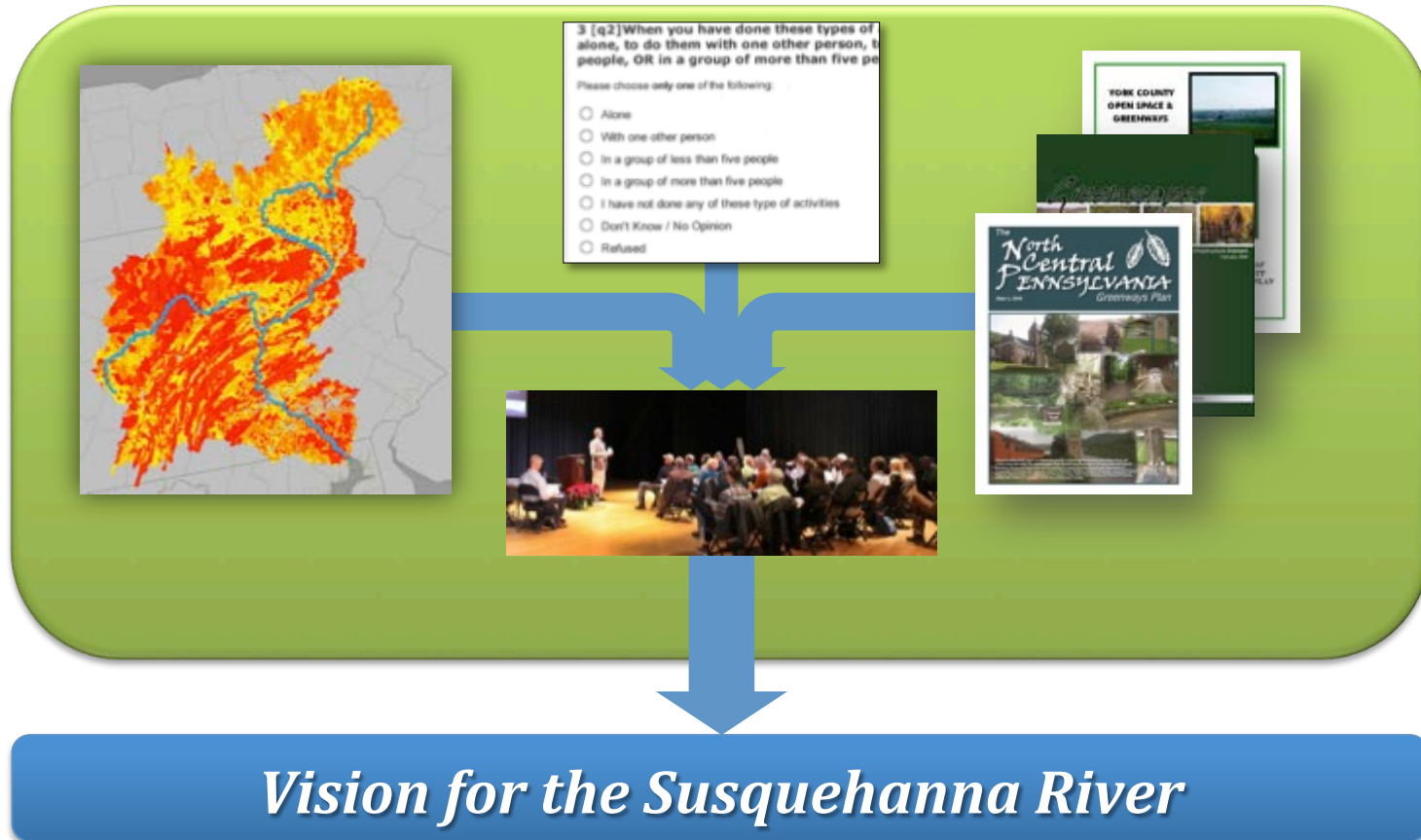
On-Going Work:

Fundraising

Outreach

Representative
Projects

The *Envision* Process



Envision the James

- Resident Survey: Water Quality & Wildlife Habitat Protection
- Robert E. Lee Soil and Water Conservation District
- Amherst Streamside Tree Buffer Program
- Landowners ineligible for cost-share money
- Chesapeake Conservancy's high-resolution land use data and flow path data
- Funding through *Envision the James*
- Export the Tree Buffer Program to other counties

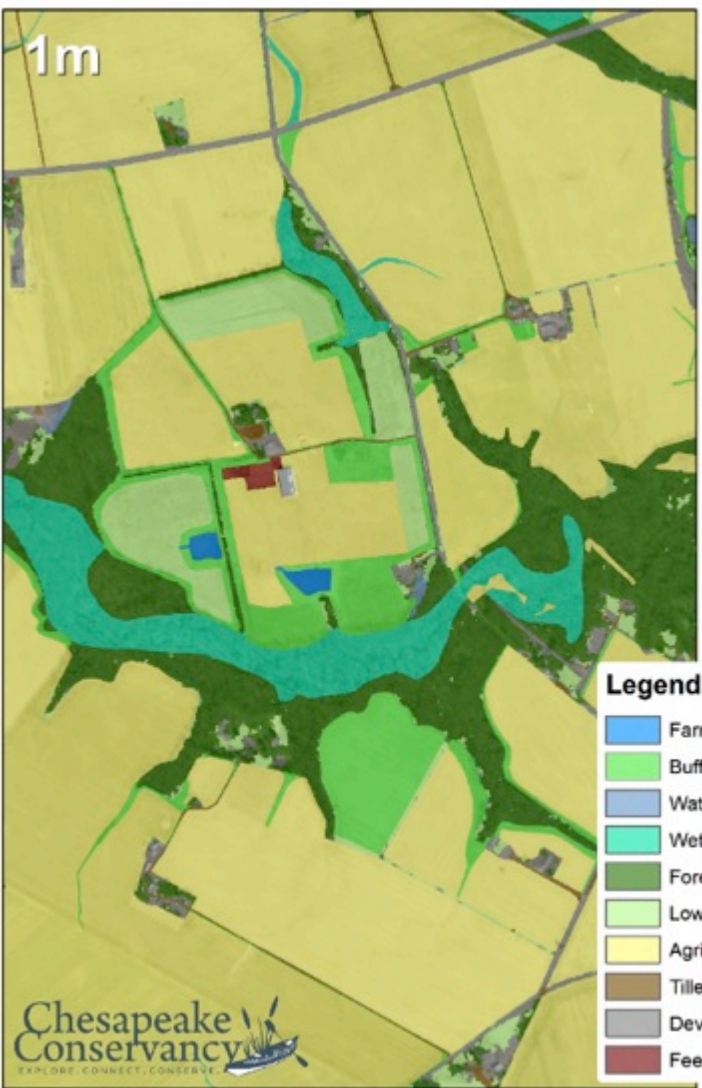
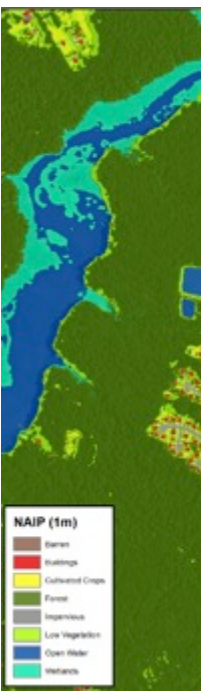
Envision the James

- Started in Fall of 2014.
- 2 acres, 525 trees, 1800 linear ft. restored. Sits between two creeks that run through the property.
- Previously used for cattle crazing, the goal is to restore grazing area to bottomlands hardwood forest.
- District will monitor the health of the buffer going forward.



Envision the Susquehanna

Data A



A

D

Combining Data with Large Landscape Conservation



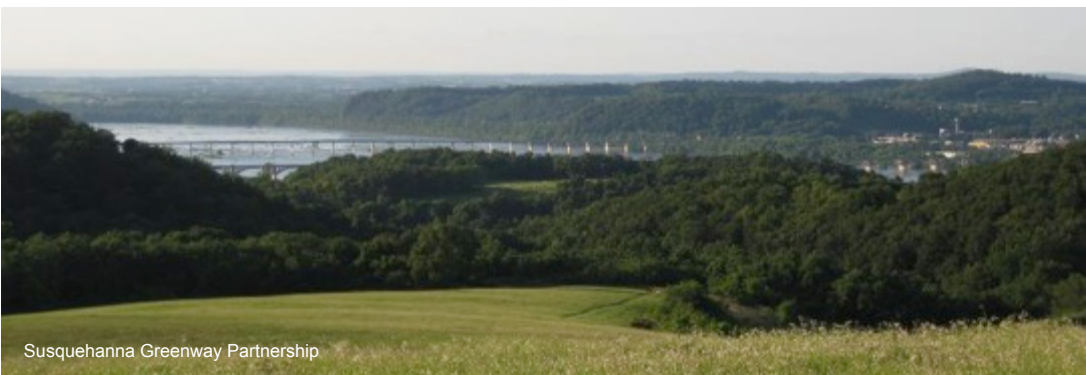
Indicator Species Assessments



Crowd Sourced Data

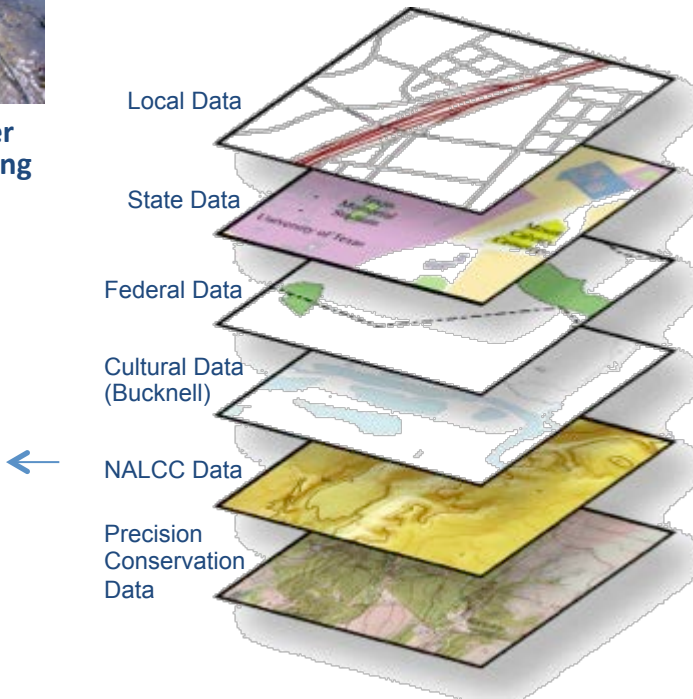


In-stream Water Quality Monitoring



Susquehanna Greenway Partnership

Better Understanding of What Land to Protect and What Land to Restore



North Atlantic Landscape Conservation Cooperative
Conservation Planning Atlas

Search by keyword or location

Powered by DATA BASIN

Get Started Browse Create My Workspace

What is the North Atlantic LCC Conservation Planning Atlas (CPA)?

What is the North Atlantic LCC?

What can I do?

How do I start exploring?

The North Atlantic LCC Conservation Planning Atlas is a platform for easy access to high-quality geospatial datasets, maps and information to facilitate partner-driven conservation. [Learn more](#)

Get started quickly with the North Atlantic LCC Conservation Planning Atlas [Take a Tour](#)

North Atlantic LCC Galleries...

Terrestrial

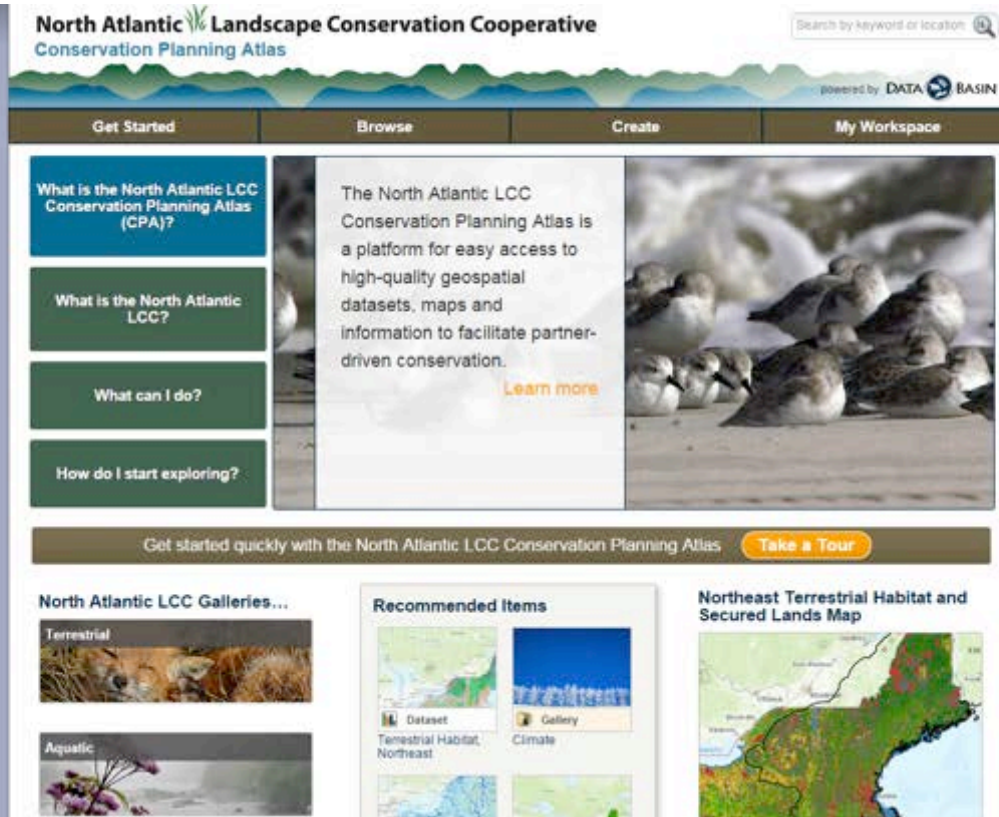
Aquatic

Recommended Items

Dataset: Terrestrial Habitat, Northeast

Gallery: Climate

Northeast Terrestrial Habitat and Secured Lands Map



<http://nalcc.databasin.org/>

<http://nalcc.databasin.org/>

Terrestrial

Created by North-Atlantic LCC | May 31, 2013 | Last modified Dec 11, 2014

This gallery is visible to everyone

About
A gallery showcasing terrestrial oriented projects, data, and maps.

Tags
terrestrial, terrestrial habitat, gallery

Gallery contains
34 Datasets
1 Map

Usage
bookmarked by 1 member

Gallery Contents


Sort by: Date | Display: [Grid]

Northeast Index of Ecological Integrity, 2010

Uploaded by North-Atlantic LCC | Oct 6, 2014 | Last modified Apr 14, 2015

Download [icon]

[Open in Map](#)



Description
This dataset depicts the ecological integrity of ecoregions (represented by 30-m grid cells) throughout the northeastern United States based on environmental conditions existing in approximately 2010. Ecological integrity is defined as the ability of an area (e.g., local site or landscape) to sustain important ecological functions over the long term. In particular, the functions include the long-term ability to support biodiversity and the ecosystem processes necessary to sustain biodiversity.

The Index of Ecological Integrity (IEI) is expressed on a relative scale (0 to 100) for ecological systems mapped on a modified version of the Northeast Terrestrial Habitat Map, developed by the Nature Conservancy and the northeastern states. Ecological systems are recurring groups of biological communities found in similar environments at scales from tens to thousands of acres and typically persisting for 50 or more years. Examples of the more than 100 mapped systems include "Acadian-Appalachian Montane Spruce Fir Forest" and "Northern Atlantic Coastal Plain Tidal Salt Marsh."

For purposes of calculating the index, habitat on private property is treated as private property.

Details | **Data Layers (3)**

Data Provided By:
University of Massachusetts

Data Hosted by:
Sciencelake (USGS) | [View Sciencelake Record](#)

Map Service URL:
<https://www.sciencelake.gov/layers/services/Catalog/5422c67e490b13ba54222696MapServer>

Content date: 2014-10-02 (Publication Date)

Contact Organization:
University of Massachusetts

Contact Person(s):
Kevin McGeoghan

Use Constraints:
None

This dataset is visible to everyone

Dataset Type: External Map Service (ArcGIS)

Tags:
ecosystems, environmental condition, designing sustainable landscapes, terrestrial habitat

Bookmarked by: 1 Member, 1 Group

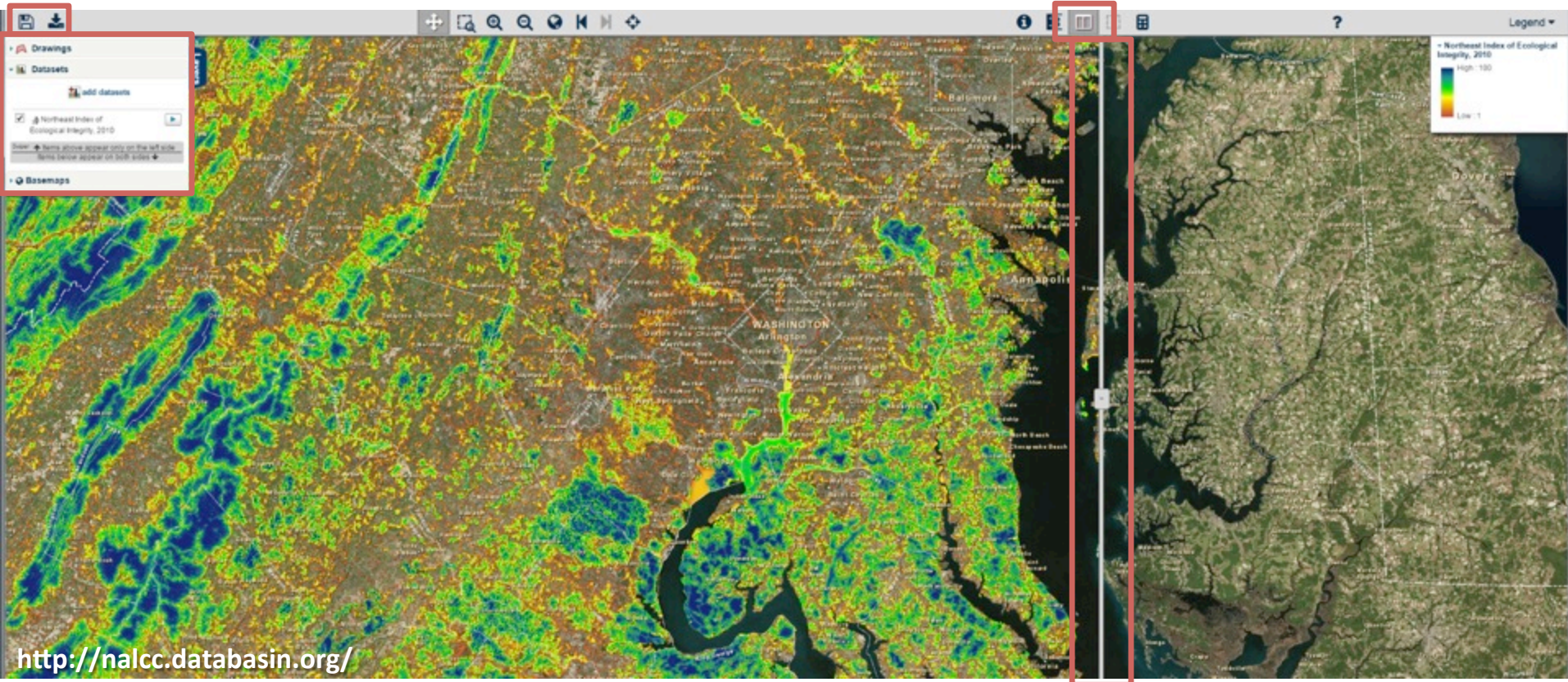
Included in: 4 public maps, 13 private maps

Included in: 2 Public Galleries

- Designing Sustainable Landscapes Datasets
- Terrestrial

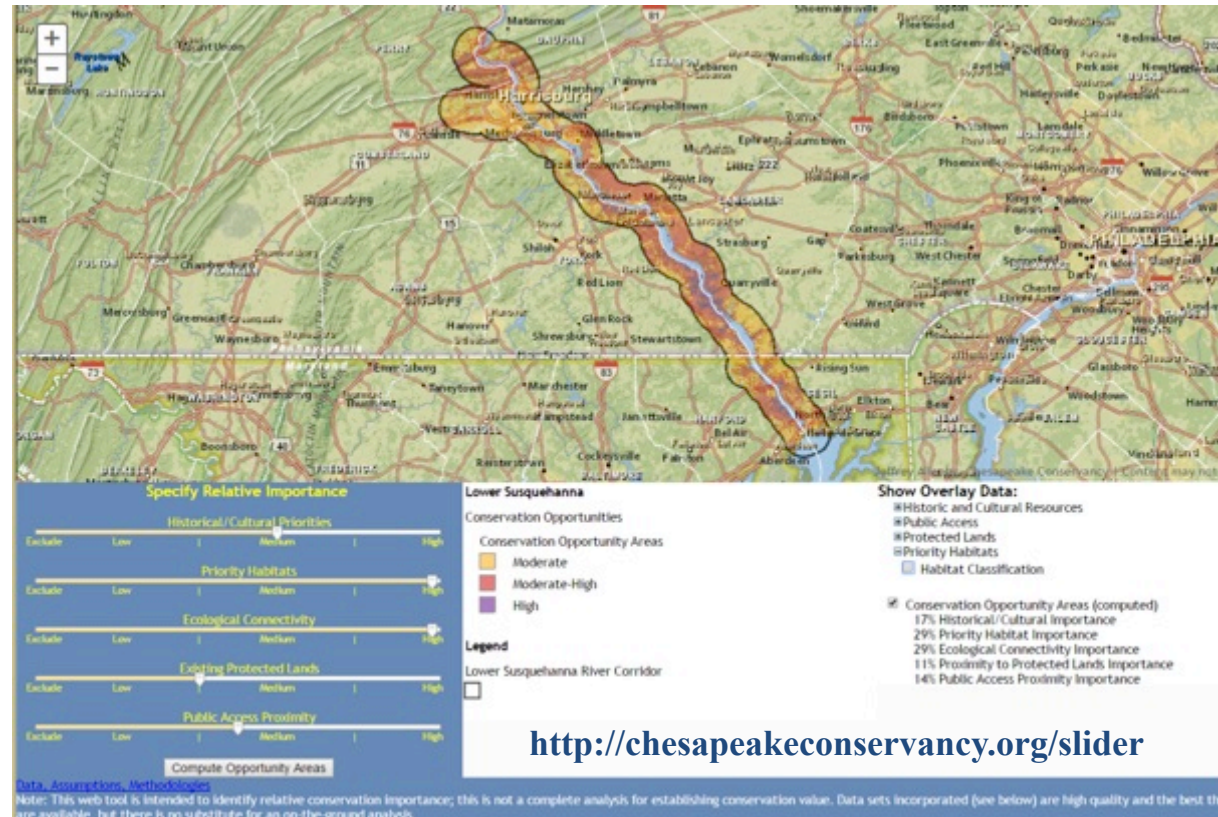
<http://nalcc.databasin.org/>

NALCC DataBasin Site



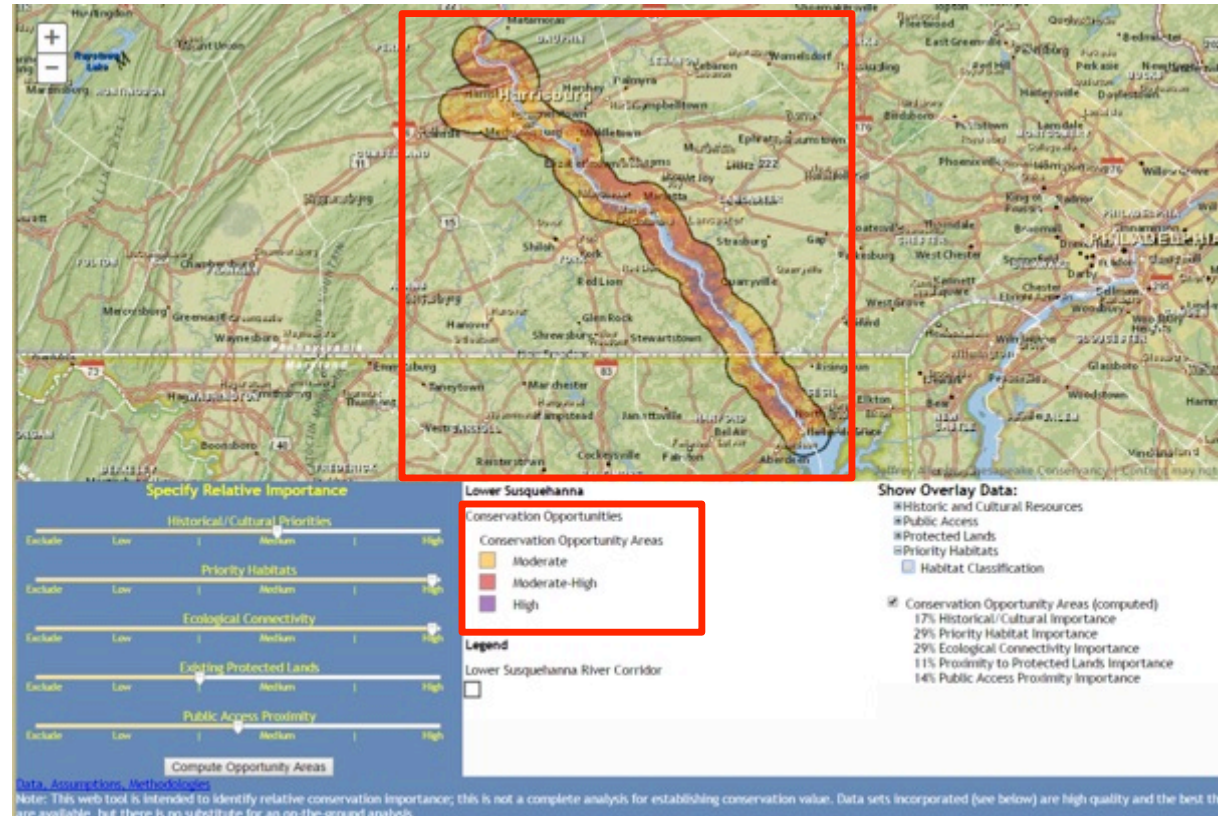
Lower Susquehanna River Conservation Opportunities Analyst

- Allows users to conduct a custom analysis of conservation potential based on THEIR priorities
- Users can visualize how the base data relates to the priority areas that come out of the analysis



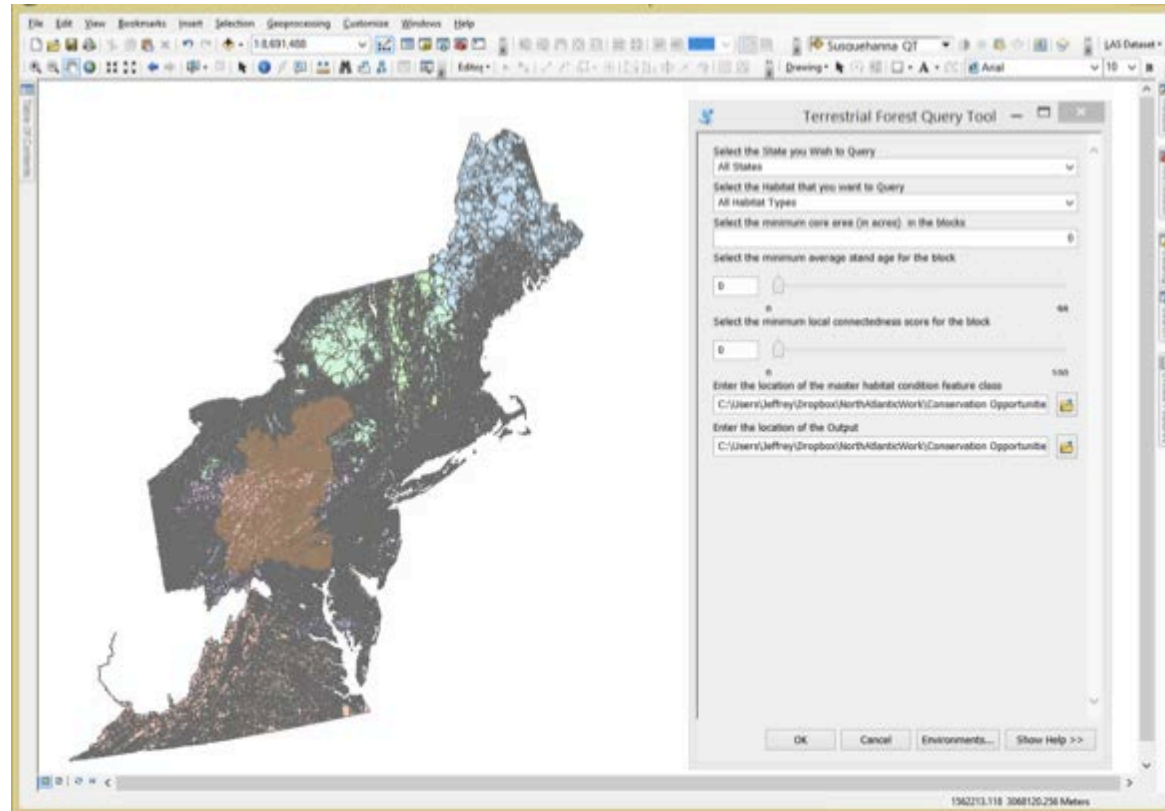
Lower Susquehanna River Conservation Opportunities Analyst

- Resulting dataset shows High, Moderately-High, and Moderate Potential areas based on the custom weighting
- As users adjust the weighting, areas with a high underlying resource value across interests will begin to emerge



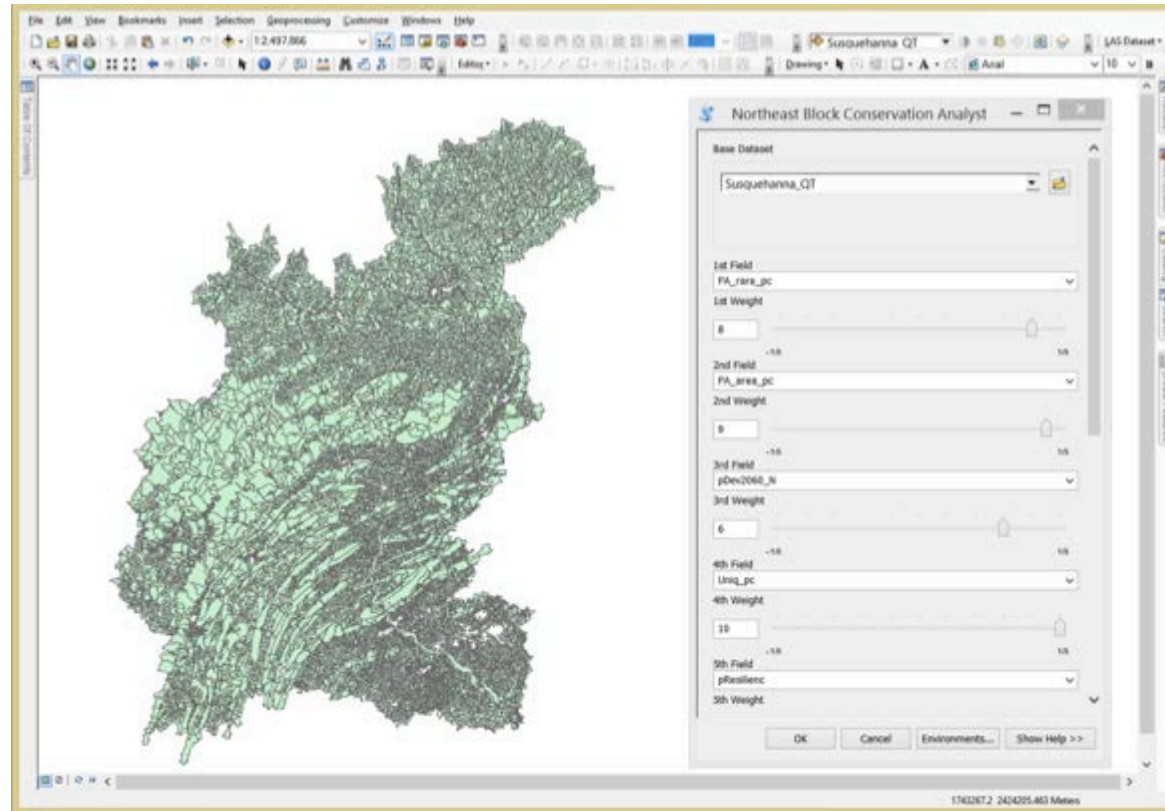
North Atlantic LCC Terrestrial Habitat Query Tool

- Initial tool was developed for the North Atlantic LCC by The Nature Conservancy to identify road bounded blocks of habitat that meet specific criteria (state, habitat type, stand age, core habitat size, connectivity)
- We clipped the dataset down to the Susquehanna River watershed



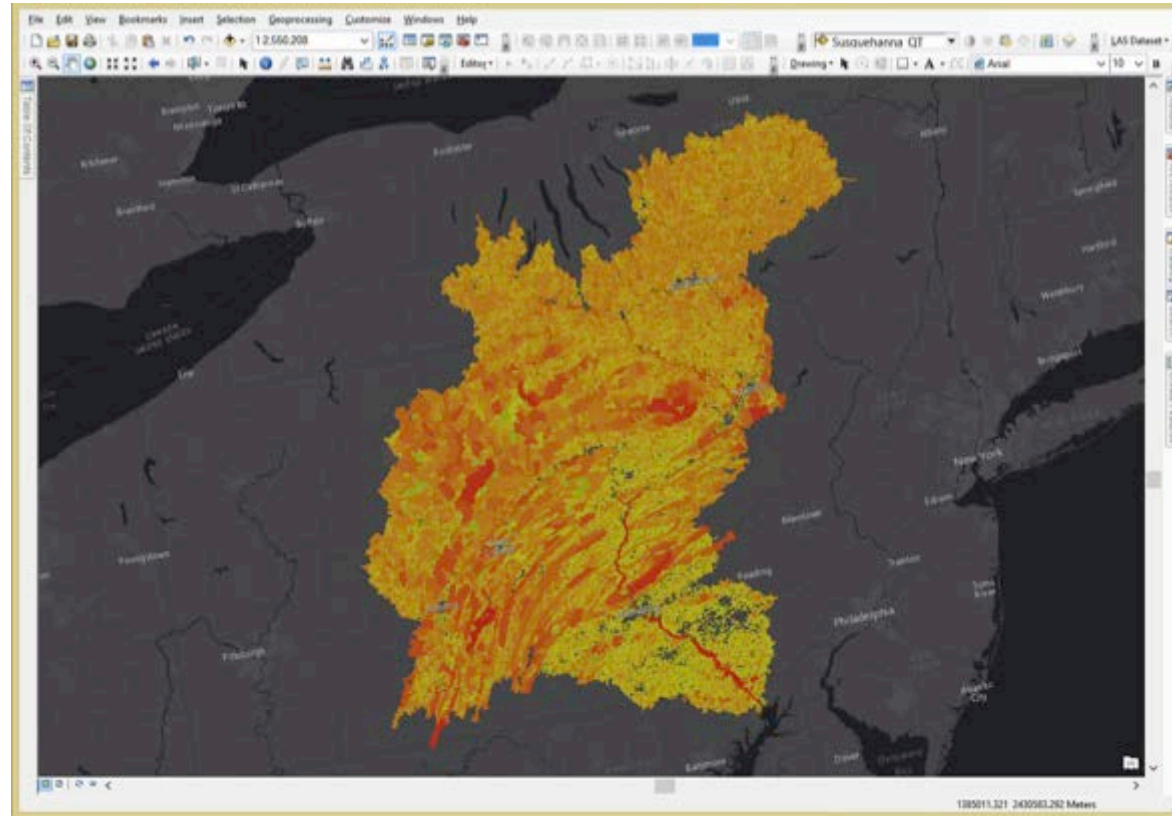
Northeast Block Conservation Opportunities Analyst

- Python based tool was developed in conjunction with the Wildlife Management Institute for the North Atlantic LCC
- Users can weight up to 10 variables that have been calculated and normalized across the entire North Atlantic region (Maine to Virginia)



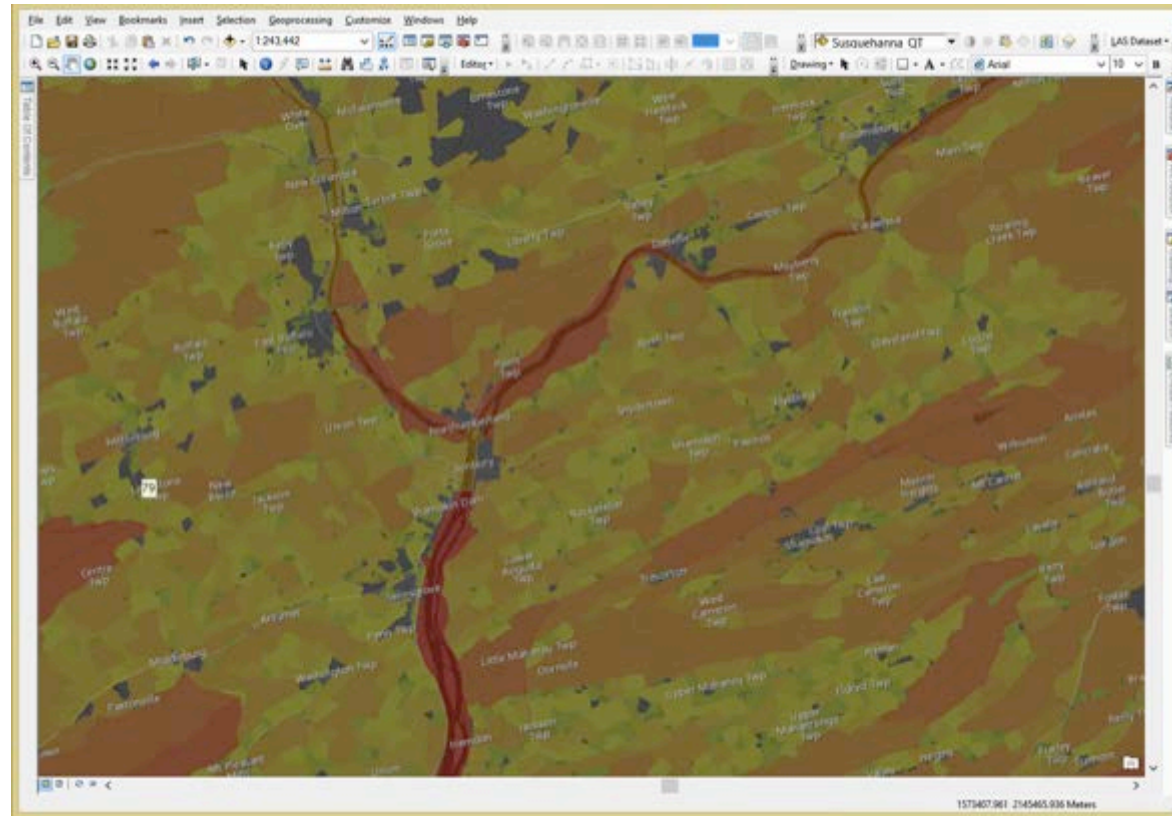
Northeast Block Conservation Opportunities Analyst

- For our analysis, we used 6 variables from the NALCC data and added two additional variables based on criteria that were important for *Envision the Susquehanna*
 - Natural Heritage Areas
 - Relationship to Existing Protected Land



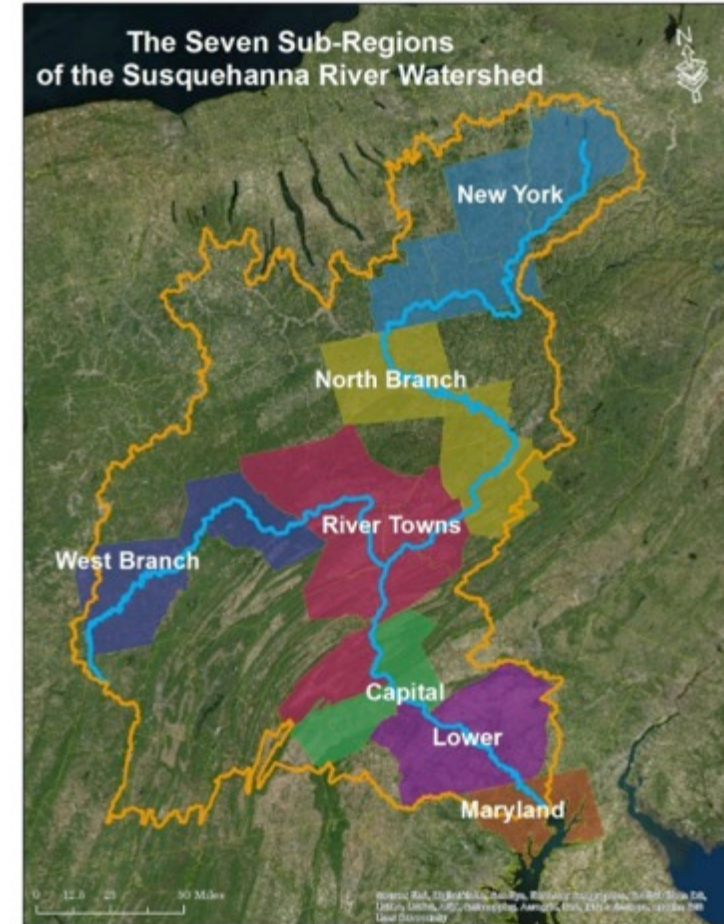
Northeast Block Conservation Opportunities Analyst

- 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



Envision the Susquehanna Key Informant Interviews

- 62 informants
 - Cultural, social, environmental, economic
 - Assets, attitudes, opportunities
- ➔
- Key audiences
 - Issues & opportunities
 - Environmental goals and priorities
 - Conservation work in progress
 - Community openness to various conservation actions



Envision the Susquehanna Regional Phone Survey

- 950+ respondents
- Statistically significant comparisons between the seven sub-regions



- Regional differences & priorities
- Drivers
- Openness to conservation activities
- Non-starters



Envision the Susquehanna Regional Phone Survey



2 [q1]
Next, I am going to ask you about your activities. I'd like to get a sense of how often you do these activities over the past 12 months. Please choose the response that best describes you. **MORE than once a week**

Please choose the response that best describes you.

Fished in the Susquehanna

Used a boat launch facility on the Susquehanna

Relaxed while in or next to the Susquehanna

Biked or walked along the Susquehanna

Visited the Susquehanna to view wildlife

Visited a park along the Susquehanna River

30 [q33]
Next, I'd like to get a sense of the state of the river. Please indicate the profits should be shared among the following groups. **Historical societies**

Please choose the response that best describes you.

Native American history

Agricultural history

Industrial history

Ethnic and Immigrant History

Natural History

25 [q28PA]
I am now going to ask you about organizations and groups that you have heard of that work on issues related to the Susquehanna. Only answer this question if the organization is located in your state. ((State.NAOK == "PA")) Please choose the appropriate response for each item.

Pennsylvania Game Commission

Your County Conservation District

Natural Resources Conservation Service (NRCS)

PA Fish and Boat Commission

US Fish and Wildlife Service

Susquehanna Greenway Partnership

PA Department of Conservation and Natural Resources (DCNR)

Chesapeake Conservancy

National Park Service

Sierra Club

PA Department of Environmental Protection (DEP)

Your County Extension Office

Trout Unlimited

Ducks Unlimited

The Nature Conservancy

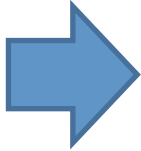
Private Business

34 [q36]
Next I'd like to get a sense of your willingness to give a donation to an organization working to improve the same items I just listed. A quick reminder, I am **not** asking you these questions to solicit money. For the following list, please tell me if you **Would be willing OR Would not be willing**, given your current financial circumstance, to donate money to a non-profit organization to work on that issue. The first is:

Please choose the appropriate response for each item:

	Would be willing to donate	Would not be willing to donate	Don't Know / No Opinion	Refused
Public Schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural Land Preservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Open Space Preservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bike Paths	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Libraries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring land for hunting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boat Launches and other river access opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Purchasing private land adjacent to the Susquehanna River for conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring land to manage flood impacts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring land to protect wildlife habitat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Envision the Susquehanna Plans Analysis

- 36 Comprehensive and Open Space Plans
 - Distance reading of over 5,500 pages
 - Statistical analysis of term frequency
 - Process for public input
- 
- Key themes
 - How to be additive to on-going activities
 - How much has the public been engaged thus far



Envision the Susquehanna Plans Analysis



- 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

Envision the Susquehanna

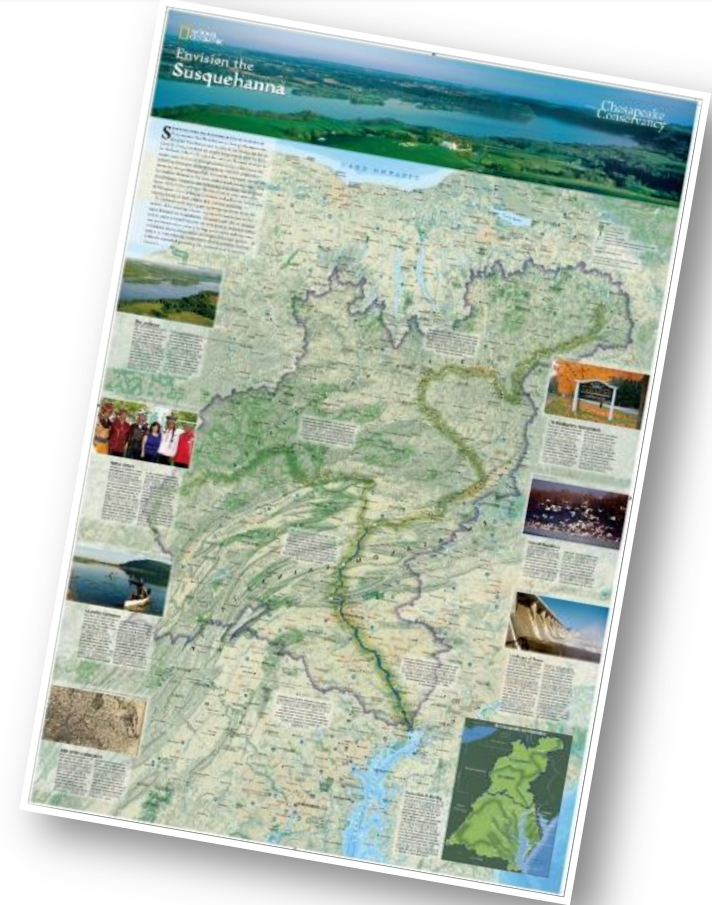
Next steps

- Stakeholder Workshops:
 - Have high natural, historical, and cultural resource conservation value
 - Are amenable to working with us
 - Where we can add the most value



Envision the Susquehanna Analysis & Vision Development

- Scientifically-based, community supported *Vision for the Susquehanna River*
- Comprehensive data layers for entire watershed
- 1,000 + voices of support for land conservation
- Network of protected lands and access sites
- Prioritized wildlife habitat and culturally valued areas



Envision the Susquehanna Implementation

- To restore the **natural beauty** and highlight the **cultural heritage** of the River corridor,
- To support **community-based solutions** to conserving the watershed and its significant places, and
- To **encourage synergy** of such efforts locally and regionally.



Envision the Susquehanna

Next Steps

- Mapping workshop with ETS partners
- Webinar with Dr. Brandn Green; An in-depth discussion on the community engagement campaign for *Envision the Susquehanna*

