Open Space Institute

OSI NJ Grant Programs and Initiatives

Presentation To:

DVRPC: New Jersey Open Space and Farmland Preservation Coordinators Roundtable Session

April 19, 2013

Bayshore-Highlands Fund

- $5 million OSI re-grant program for land acquisition capitalized by William Penn Foundation (WPF)

- Fund requires 5:1 match - $5 million WPF dollars matched by minimum $25 million outside funding

- OSI to raise $1 million to expand initial funding

Funding Criteria

1) Protect important ecological, recreational, agricultural resources

2) Enlarge and connect existing preserved lands

3) Demonstrate urgency

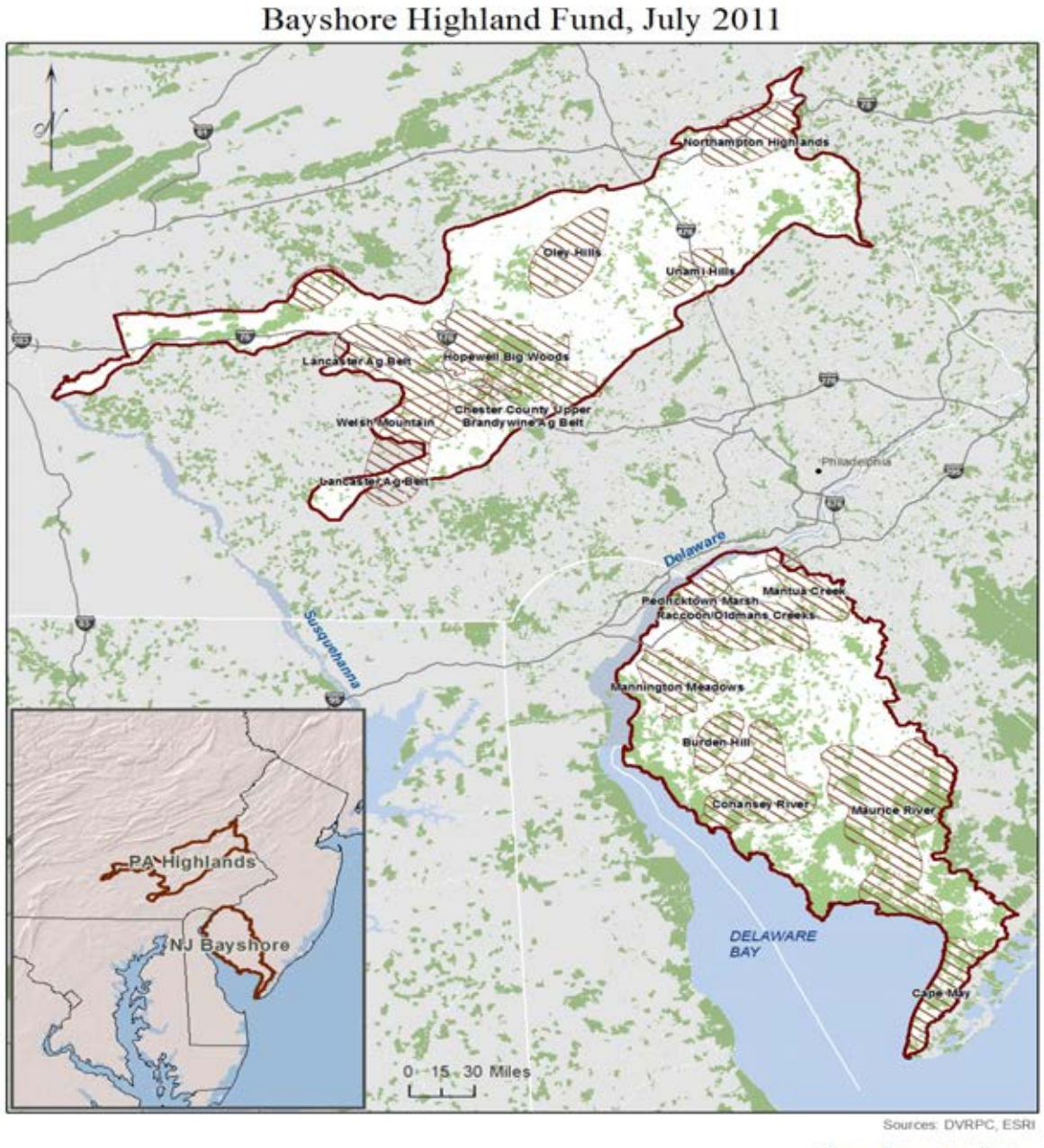
4) Increase or diversify of funding. New funding models and sources

5) Complement previous WPF grants

6) Stewardship

7) Leverage 5 matching dollars,

8) Success - support organizations with the capacity to effectively close deals



Initially 16 focus areas with no detailed analysis of resources and capacity.

Bayshore-Highlands Program
Initial Challenges

Institutional:
Needed to focus Penn Investment, evolve from "Green Measles" map.
Penn grantees not accustomed to an external system for ranking projects

Geographic:
Initial area very broad - needed to prioritize resources, (habitat, water, trails, farmland) aggregate impact at scale in key areas.

Financial:
Not sure we could meet the 5:1 leveraging goal

Bayshore-Highlands Program – Early Program Refinements

Prioritized Geography:

- Initial target - 800,000 acres in 16 focus areas .
- OSI created a focused GIS- based system prioritizing projects around resources.
- Target now < 400,000 acres, dropped several focus areas

Educated grantees in new WPF priorities:

- In first grant round OSI said no to many projects
- Helped grantees understand new priorities
- Required gentle reeducation in new way of working.

Current Status:

- Much tighter focus of priorities in key areas
- Eliminated several of original focus areas
- Created a system to prioritize projects
- Re-education of grantees about new system
- Achieved leverage greater that 5:1 on all projects to date

Fund Accomplishments to Date

- Land Protection:
  38 projects approved, over 3600 acres valued at over $24 million

- Funds Committed: $3 million approved through Round 3
  $2 million left in Fund

- Achieved leverage greater that 5:1 on all approved projects to date

Bayshore-Highlands Fund
Leveraging Initial Investment

Initial Goal:

Match $5 million from Fund with $25 million in additional outside dollars.

Current Status:

Total Funds committed - $3 million

Total Match secured to date $21 million based on approved projects – not all closed yet.

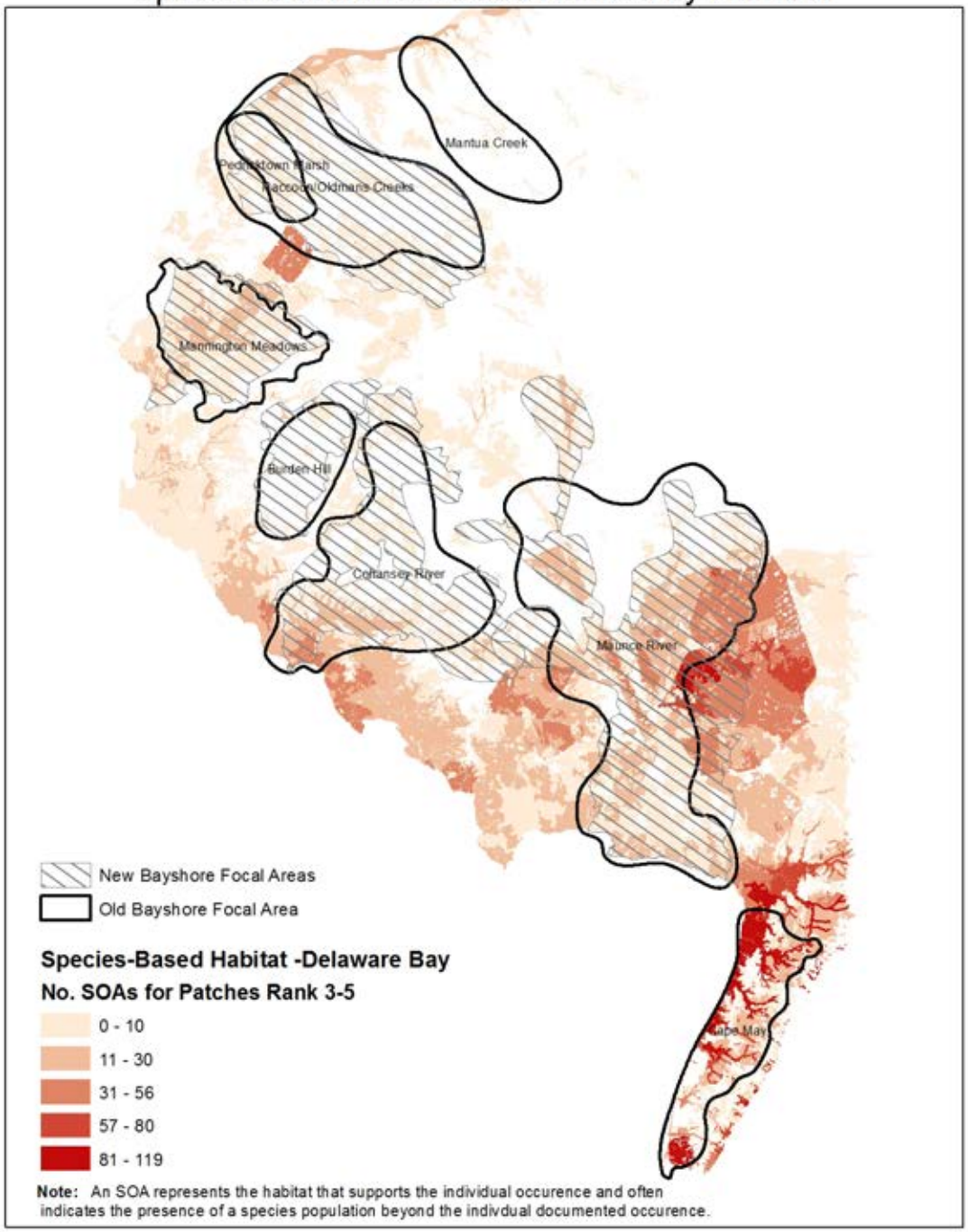
NJ Bayshore

Mapping and Project Prioritization

In the NJ Bayshore we used the following data and criteria:

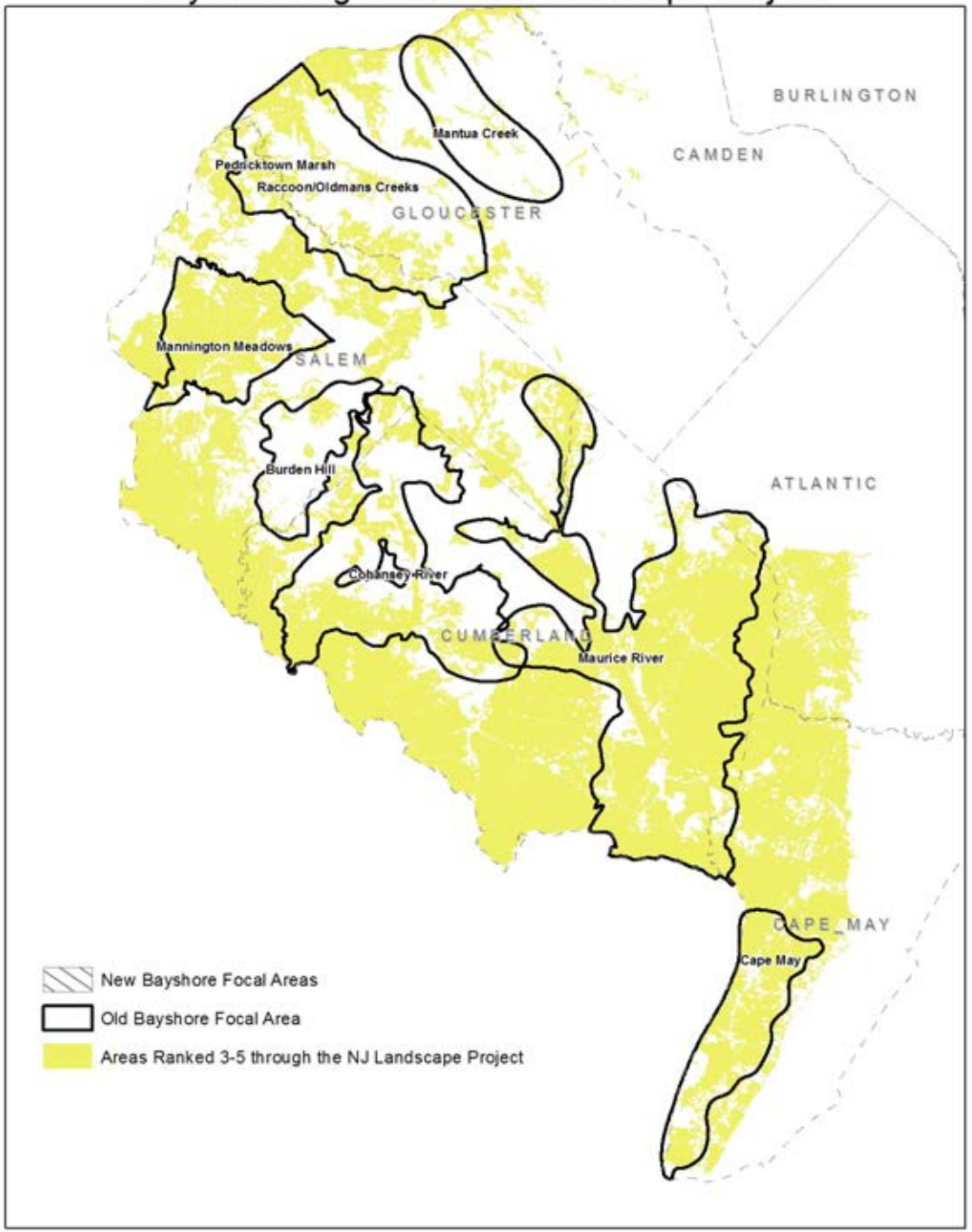
- GIS data from NJ Landscape Project and ½ mile proximity to existing preserved land used to create a priority area overlay.
- Minimum project size of 30 acres
- For farms, soil quality and adjacency to streams
- Compared this overlay to the existing project pipelines of land trusts to see degree of overlap.

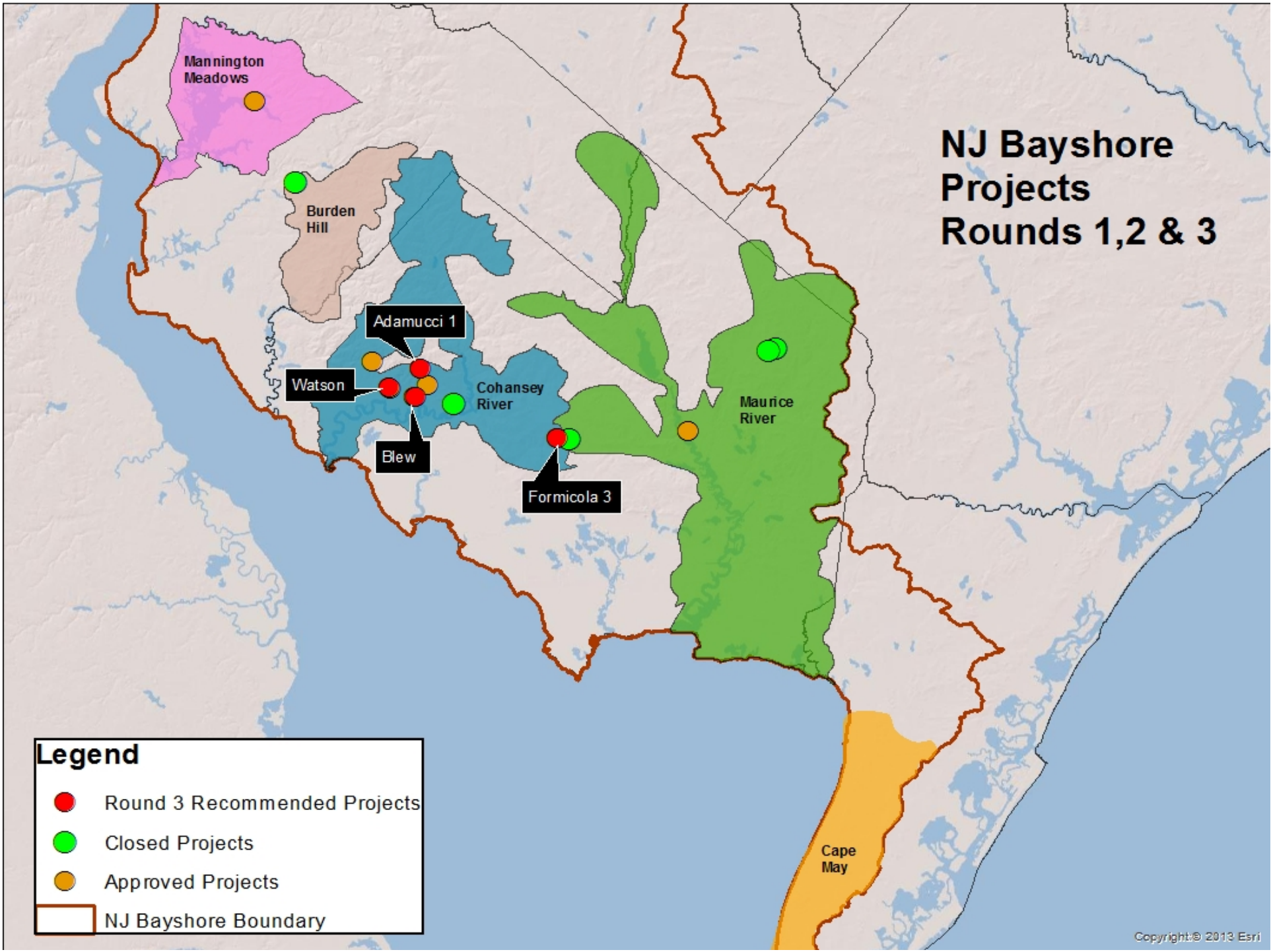
Species Occurence Areas Ranked by Number



Note: An SOA represents the habitat that supports the individual occurence and often indicates the presence of a species population beyond the indivdual documented occurence.

Bayshore Highlands - NJ Landscape Project




NJ Bayshore Projects Rounds 1,2 & 3
Mannington Meadows
Burden Hill
Adamucci 1
Watson
Blew
Cohansey River
Formicola 3
Maurice River
Cape May
Legend
Round 3 Recommended Projects
Closed Projects
Approved Projects
NJ Bayshore Boundary
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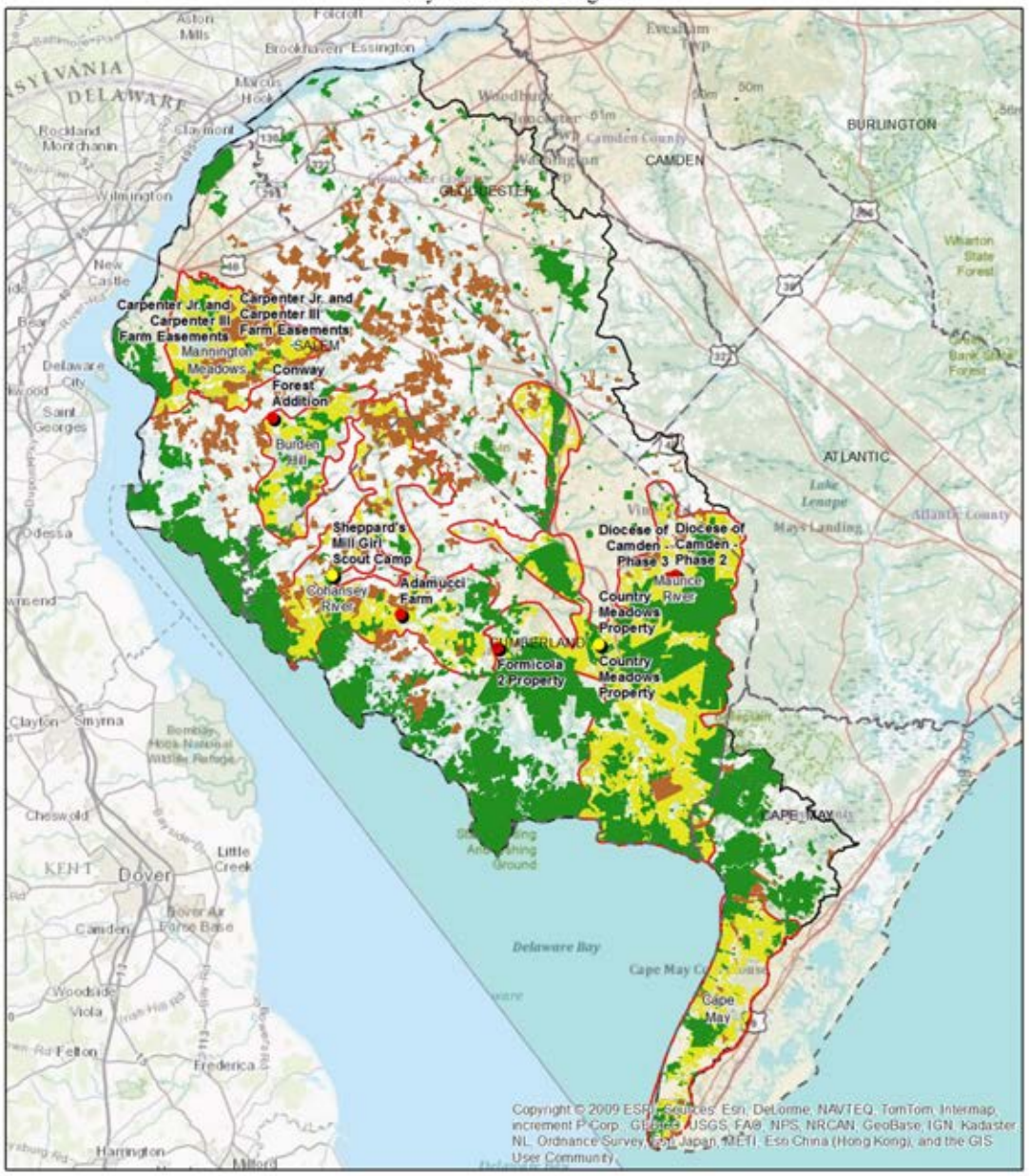
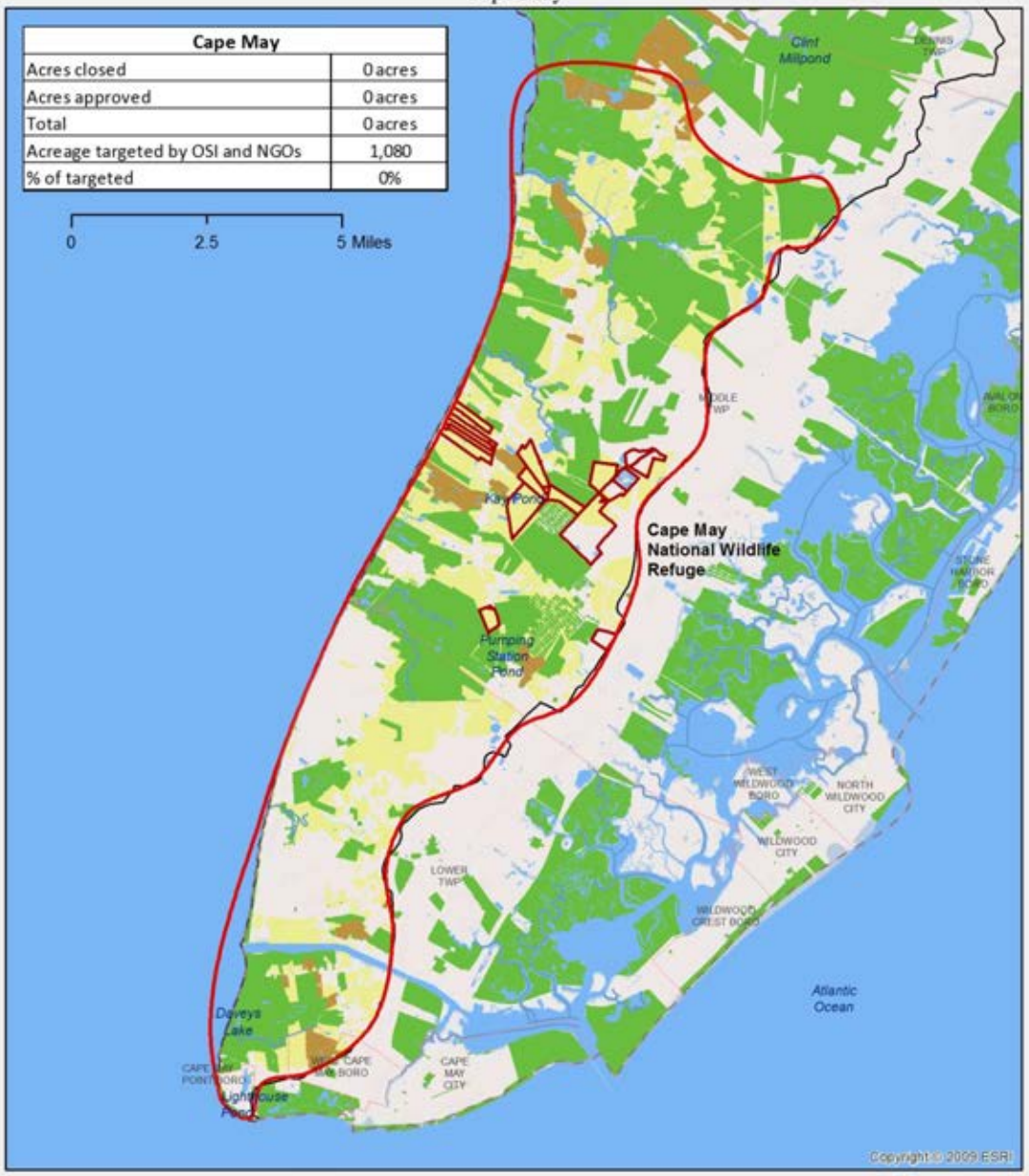
Approved and Completed Projects - December 2012
Bayshore Focus Region



Approved and Completed Projects - February 2013

Cape May

Cape May	
Acres closed	0 acres
Acres approved	0 acres
Total	0 acres
Acreage targeted by OSI and NGOs	1,080
% of targeted	0%



Open Space Institute Projects

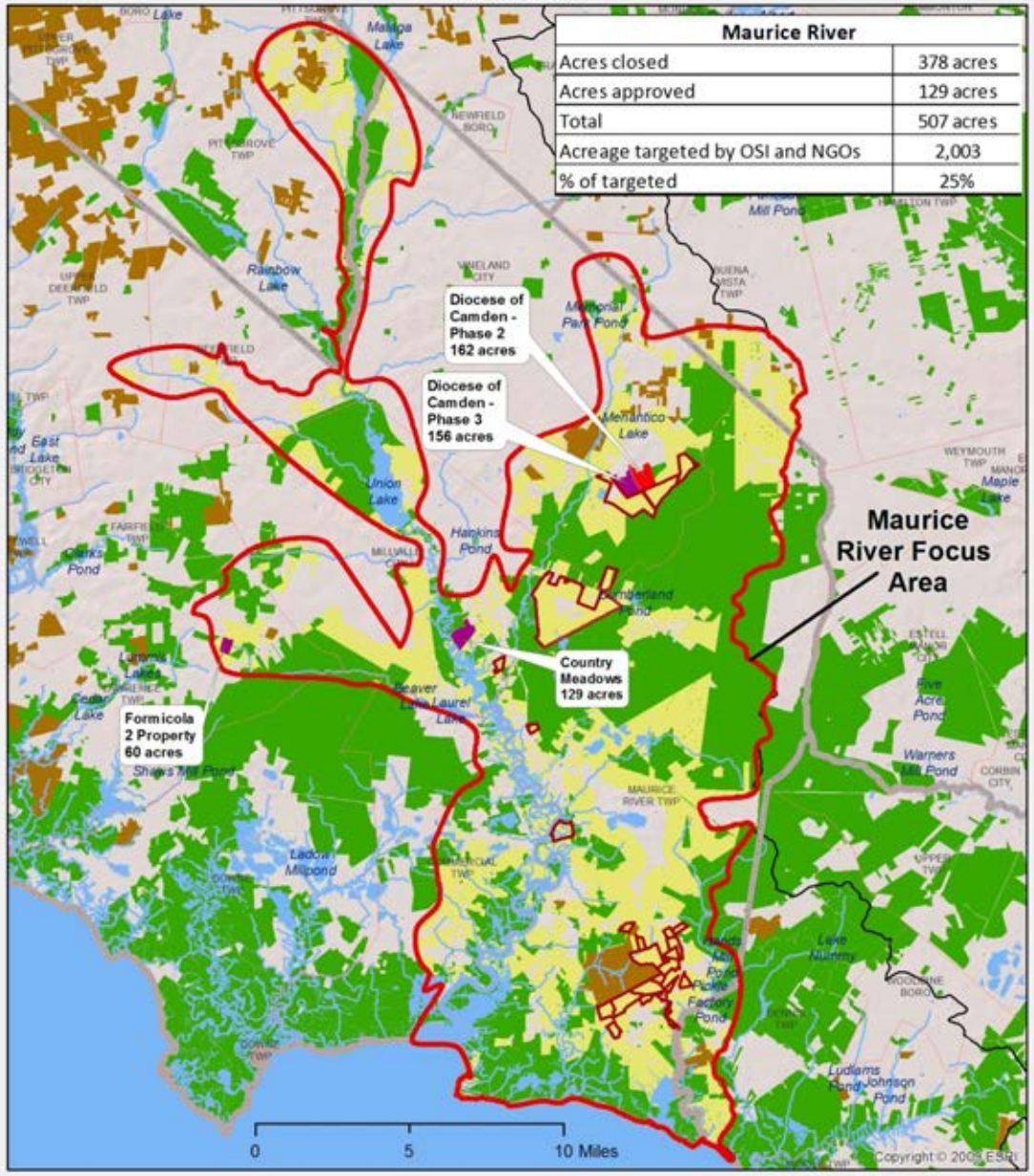
- Approved
- Disbursed

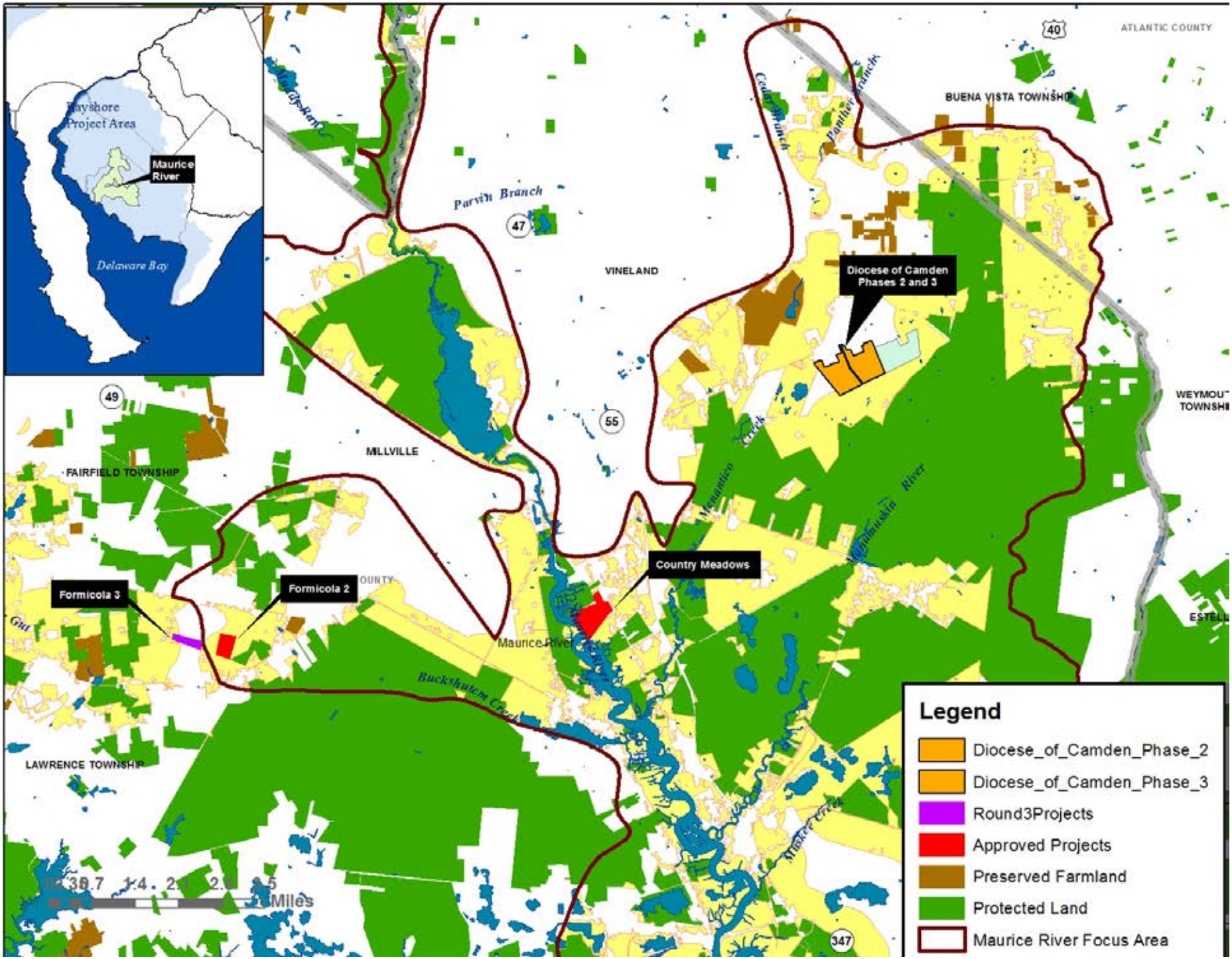
- Bayshore Focal Areas
- Pipeline Projects

- Preserved Open Space
- Preserved Farmland
- Priority Resource Area

Open Space Institute

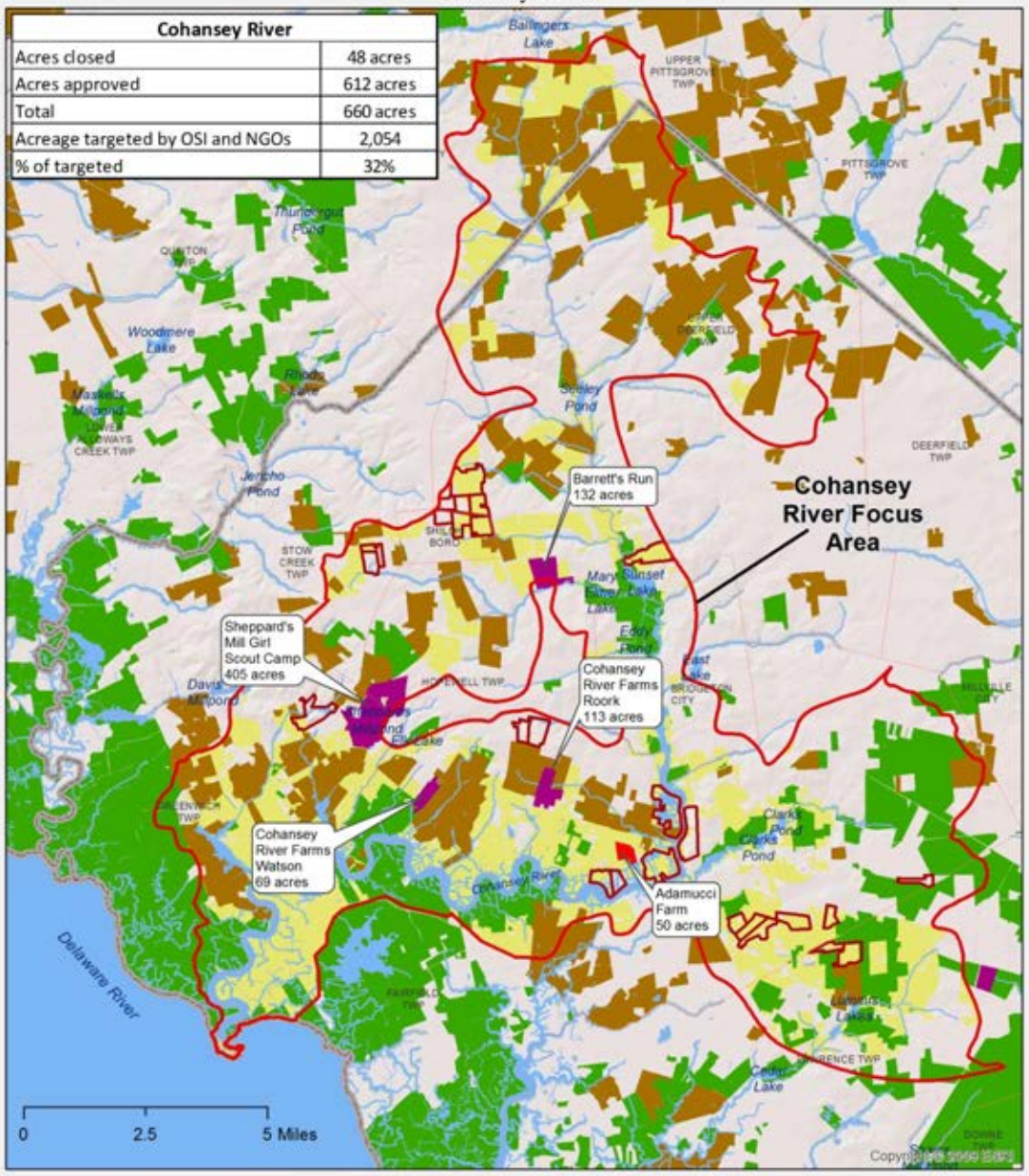
Approved and Completed Projects - February 2013
Maurice River

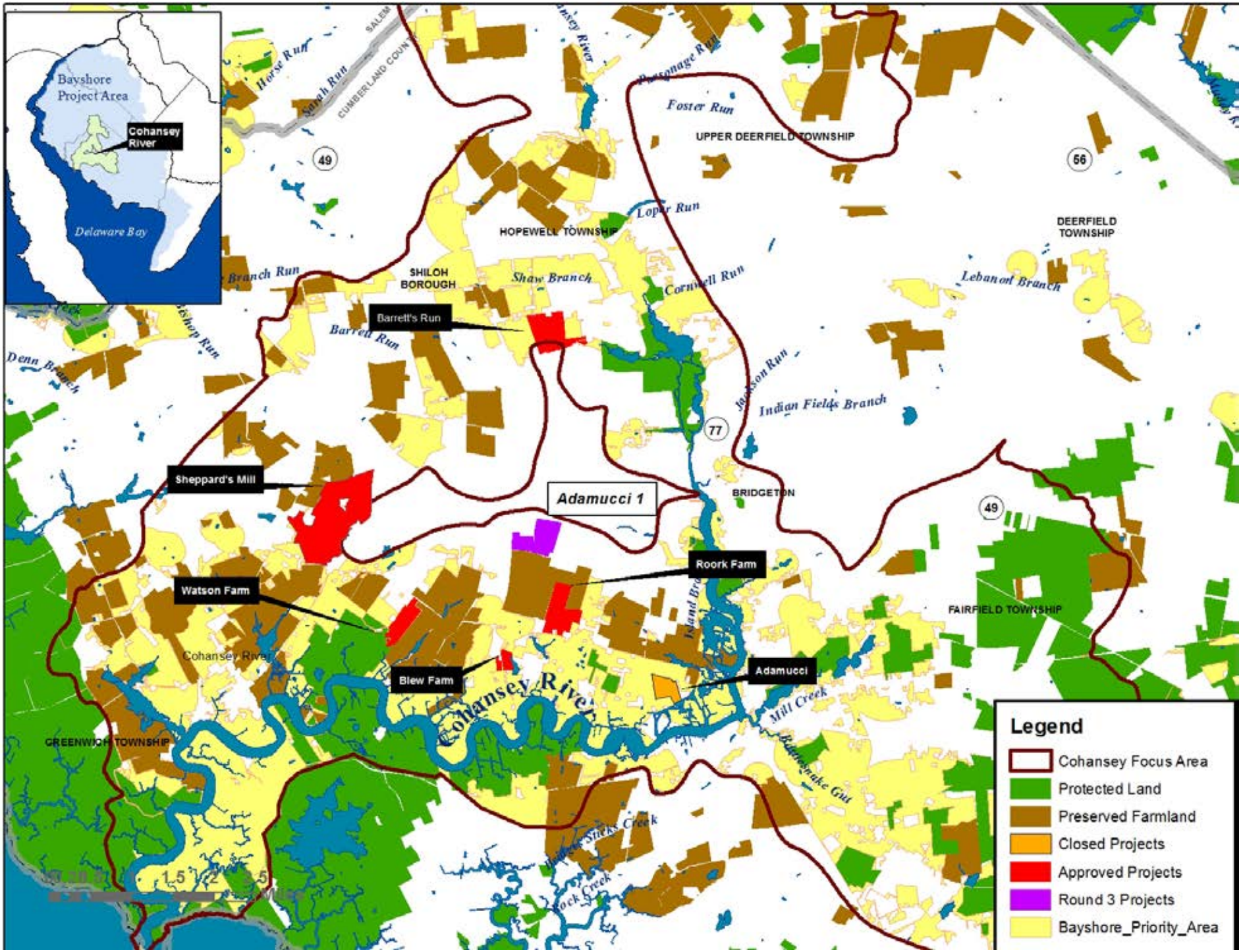



Bayshore Project Area
Maurice River
Delaware Bay
Parvin Branch
VINELAND
MILLVILLE
FAIRFIELD TOWNSHIP
LAWRENCE TOWNSHIP
BUENA VISTA TOWNSHIP
ATLANTIC COUNTY
Diocese of Camden Phases 2 and 3
Country Meadows
Formicola 2
Formicola 3
Maurice River
Buckshutem Creek
Menantico Creek
Manumuskin River
Panther Branch
47
49
55
40
347
Legend
Diocese_of_Camden_Phase_2
Diocese_of_Camden_Phase_3
Round3Projects
Approved Projects
Preserved Farmland
Protected Land
Maurice River Focus Area

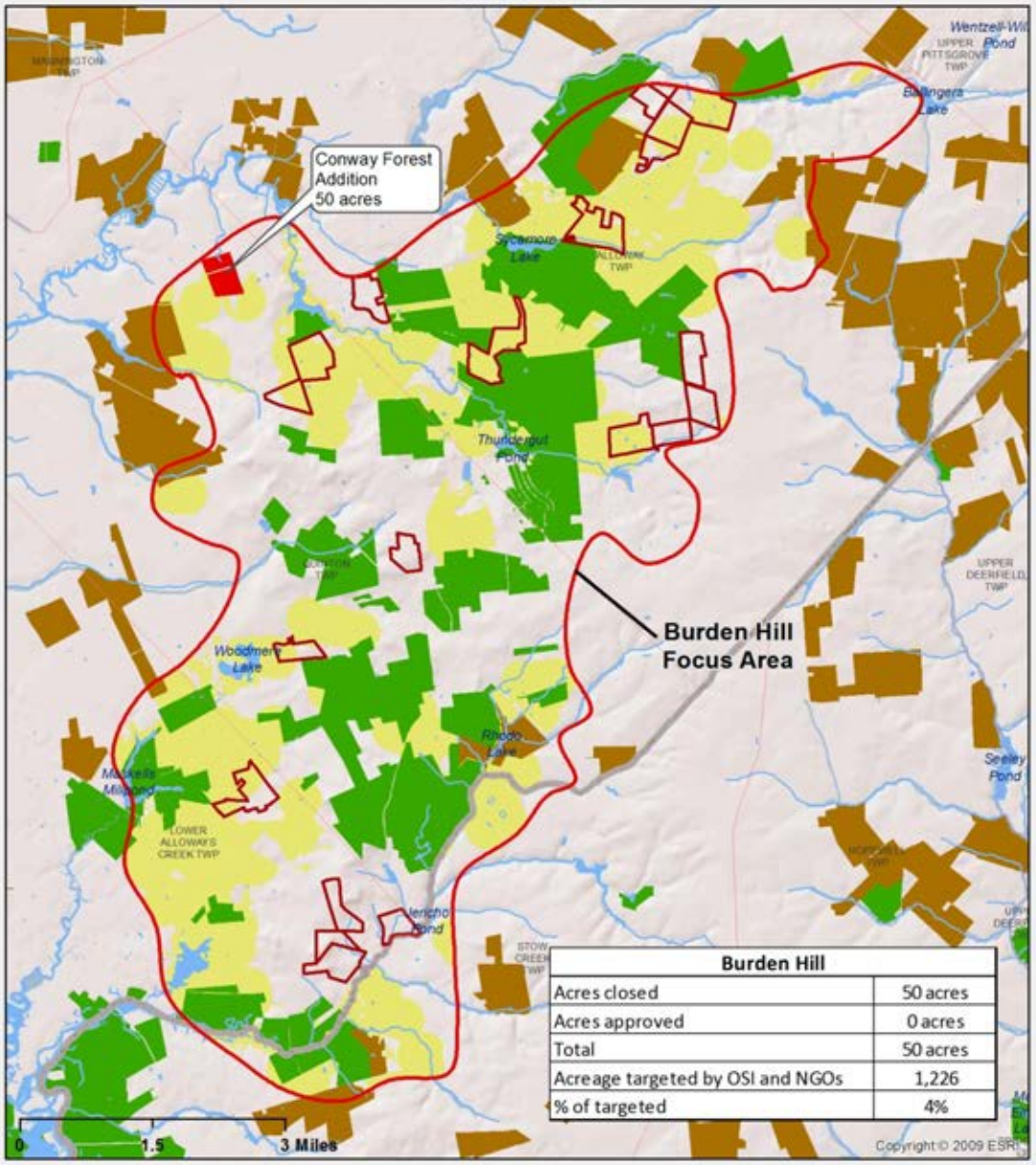
Approved and Completed Projects - February 2013

Cohansey River

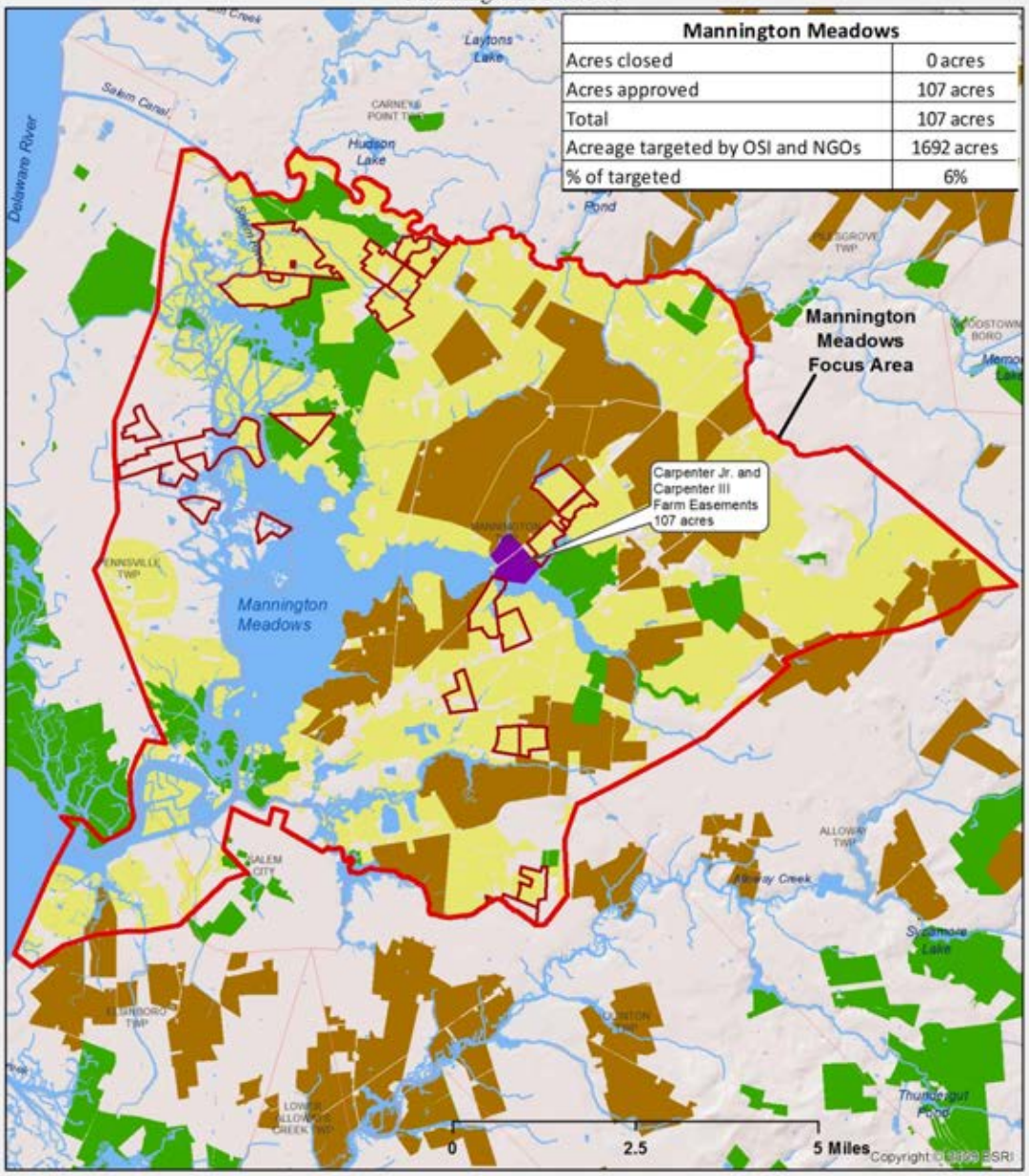



Bayshore Project Area
Cohansey River
Delaware Bay
Barrett's Run
Sheppard's Mill
Adamucci 1
Watson Farm
Blew Farm
Roork Farm
Adamucci
Cohansey River
HOPEWELL TOWNSHIP
SHILOH BOROUGH
UPPER DEERFIELD TOWNSHIP
DEERFIELD TOWNSHIP
BRIDGETON
FAIRFIELD TOWNSHIP
GREENWICH TOWNSHIP
Foster Run
Shaw Branch
Cornwell Run
Lebanon Branch
Indian Fields Branch
Mill Creek
Rock Creek
49
56
77
Legend
Cohansey Focus Area
Protected Land
Preserved Farmland
Closed Projects
Approved Projects
Round 3 Projects
Bayshore_Priority_Area

Approved and Completed Projects - February 2013
Burden Hill



Approved and Completed Projects - January 2013
Mannington Meadows



NJ Bayshore- Positive Outcomes

- Arranged cooperative meetings among Land Trusts, State and County funders coordinating acquisition planning.
- Helped align ngos targets with the Fund's acquisition priorities
- Encouraged Cumberland and Salem County to prioritize funding for particular initiatives
- Encouraged Cumberland County for the first time to fund Open Space and apply for Green Acres funds
- Encouraged municipalities in Cohansey River Focus Area to apply for Green Acres funds for first time and to increase funding for farmland

PA Highlands

Mapping and Project Prioritization

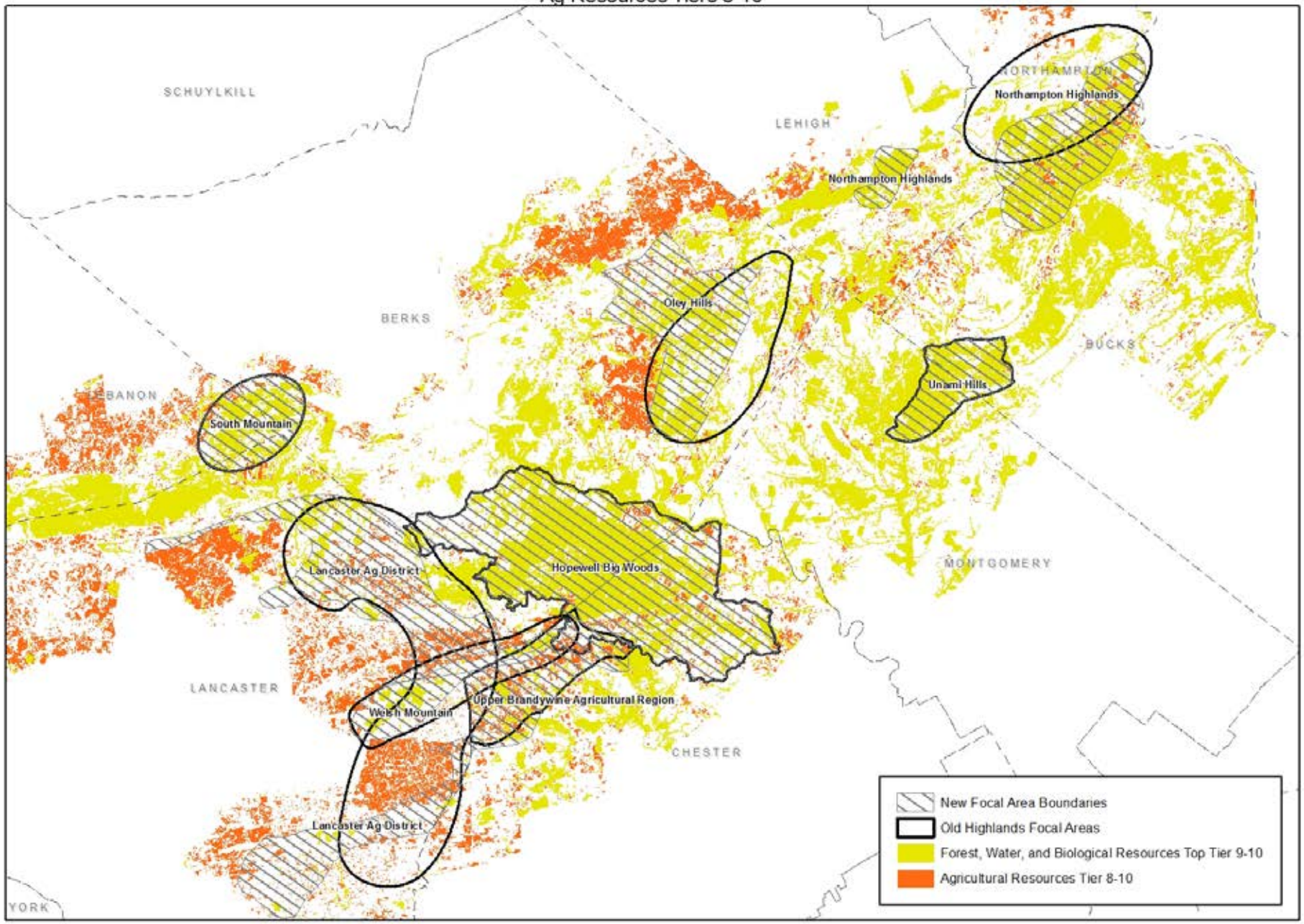
In the PA Highlands we used the following data and criteria:

- GIS data from Highlands Regional Study: Connecticut and Pennsylvania 2010 Update. Used GIS layers or Forest, Water ,Agricultural resources and ½ mile proximity to existing preserved land to create a priority area overlay.
- Minimum project size of 30 acres
- For farms, soil quality and adjacency to streams.
- Compared this overlay to the existing project pipelines land trusts to see degree of overlap

Pennsylvania 2010 Highlands Resource Priority Assessment -

Forest, Water and Biological Resources Tiers 9-10

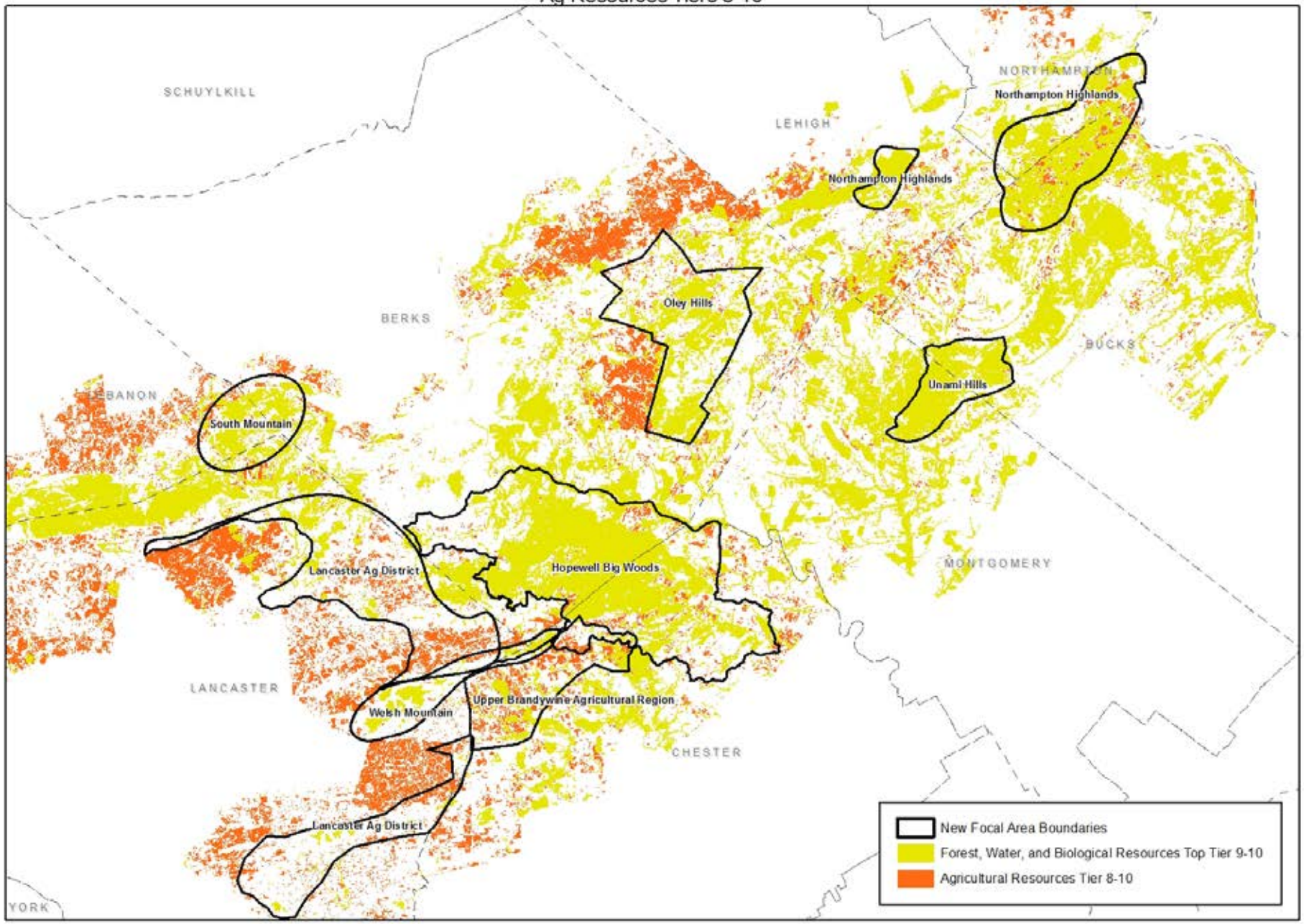
Ag Resources Tiers 8-10



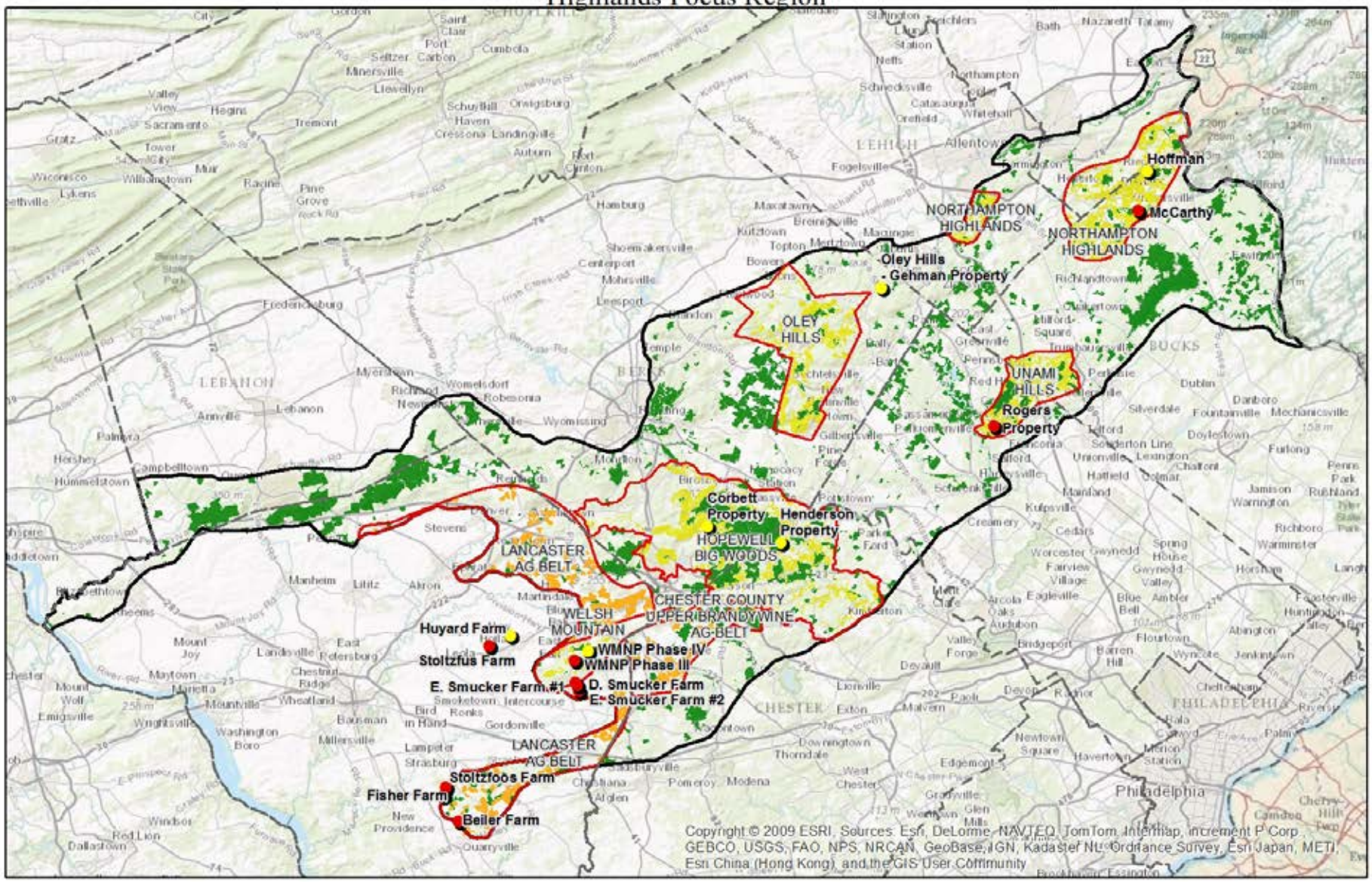
Pennsylvania 2010 Highlands Resource Priority Assessment -

Forest, Water and Biological Resources Tiers 9-10

Ag Resources Tiers 8-10



Approved and Completed Projects - December 2012
Highlands Focus Region



Approved Projects
Closed Projects
Protected Lands
Priority Resource Area
Priority Ag Resource Area

0 10 20
Miles

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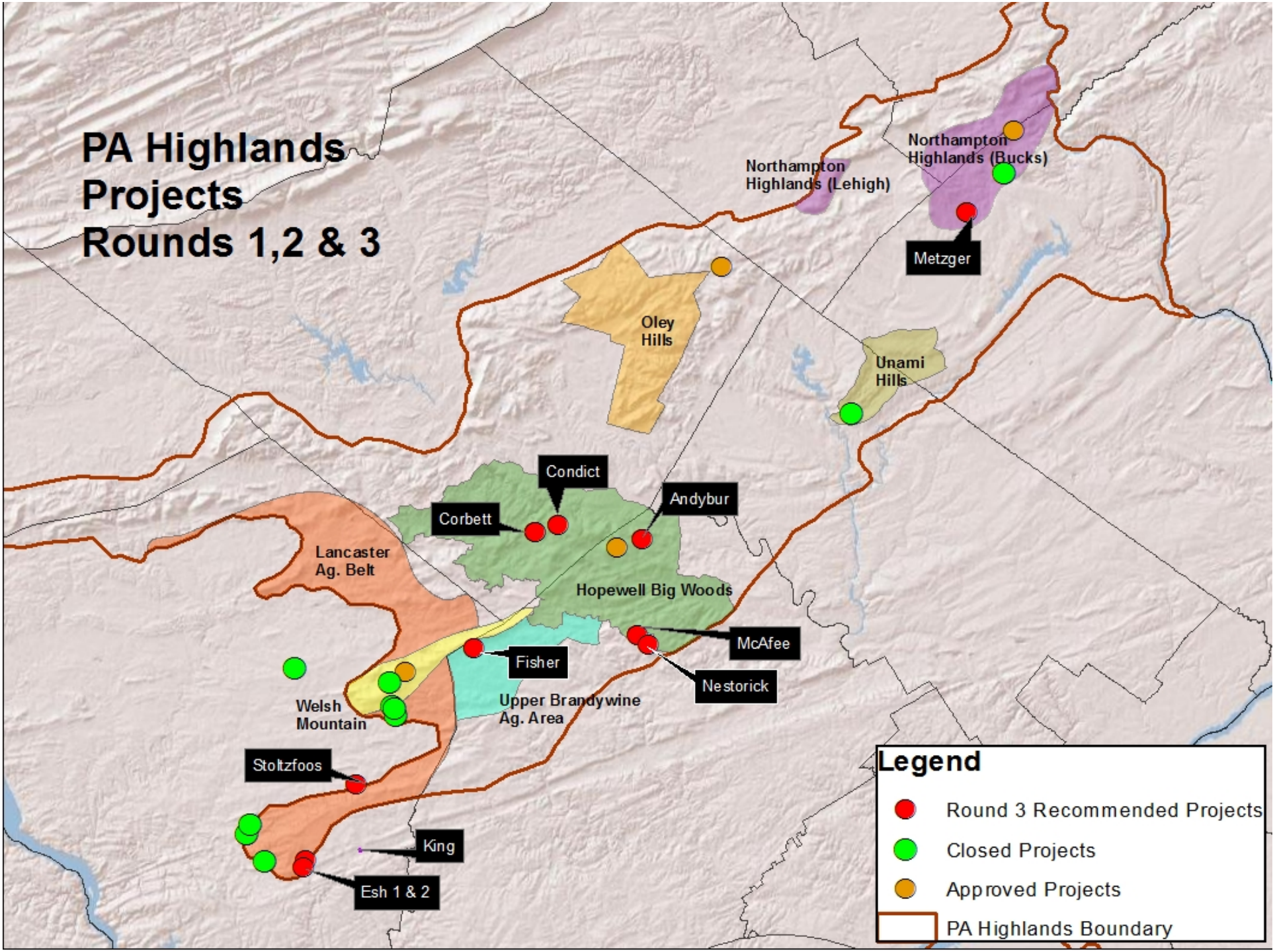
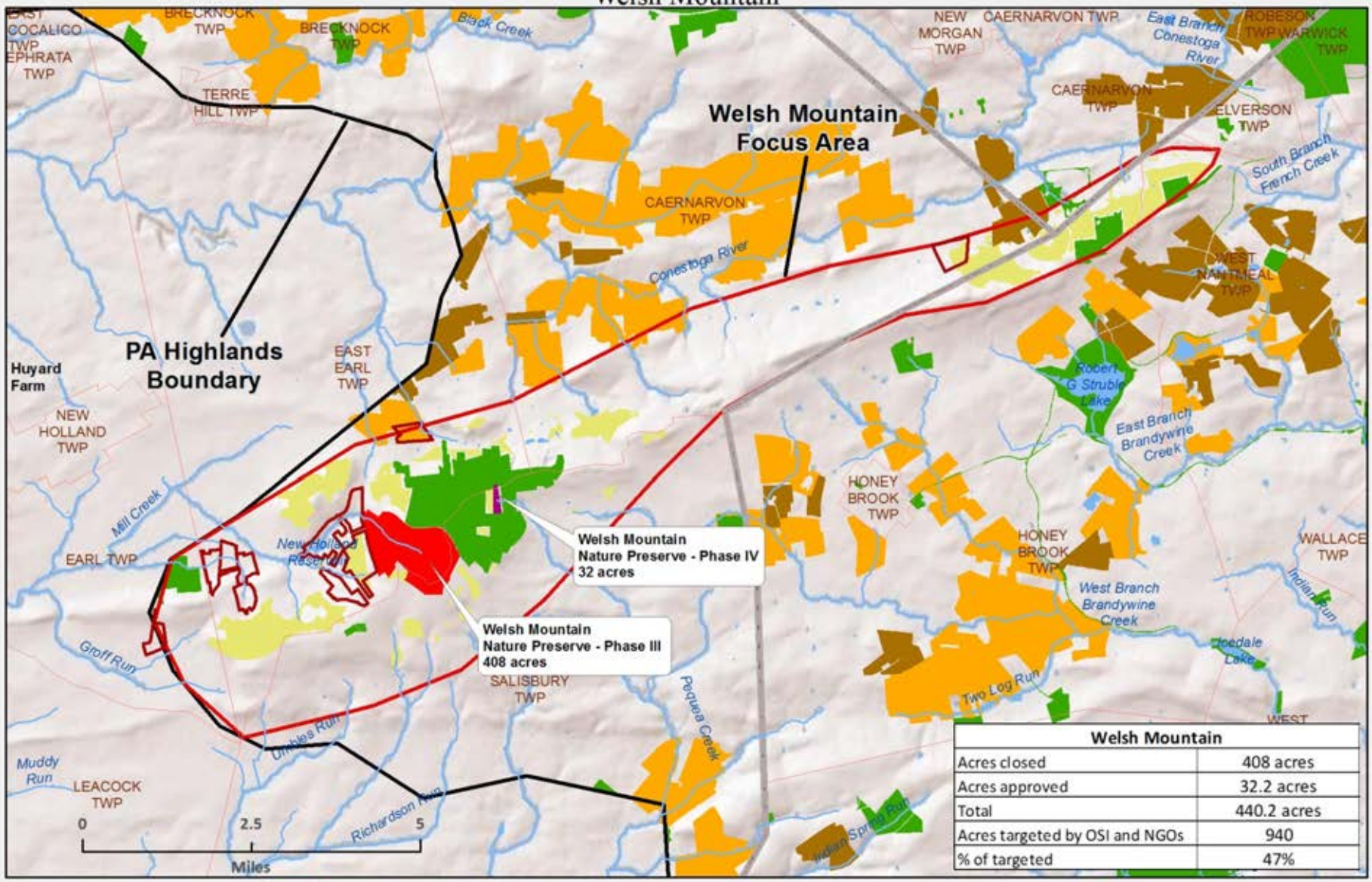

PA Highlands
Projects
Rounds 1,2 & 3
Northampton
Highlands (Lehigh)
Northampton
Highlands (Bucks)
Metzger
Oley
Hills
Unami
Hills
Condict
Corbett
Andybur
Lancaster
Ag. Belt
Hopewell Big Woods
McAfee
Fisher
Nestorick
Welsh
Mountain
Upper Brandywine
Ag. Area
Stoltzfoos
King
Esh 1 & 2
Legend
Round 3 Recommended Projects
Closed Projects
Approved Projects
PA Highlands Boundary

Approved and Completed Projects - February 2013
Welsh Mountain



Welsh Mountain	
Acres closed	408 acres
Acres approved	32.2 acres
Total	440.2 acres
Acres targeted by OSI and NGOs	940
% of targeted	47%

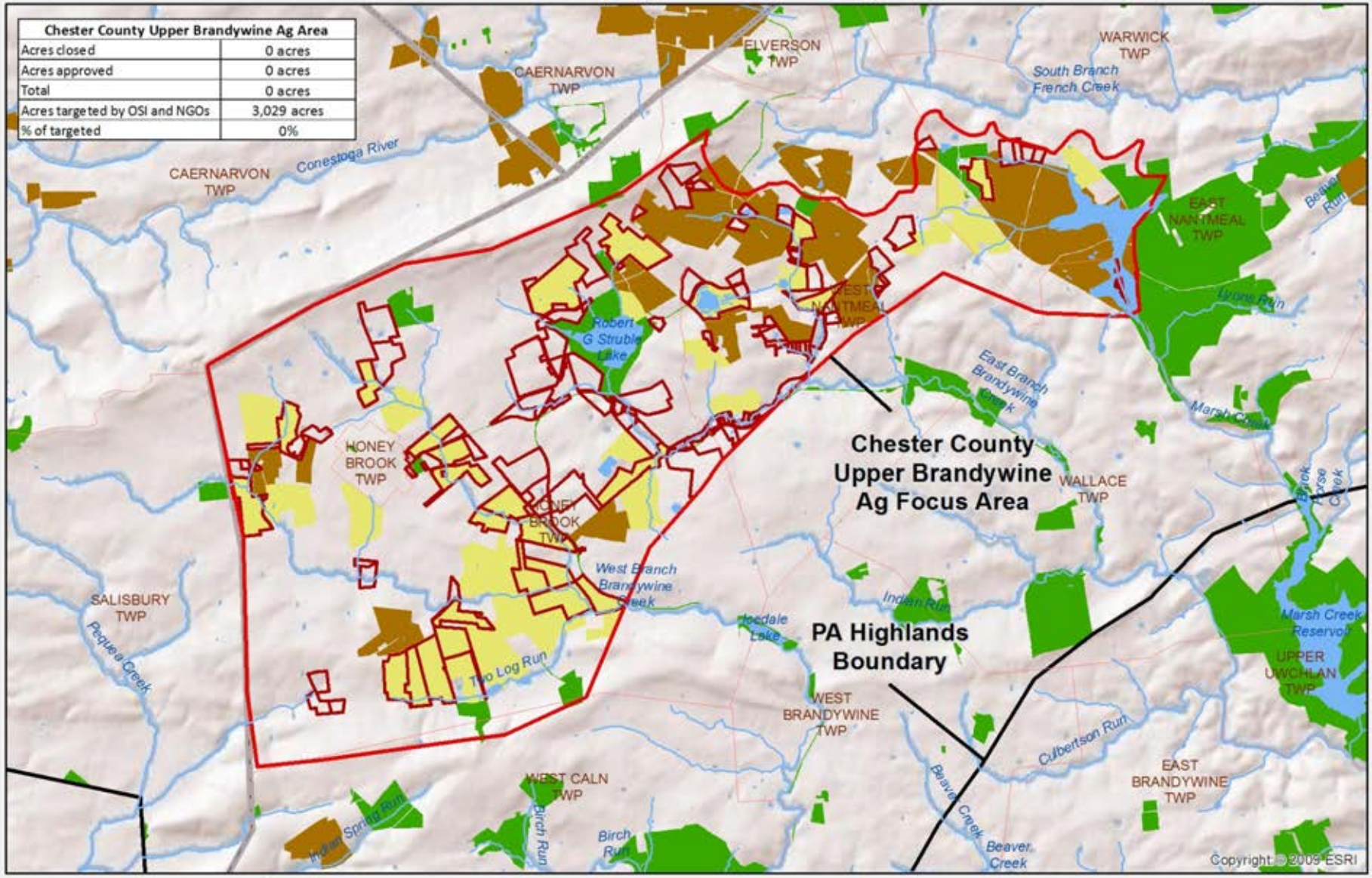
Open Space Institute Projects
- Approved
- Disbursed

- Highland Focal Areas
- Pipeline Projects
- Preserved Open Space
- Preserved Farmland
- Priority Resource Area

Open Space Institute

Approved and Completed Projects - February 2013
Chester County Upper Brandywine Ag Area

Chester County Upper Brandywine Ag Area	
Acres closed	0 acres
Acres approved	0 acres
Total	0 acres
Acres targeted by OSI and NGOs	3,029 acres
% of targeted	0%



Open Space Institute Projects
- Approved
- Disbursed

- Highland Focal Areas
- Pipeline Projects
- Preserved Open Space
- Preserved Farmland
- Priority Resource Area

0 2 4
Miles

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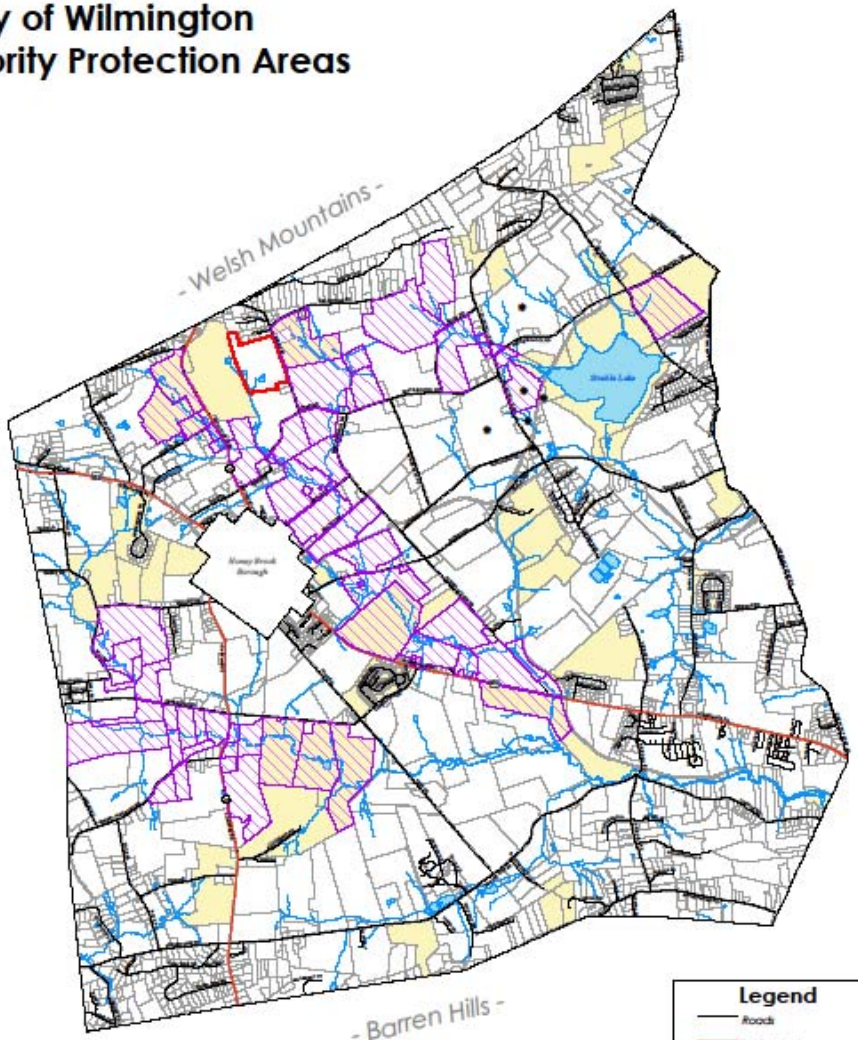
City of Wilmington
Priority Protection Areas



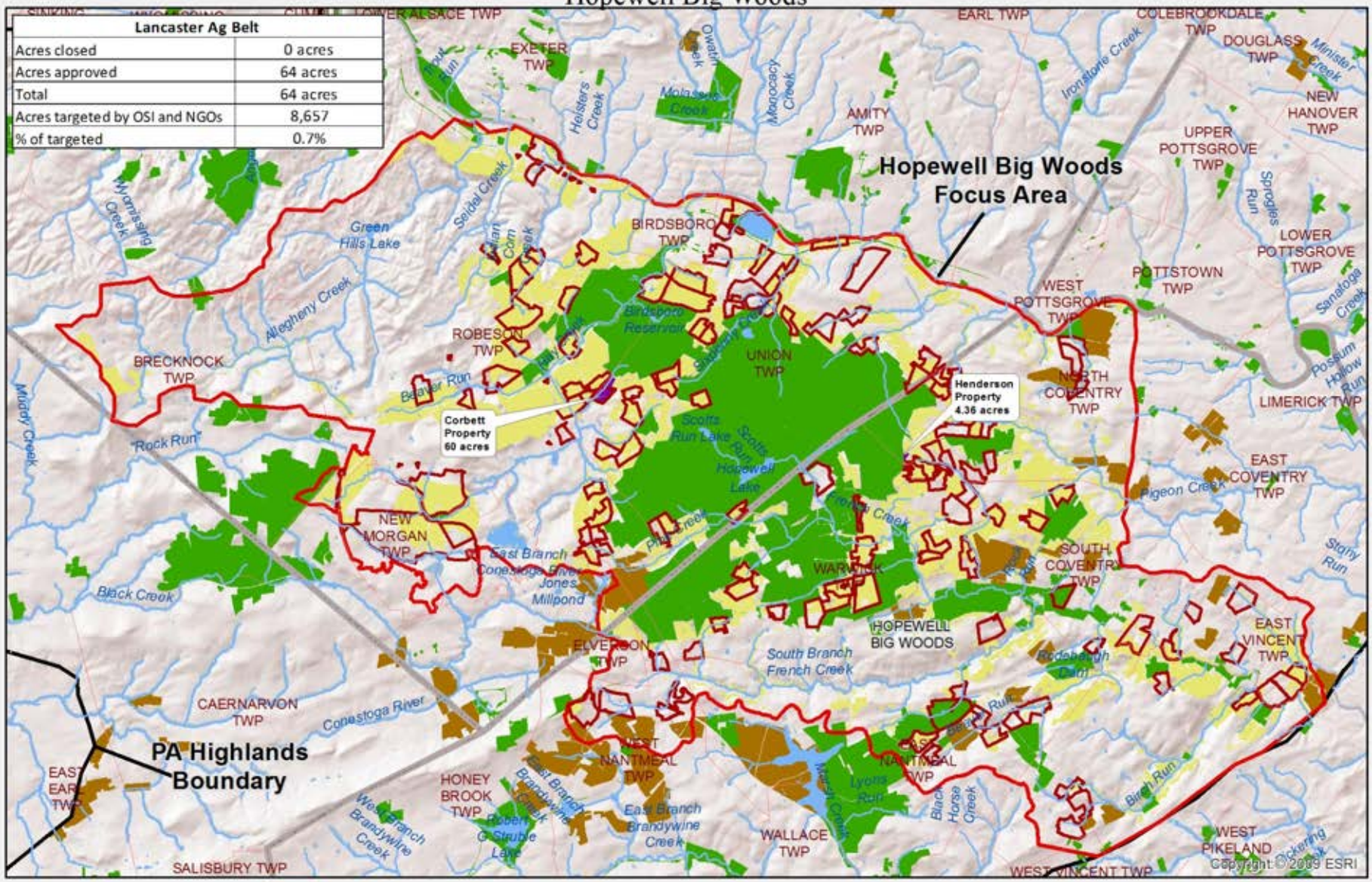
Legend

- Roads
- Major roads
- Streams
- Tax parcels
- Township boundary
- Water bodies
- Protected lands
- City of Wilmington Priority Protection Areas
- Fisher property

*Note- Settlement agreement prevents development of these parcels.

Approved and Completed Projects - February 2013
Hopewell Big Woods

Lancaster Ag Belt	
Acres closed	0 acres
Acres approved	64 acres
Total	64 acres
Acres targeted by OSI and NGOs	8,657
% of targeted	0.7%

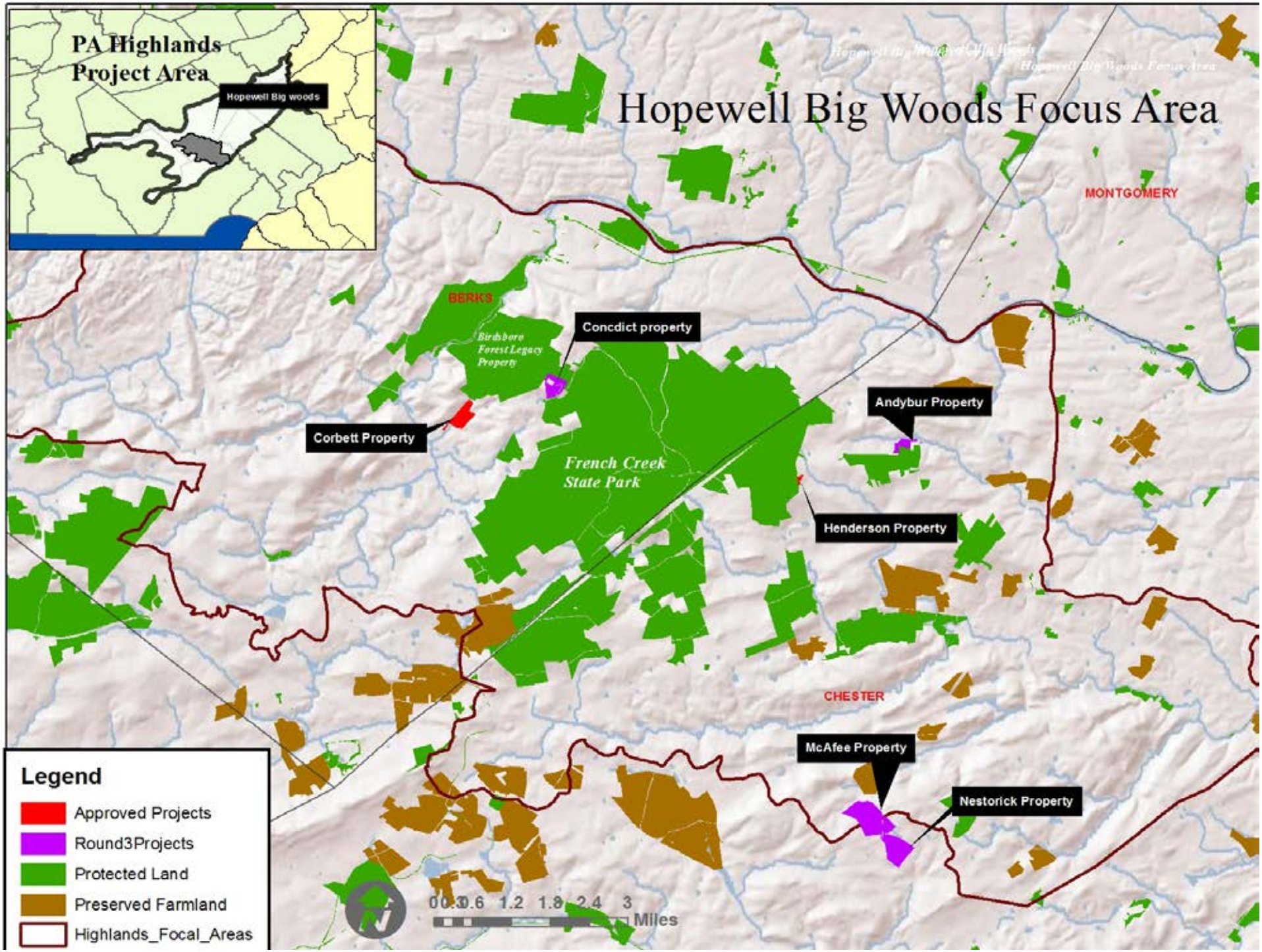


Open Space Institute Projects
- Approved
- Disbursed

- Highland Focal Areas
- Pipeline Projects
- Preserved Open Space
- Preserved Farmland
- Priority Resource Area

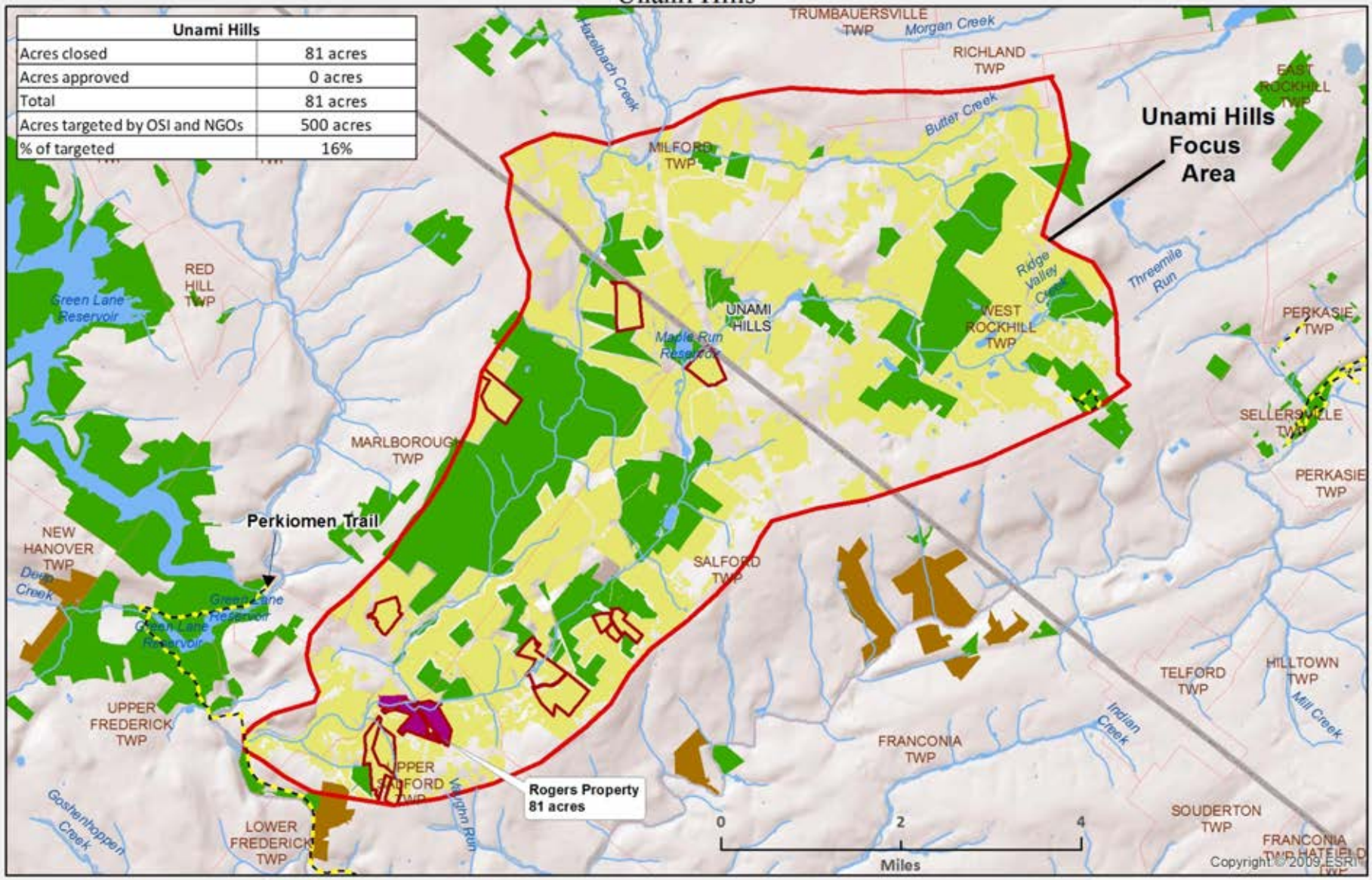
0 3 6
Miles

Open Space Institute


PA Highlands
Project Area
Hopewell Big woods
Hopewell Big Woods Focus Area
MONTGOMERY
BERKS
Birdsboro
Forest Legacy
Property
Concdict property
Corbett Property
French Creek
State Park
Andybur Property
Henderson Property
CHESTER
McAfee Property
Nestorick Property
Legend
Approved Projects
Round3Projects
Protected Land
Preserved Farmland
Highlands_Focal_Areas
0 0.3 0.6 1.2 1.8 2.4 3
Miles

Approved and Completed Projects - February 2013
Unami Hills

Unami Hills	
Acres closed	81 acres
Acres approved	0 acres
Total	81 acres
Acres targeted by OSI and NGOs	500 acres
% of targeted	16%

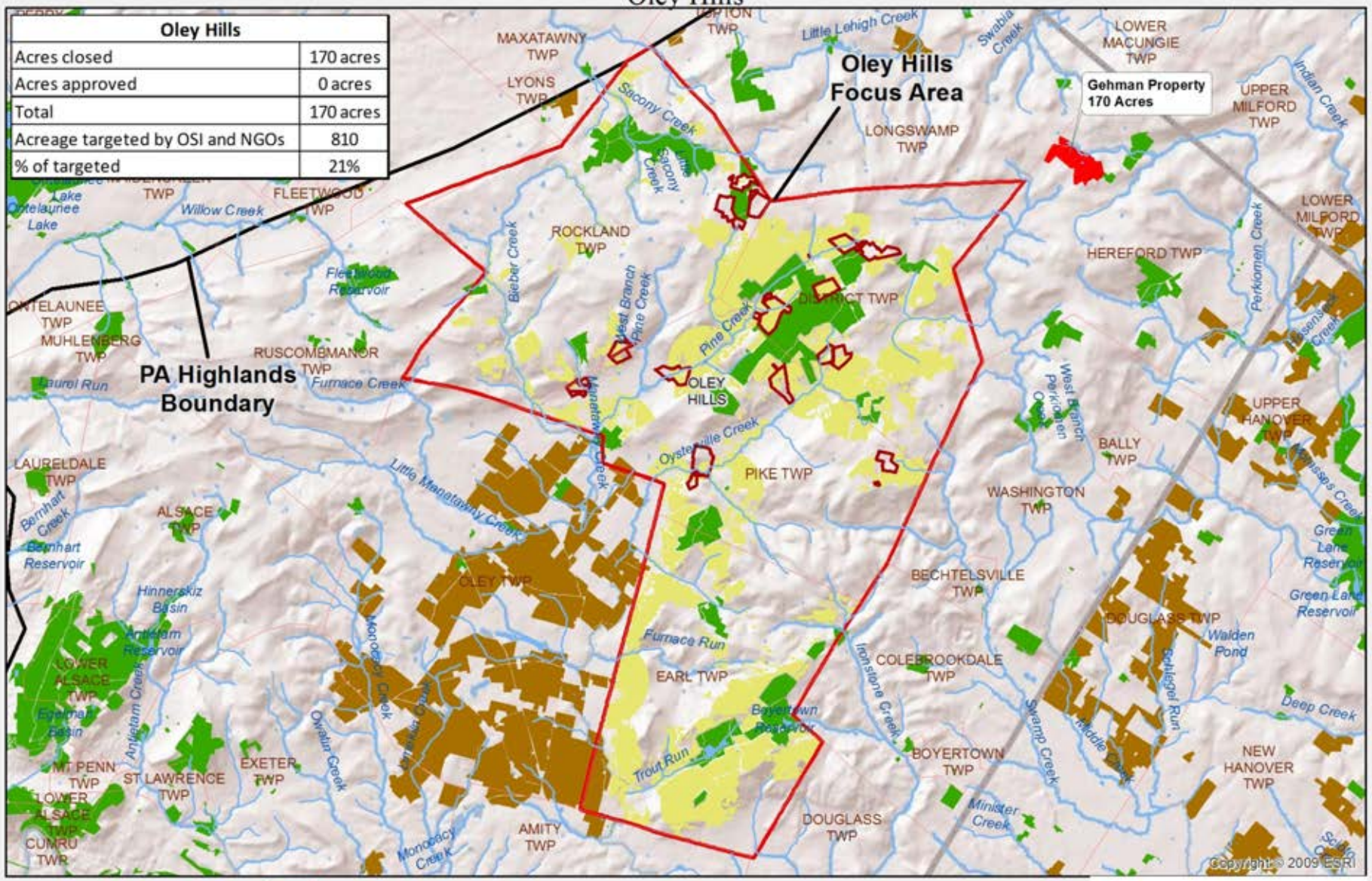


Open Space Institute Projects
- Approved
- Disbursed

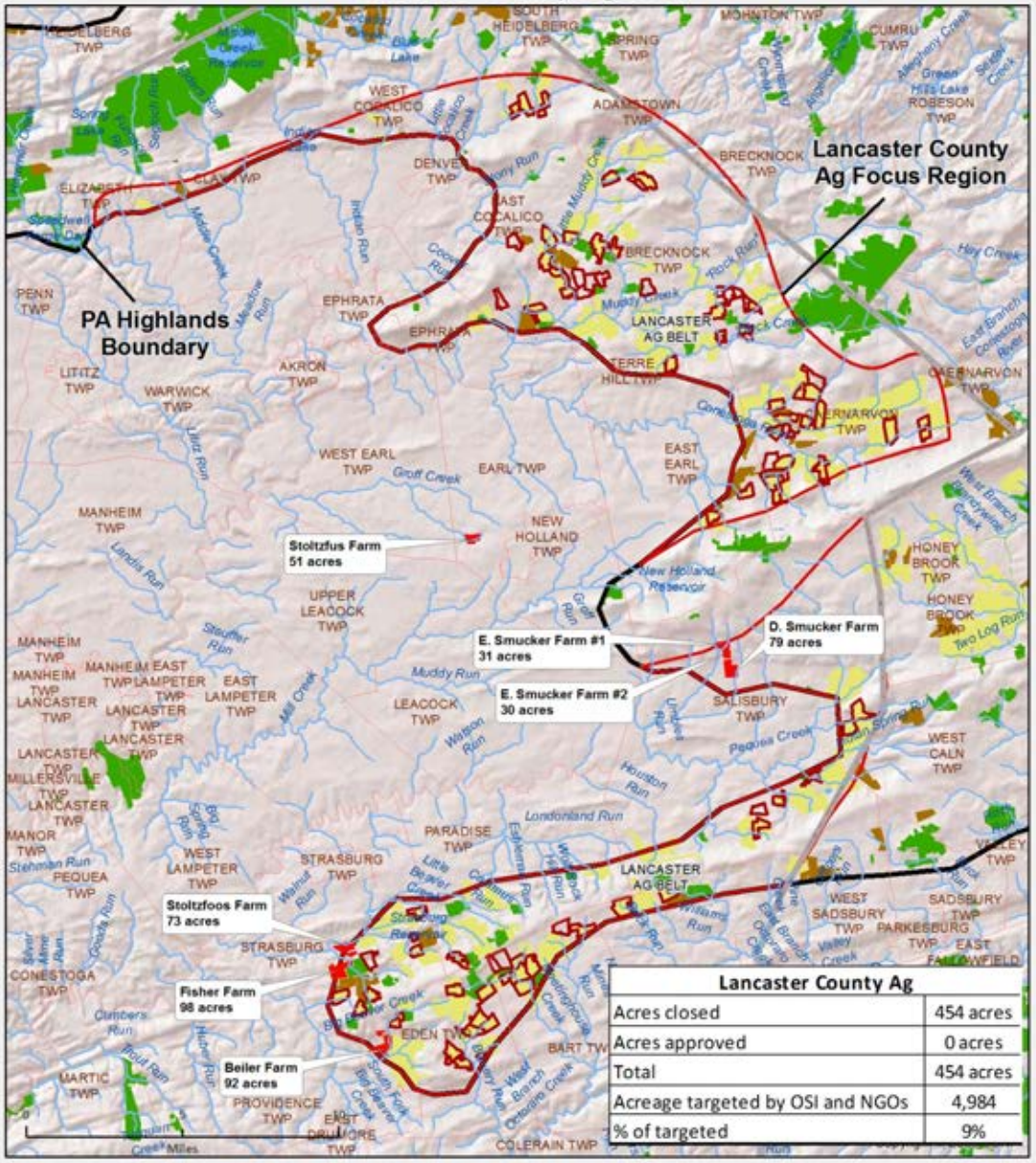
- Highland Focal Areas
- Pipeline Projects
- Preserved Open Space
- Preserved Farmland
- Priority Resource Area

Open Space Institute

Approved and Completed Projects - February 2013
Oley Hills



Approved and Completed Projects - February 2013
Lancaster County Ag Area

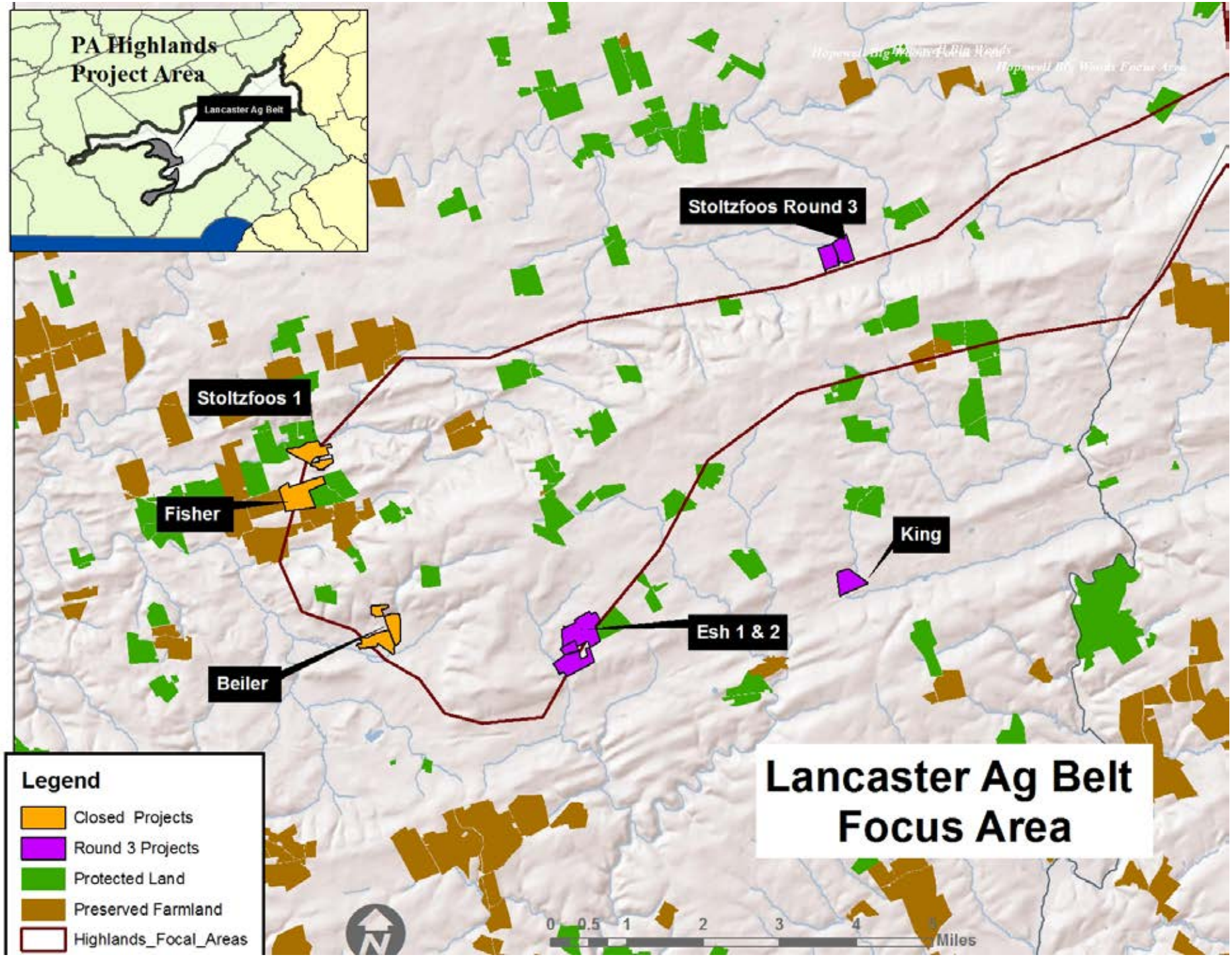


Lancaster County Ag	
Acres closed	454 acres
Acres approved	0 acres
Total	454 acres
Acreage targeted by OSI and NGOs	4,984
% of targeted	9%

Open Space Institute Projects
- Approved
- Disbursed

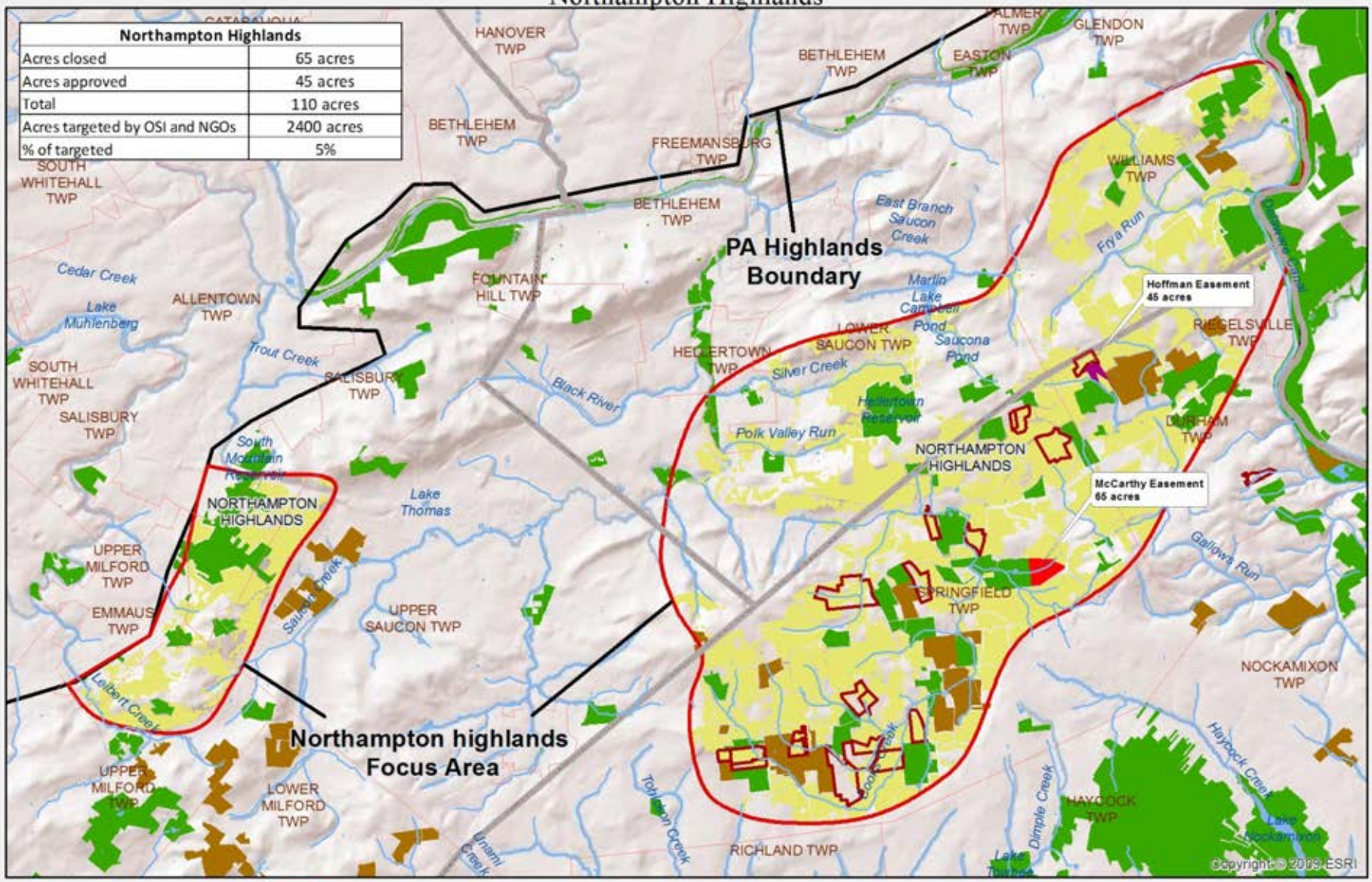
- Bayshore Focal Areas
- Pipeline Projects
- Preserved Open Space
- Preserved Farmland
- Priority Resource Area

Open Space Institute


PA Highlands
Project Area
Lancaster Ag Belt
Stoltzfoos Round 3
Stoltzfoos 1
Fisher
King
Esh 1 & 2
Beiler
Legend
Closed Projects
Round 3 Projects
Protected Land
Preserved Farmland
Highlands_Focal_Areas
0 0.5 1 2 3 4 Miles
Lancaster Ag Belt
Focus Area

Approved and Completed Projects - February 2013
Northampton Highlands

Northampton Highlands	
Acres closed	65 acres
Acres approved	45 acres
Total	110 acres
Acres targeted by OSI and NGOs	2400 acres
% of targeted	5%



Open Space Institute Projects
- Approved
- Disbursed

- Highland Focal Areas
- Pipeline Projects
- Preserved Open Space
- Preserved Farmland
- Priority Resource Area

0 2.5 5
Miles

Open Space Institute

PA Highlands – Positive Outcomes

Prioritization of Resources :

Worked with land trusts to target work in our geographic priority areas
Used ngo's data on resources and pipelines to help identify targets.

Worked with the Appalachian Mountain Club to map trails

Capacity Building for Fundraising:

By being conservative with funds, encouraged Montgomery Lands Trust to raise $50,000 toward the closing of the Rogers project.

Encouraged governments to provide matching funds:

Forged good relationships with PA DCNR , county and local funders and representatives.

PA Highlands – Positive Outcomes

Leveraging of Fund Resources Through Loans

Lancaster farmland Trust (LFT) -
Fund made a partly forgivable loan instead of a grant. Required LFT to raise half of the purchase price of easements privately. LFT accessed Pew funding to gain extra 20% leverage . Result was extra leverage for the Fund and provided an option for us to control spending for the huge number of project applications by LFT.

Natural Lands Trust (NLT) -
Made a $1.1 million loan to the NLT for acquisition of a 171-acre bog turtle site in the PA Highlands that ranked highly for resource protection but not in a Fund Focus area. Property was preserved, loan was repaid within 2 months.

Bayshore-Highlands Fund's Impact in Focus Areas

As expected, success in specific focus areas was highly influenced by land trust capacity, funding and timing of funding availability .

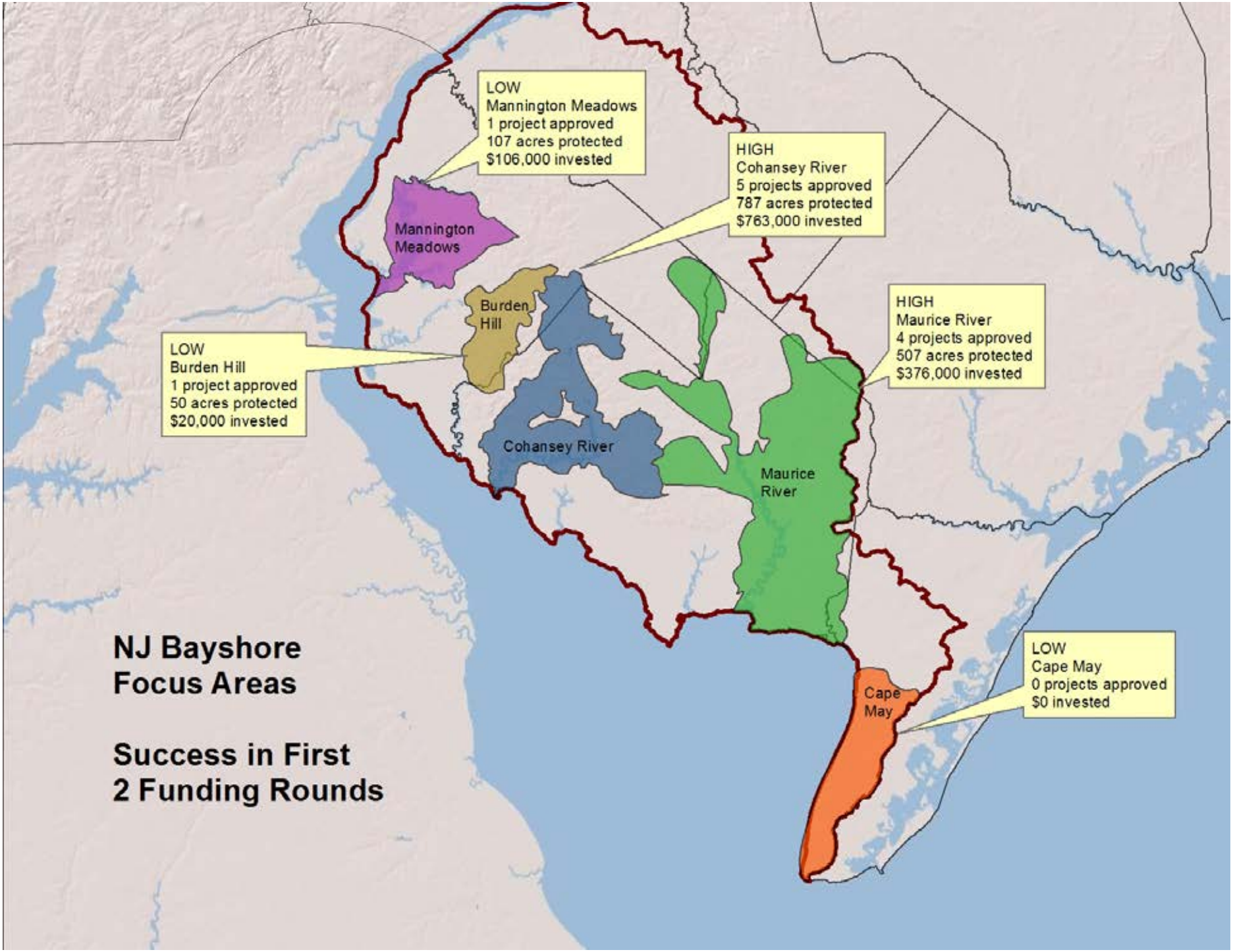
Pattern of impact fell into several categories:

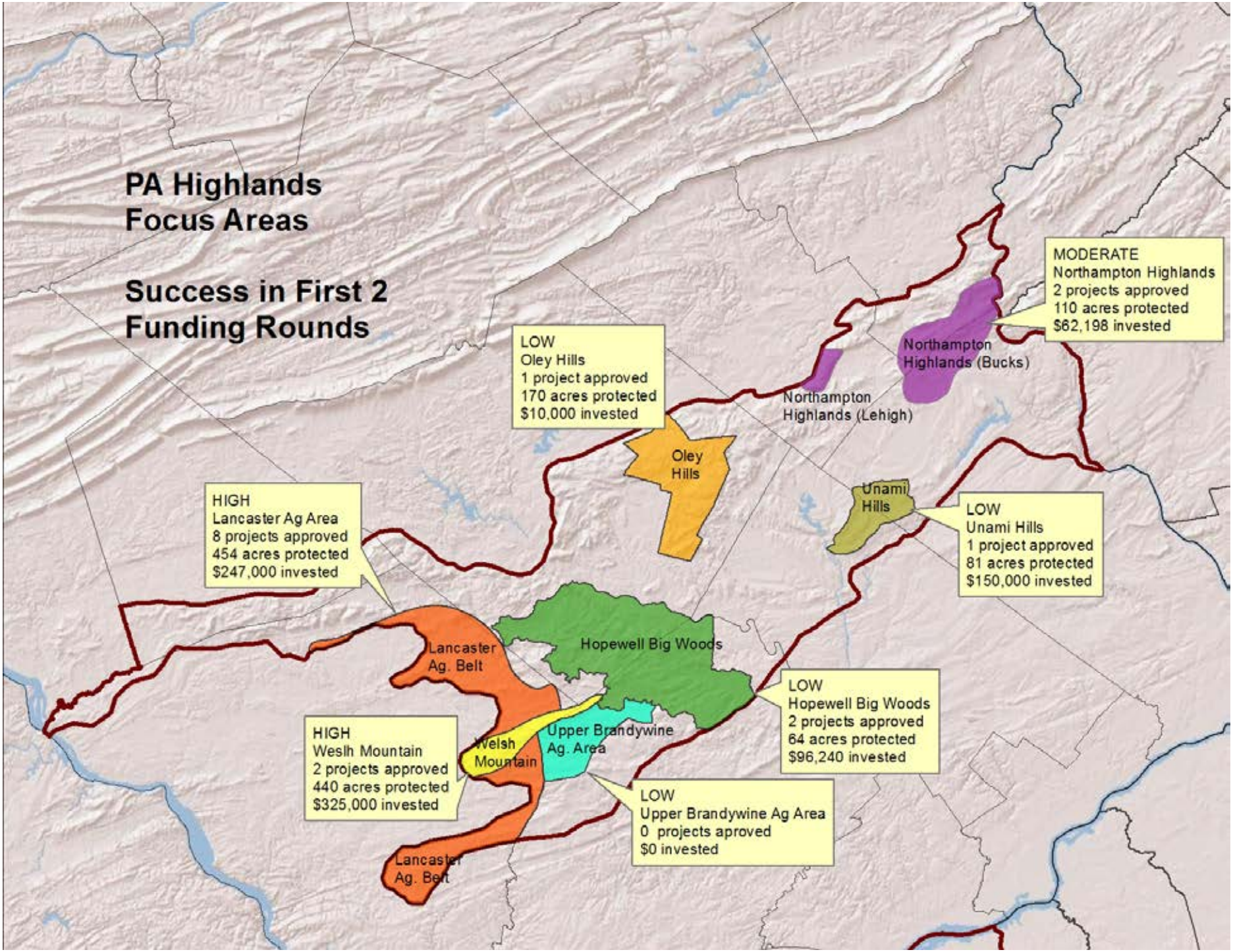
- Low Capacity /Low Funding - (example Oley Hills)
- High Capacity / Adequate Funding - (example Cohansey River)
- High Capacity / Poor Timing – (examples Mannington, Hopewell Big Woods)

Bayshore-Highlands Fund – Future Projections

Success will require:

- Investing more in a few focus areas where capacity , resources and availability of funding coincide
- Limiting investment in low performing focus areas, which cannot get to significant scale of land protection.
- Capitalizing on high capacity places where funds were not available in Rounds 1 and 2, but have unique potential to achieve success and significant scale in the future


LOW
Mannington Meadows
1 project approved
107 acres protected
$106,000 invested
HIGH
Cohansey River
5 projects approved
787 acres protected
$763,000 invested
HIGH
Maurice River
4 projects approved
507 acres protected
$376,000 invested
LOW
Burden Hill
1 project approved
50 acres protected
$20,000 invested
LOW
Cape May
0 projects approved
$0 invested
Mannington Meadows
Burden Hill
Cohansey River
Maurice River
Cape May
NJ Bayshore
Focus Areas
Success in First
2 Funding Rounds

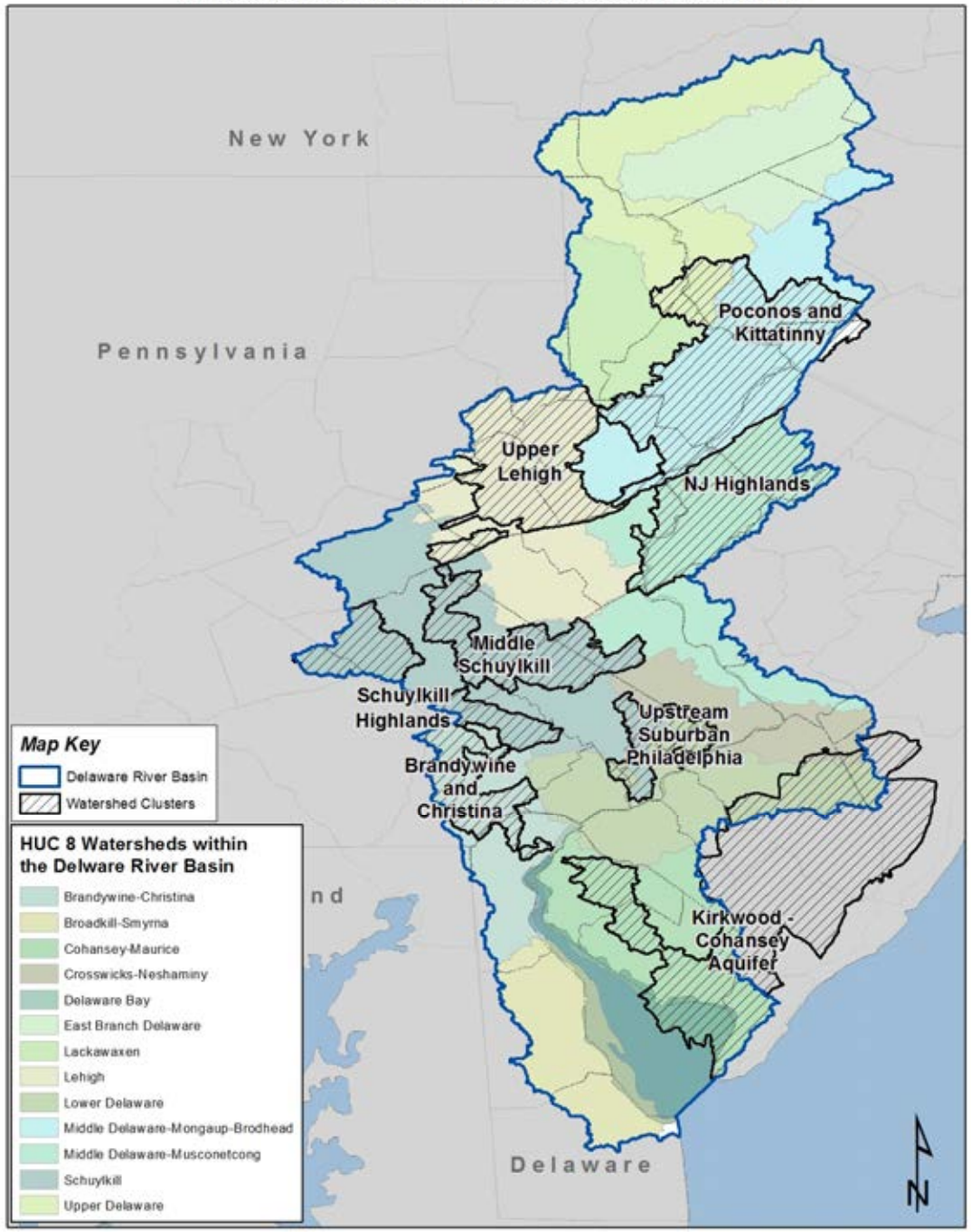

PA Highlands
Focus Areas
Success in First 2
Funding Rounds
MODERATE
Northampton Highlands
2 projects approved
110 acres protected
$62,198 invested
Northampton
Highlands (Bucks)
Northampton
Highlands (Lehigh)
LOW
Oley Hills
1 project approved
170 acres protected
$10,000 invested
Oley
Hills
Unami
Hills
LOW
Unami Hills
1 project approved
81 acres protected
$150,000 invested
HIGH
Lancaster Ag Area
8 projects approved
454 acres protected
$247,000 invested
Lancaster
Ag. Belt
Hopewell Big Woods
LOW
Hopewell Big Woods
2 projects approved
64 acres protected
$96,240 invested
HIGH
Weslh Mountain
2 projects approved
440 acres protected
$325,000 invested
Welsh
Mountain
Upper Brandywine
Ag. Area
LOW
Upper Brandywine Ag Area
0 projects aproved
$0 invested
Lancaster
Ag. Belt

Open Space Institute

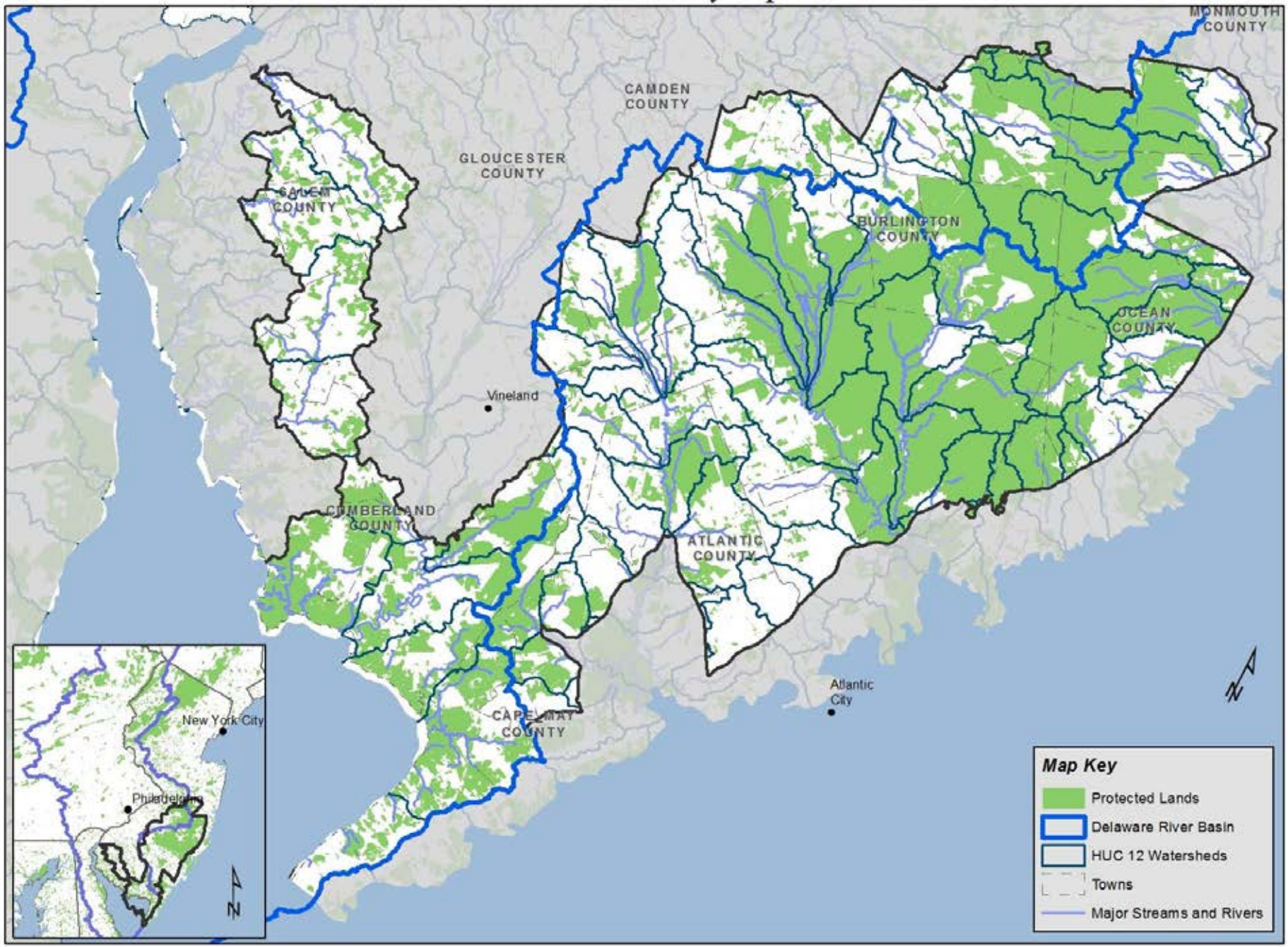
William Penn Foundation

Delaware Basin Watershed Program

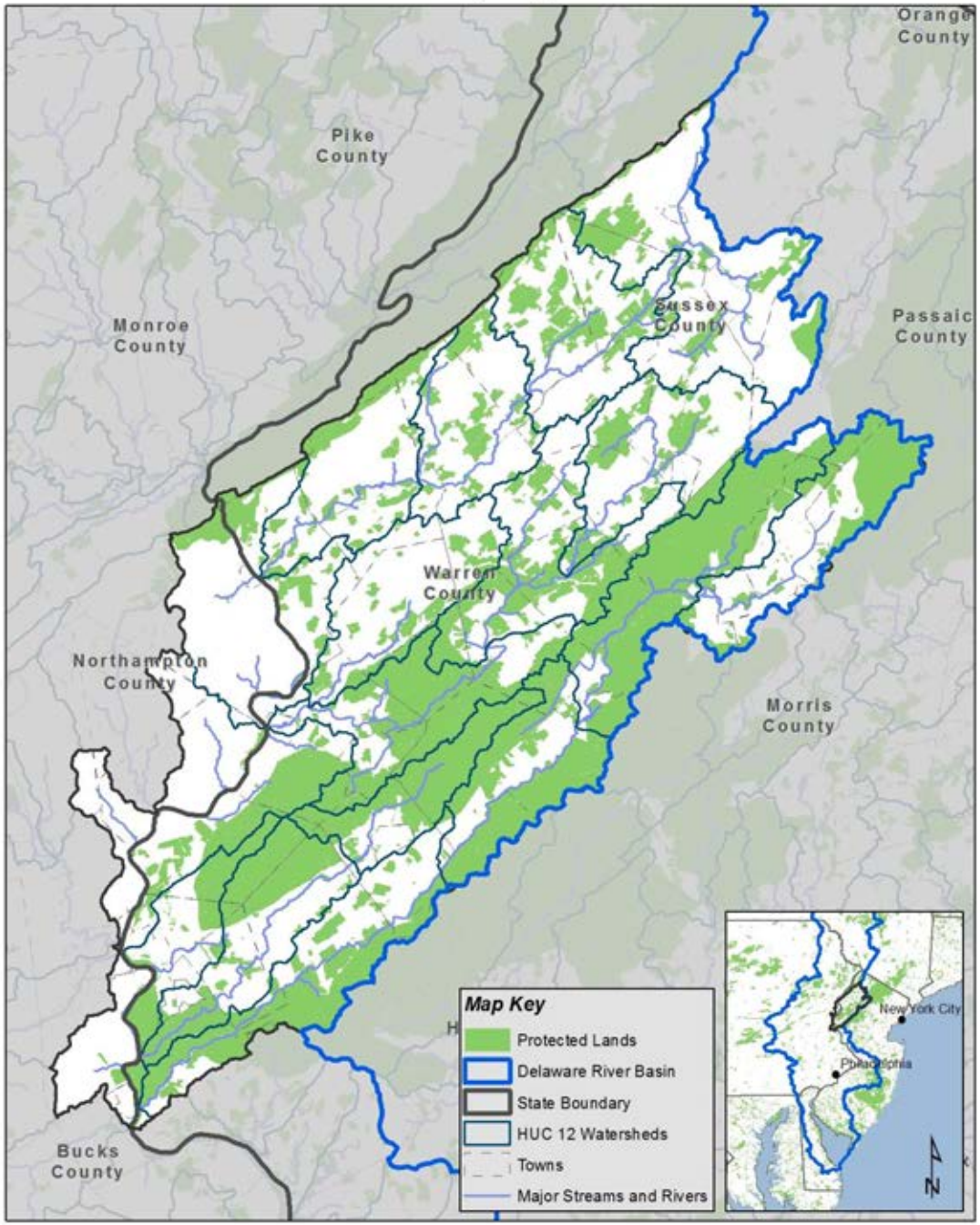
Watershed Clusters in the Delaware River Basin



Kirkwood-Cohansey Aquifer



New Jersey Highlands



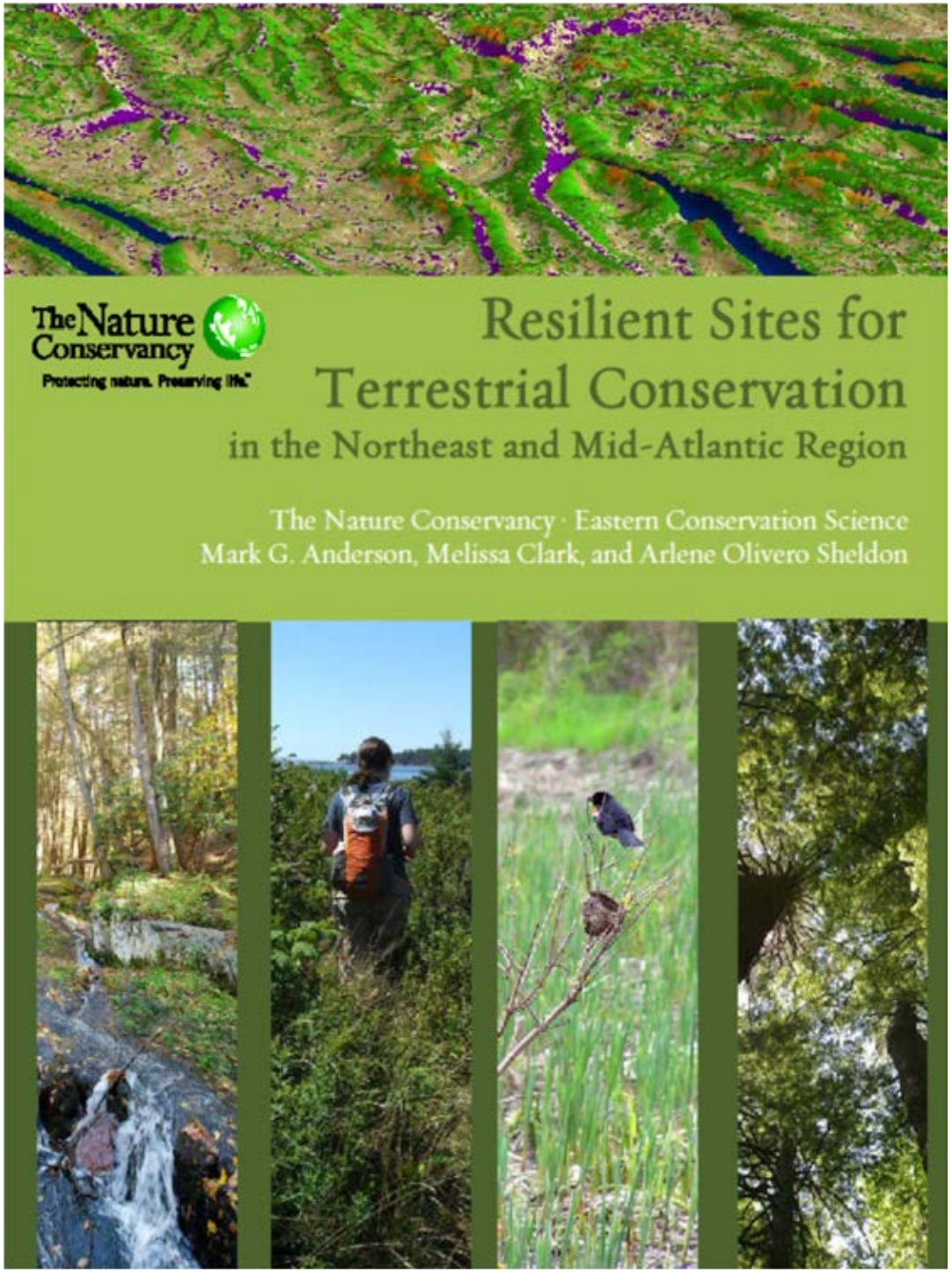
Open Space Institute

Doris Duke Charitable Foundation

Climate Resiliency Grant Program

Open Space Institute

- What role do land trusts have in responding to climate change?
- How does climate change impact conservation priorities?
- Will land we protect today be important tomorrow?



Download the full report and data at www.conserveonline.org

Key Messages

1. New resiliency science suggests a key role for land trusts in responding to climate change
2. New Jersey is critical for protecting resilient sites
3. Targeted support is available for conservation projects and

What is a resilient landscape?

A resilient landscape maintains ecological function and is likely to sustain a diversity of species even as species composition and ecological processes change.

Highly Vulnerable

- Limited capacity to adapt
- Disrupted function, low diversity
- Few options and alternatives

Highly Resilient

- Large capacity to adapt
- Sustain function and diversity
- Many options and alternatives

Adapted from M. Anderson

How do we maintain ecological function?

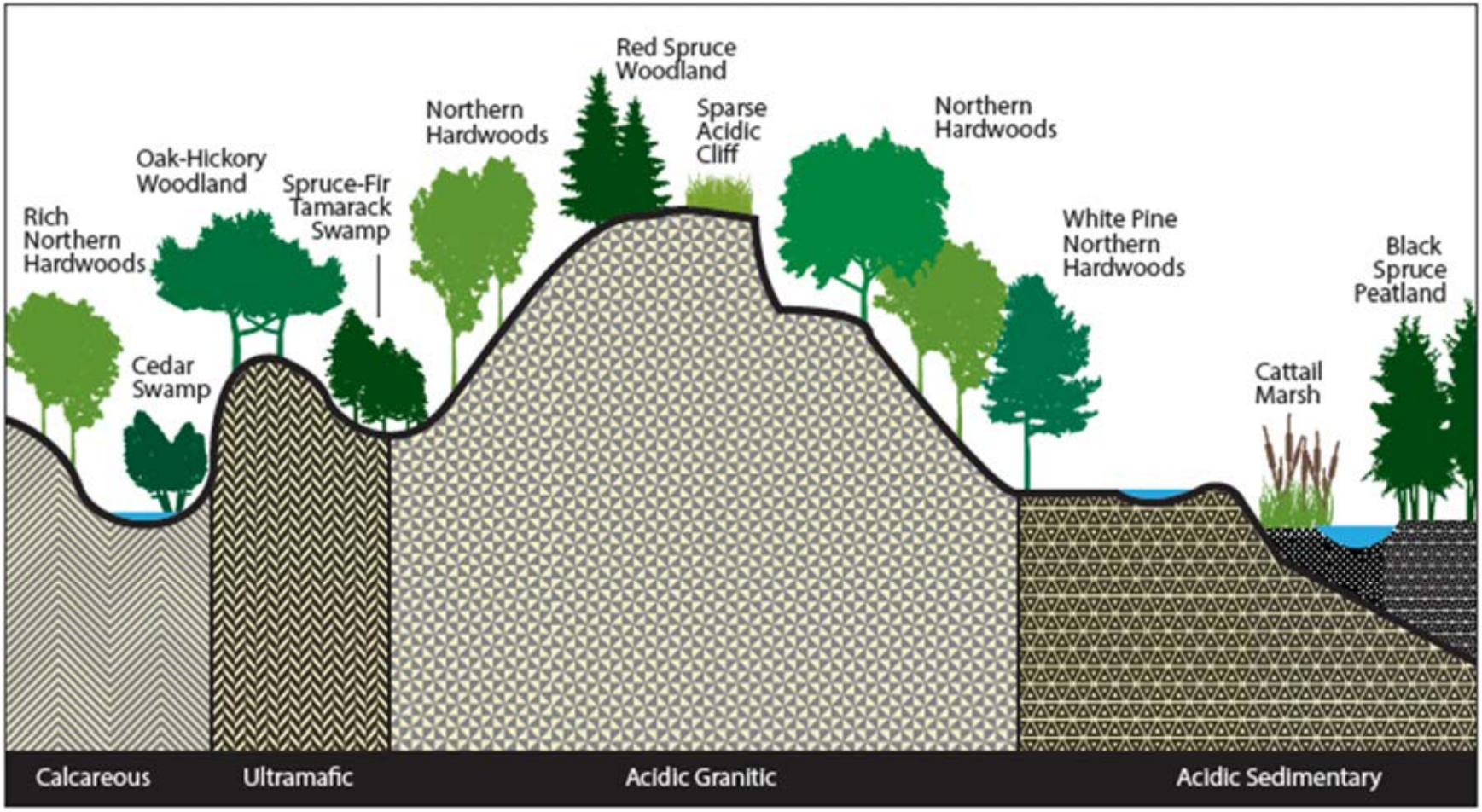
1. Landscape Complexity **– Availability of micro-climates based on degree of elevation gradients, topography and moisture (wetlands).**

Plus

2. Landscape Connectedness (Permeability) **– Connection to similar natural lands.**

3. Across a diversity of geology types

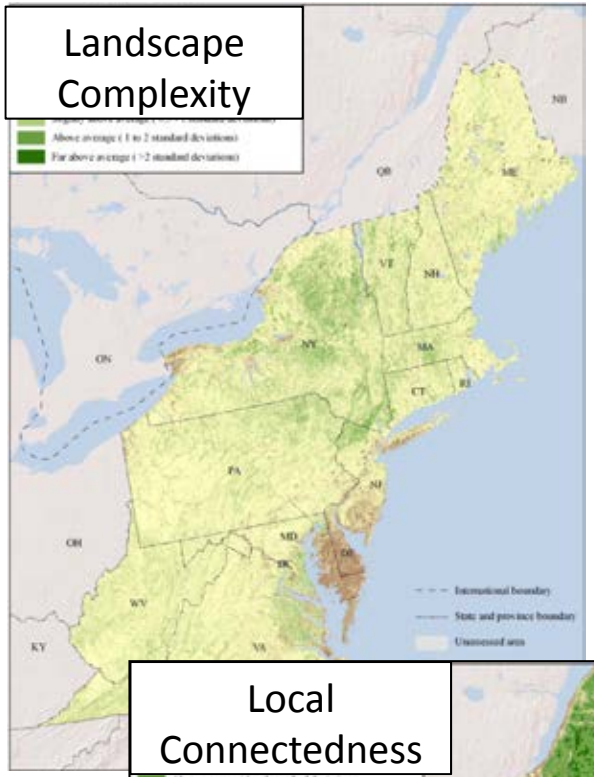
Adapted from M. Anderson



Physical diversity equals biological diversity

Adapted from M. Anderson

Landscape Complexity



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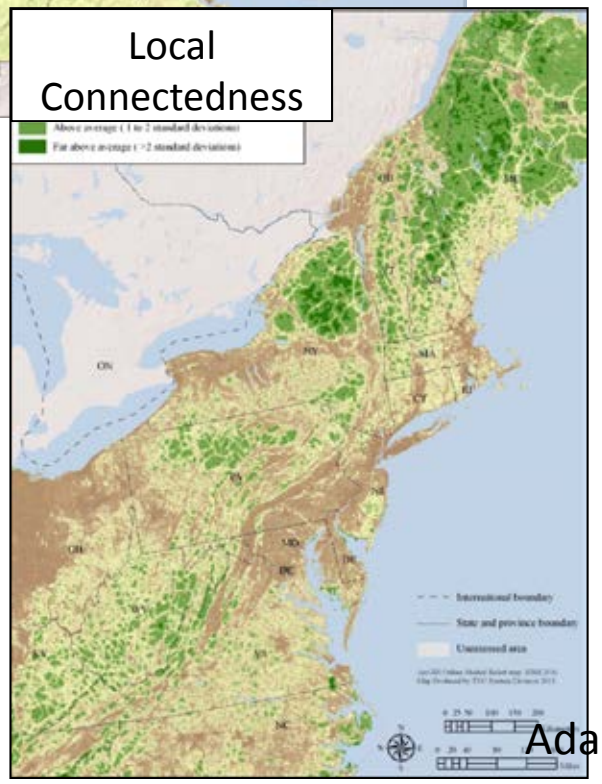
Local Connectedness



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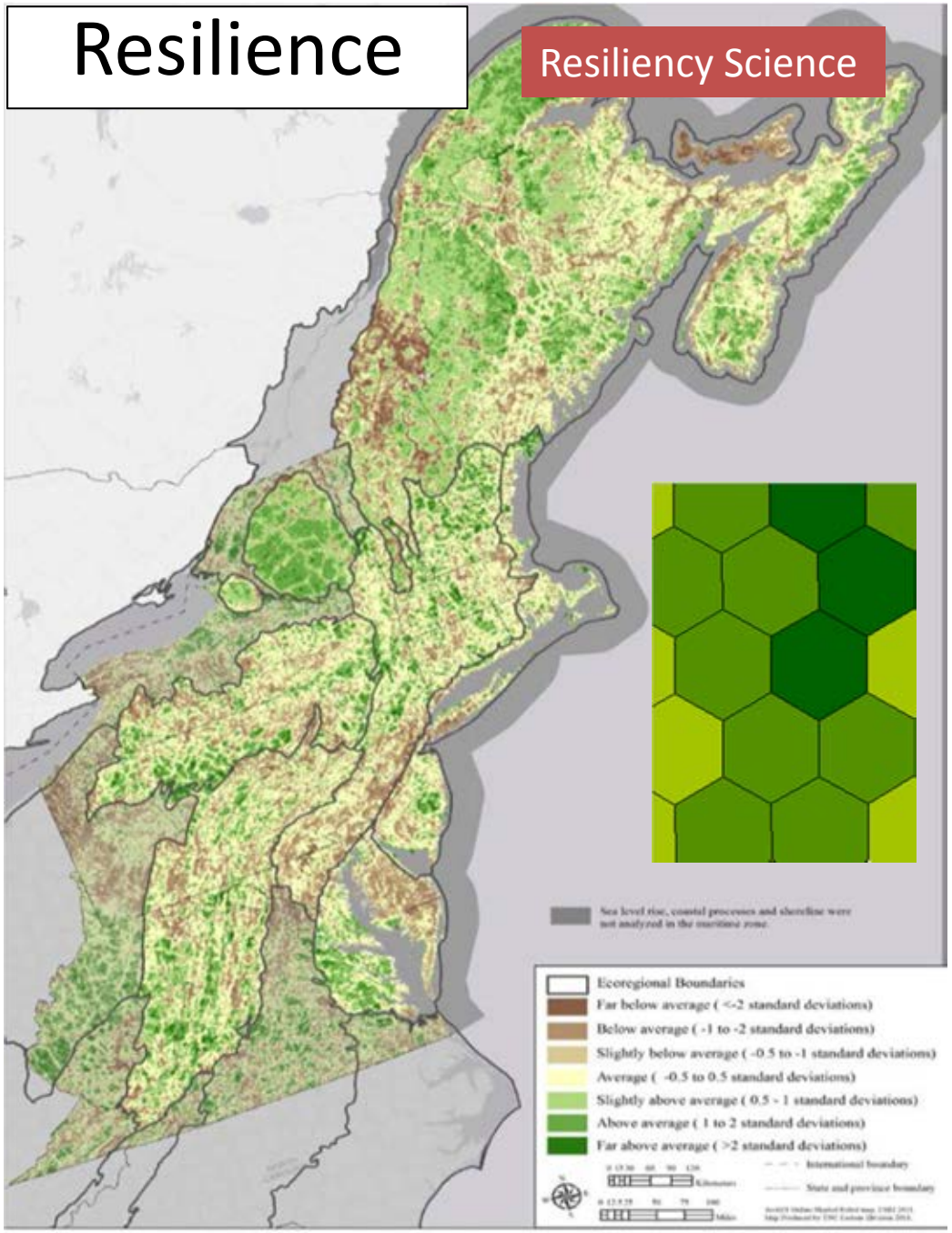
Resilience

Resiliency Science



Adapted from M. Anderson

Geology and Diversity

Resiliency Science

Bicknell's thrush
High elevation
Granite & mafic

Shale barrens
Shale slopes

Serpentine Aster
Serpentine

Piping Plover
Sandy beaches

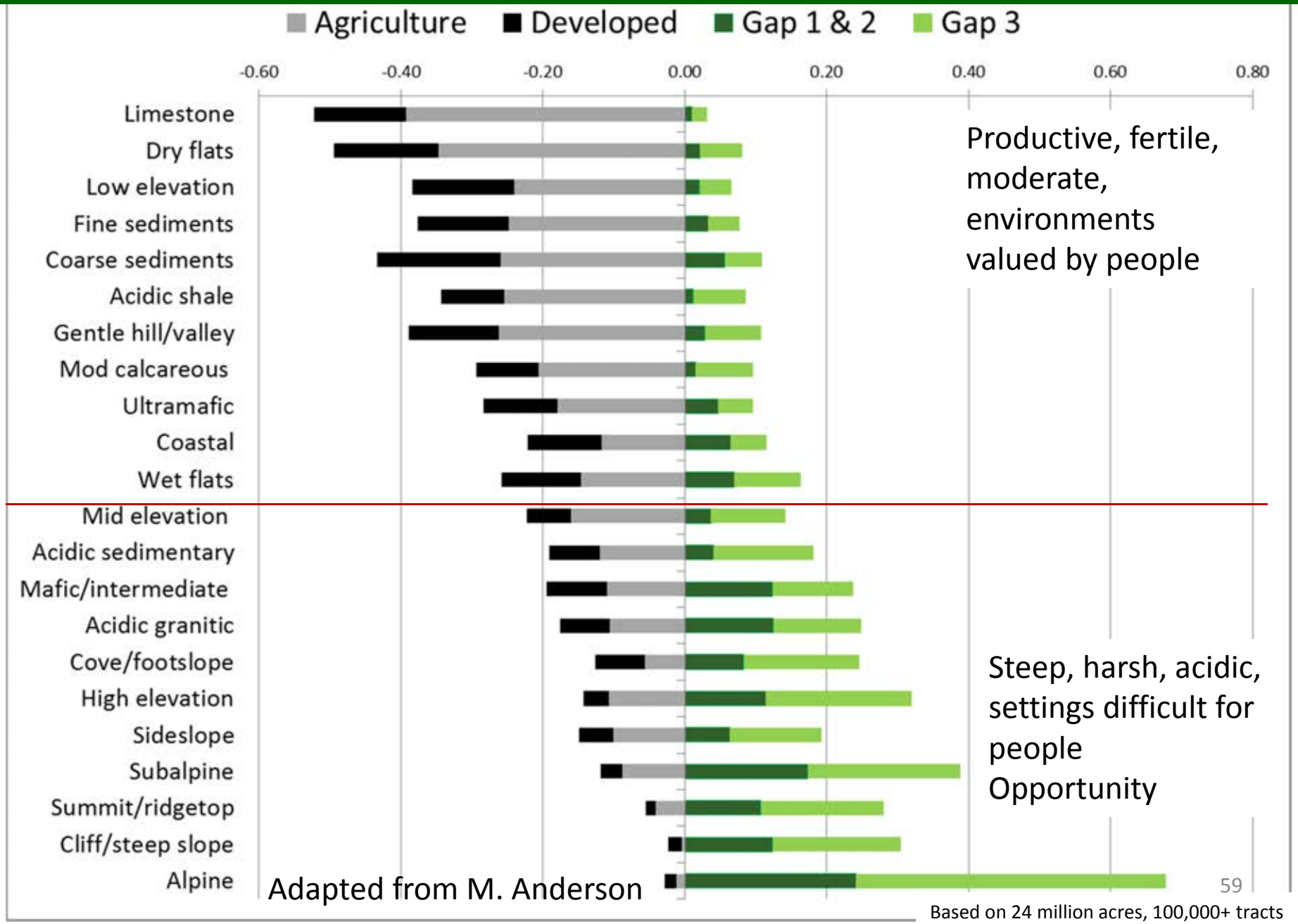
Alasmidonta Mussels
Limestone rivers

Spartina grass
Fine silts and muds

Adapted from M. Anderson

An Important Role for Land Trusts

Resiliency Science



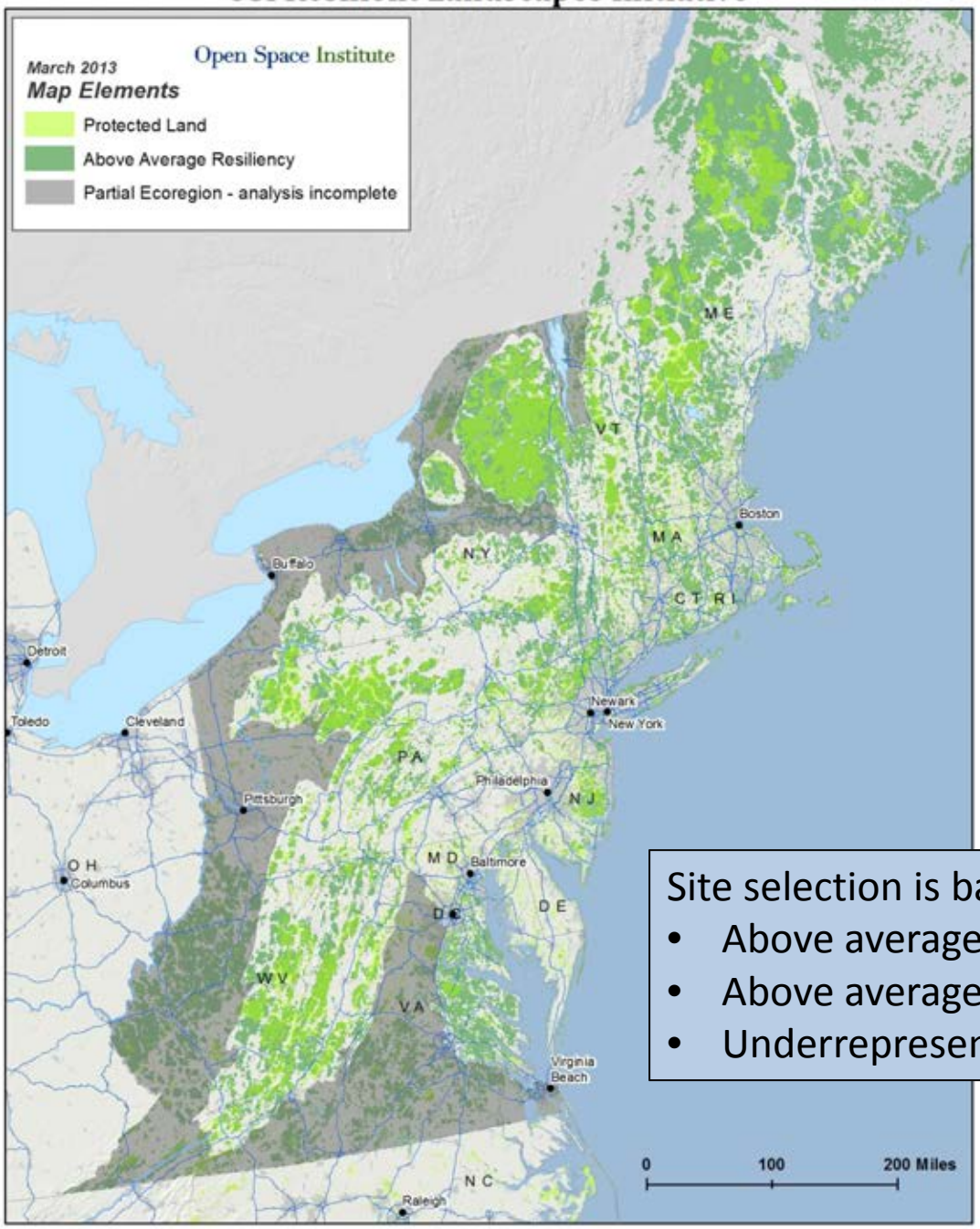
Productive, fertile, moderate, environments valued by people

Steep, harsh, acidic, settings difficult for people
Opportunity

Adapted from M. Anderson

Based on 24 million acres, 100,000+ tracts

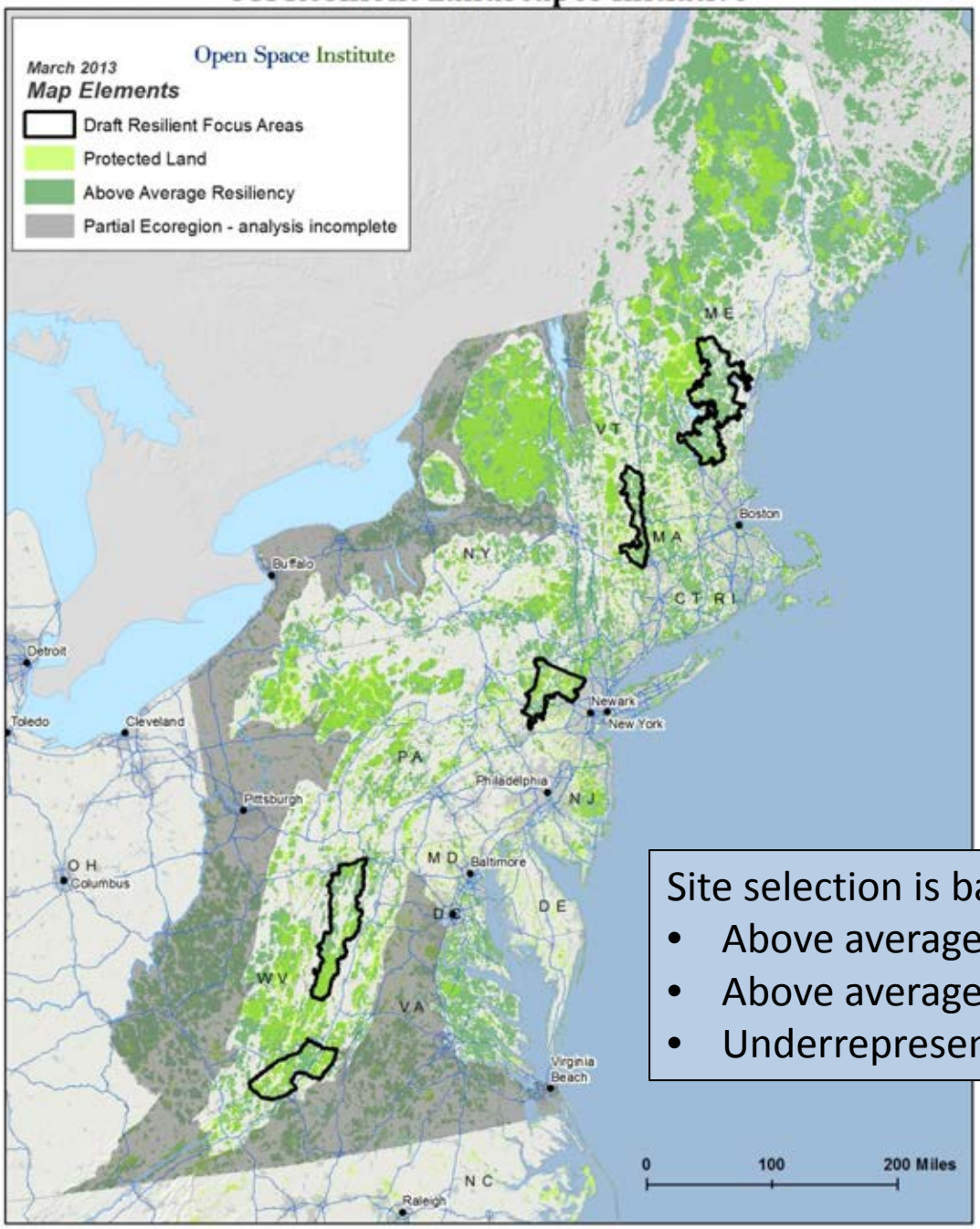
OSI Resilient Landscapes Initiative



Site selection is based on

- Above average resiliency
- Above average complexity
- Underrepresented settings

OSI Resilient Landscapes Initiative



Site selection is based on

- Above average resiliency
- Above average complexity
- Underrepresented settings

Focal Area Selection Process

Available Support

Science screen - Overseen by science advisors

Science-based focus areas

Key data:

- Landscape complexity
- Connectedness
- Diversity of geophysical settings
- Under-represented settings
- Protected Lands
- Existing Diversity

Science-based, resilient focus areas

Hypothetical focus areas Resulting from science screen

Feasibility Screen

Financial

- Private dollars directed to wildlife resiliency
- Public funding
- Ability to produce a 5:1 match

Land trust & agency capacity

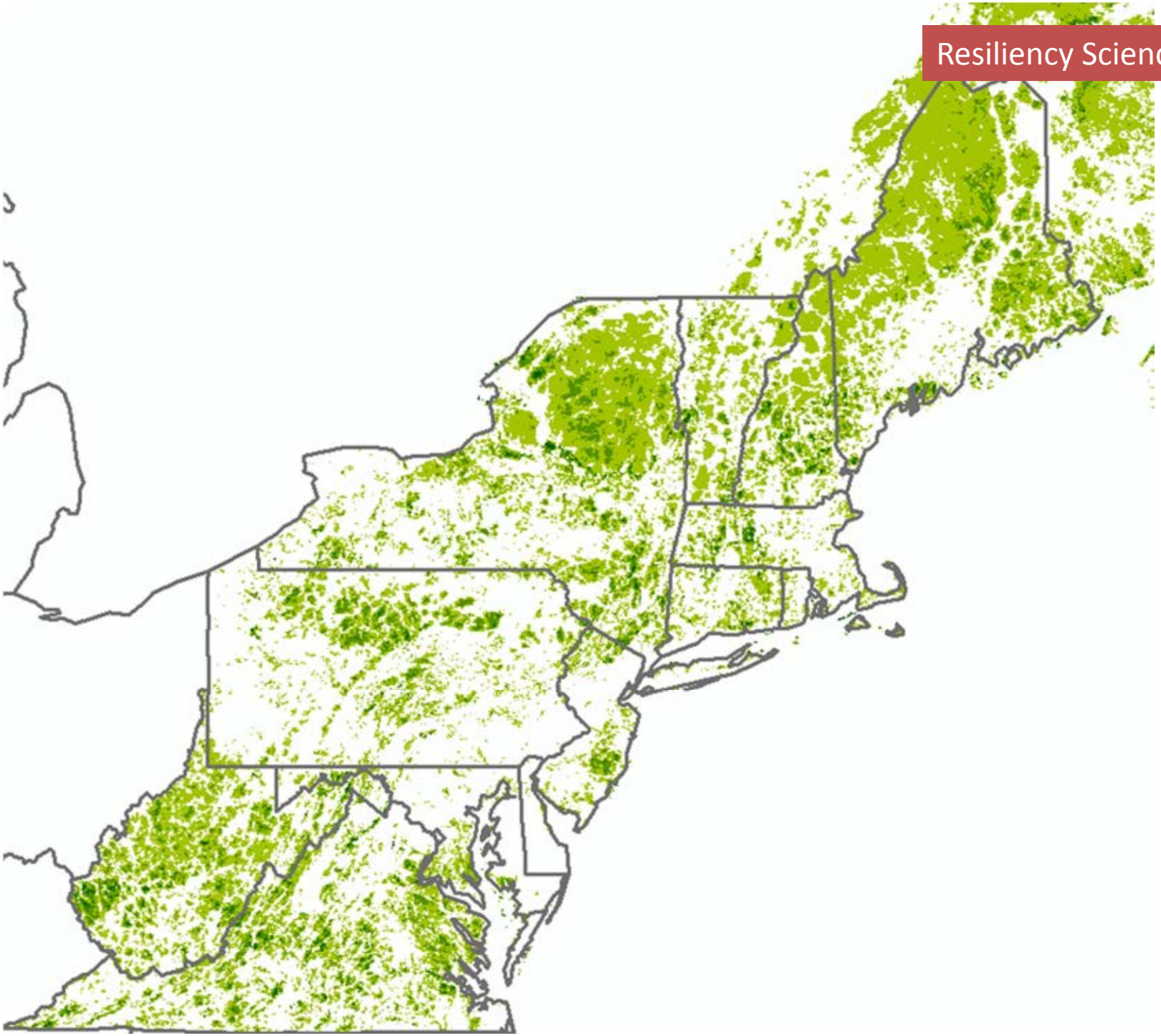
- Track record of successful transactions
- Focus on wildlife adaptation
- Presence of deals and willing landowners
- Partner local and/or state agencies

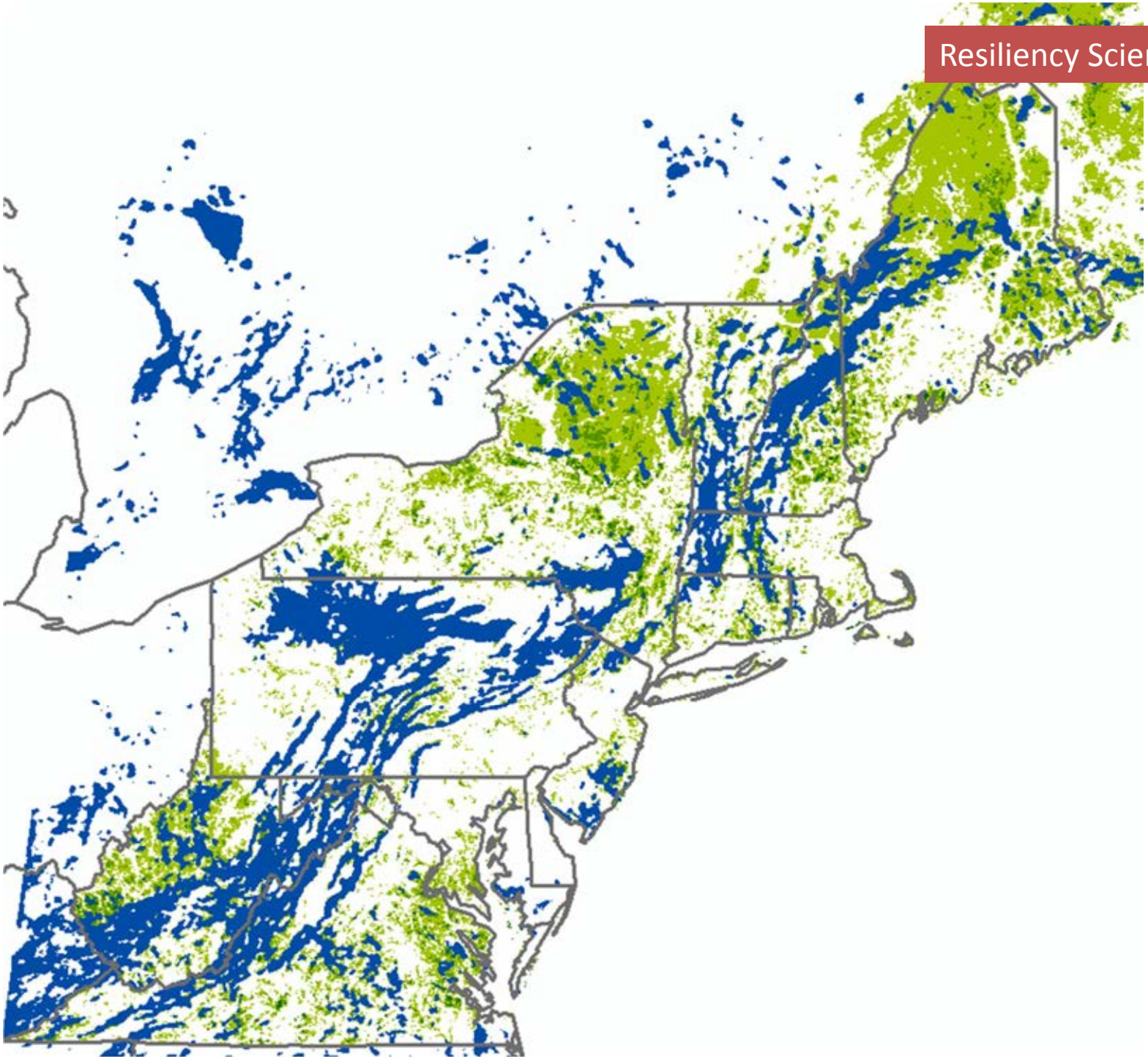
Threat

- Housing development
- Pipelines and/or transmission lines
- Major energy development (e.g. wind, shale, solar)

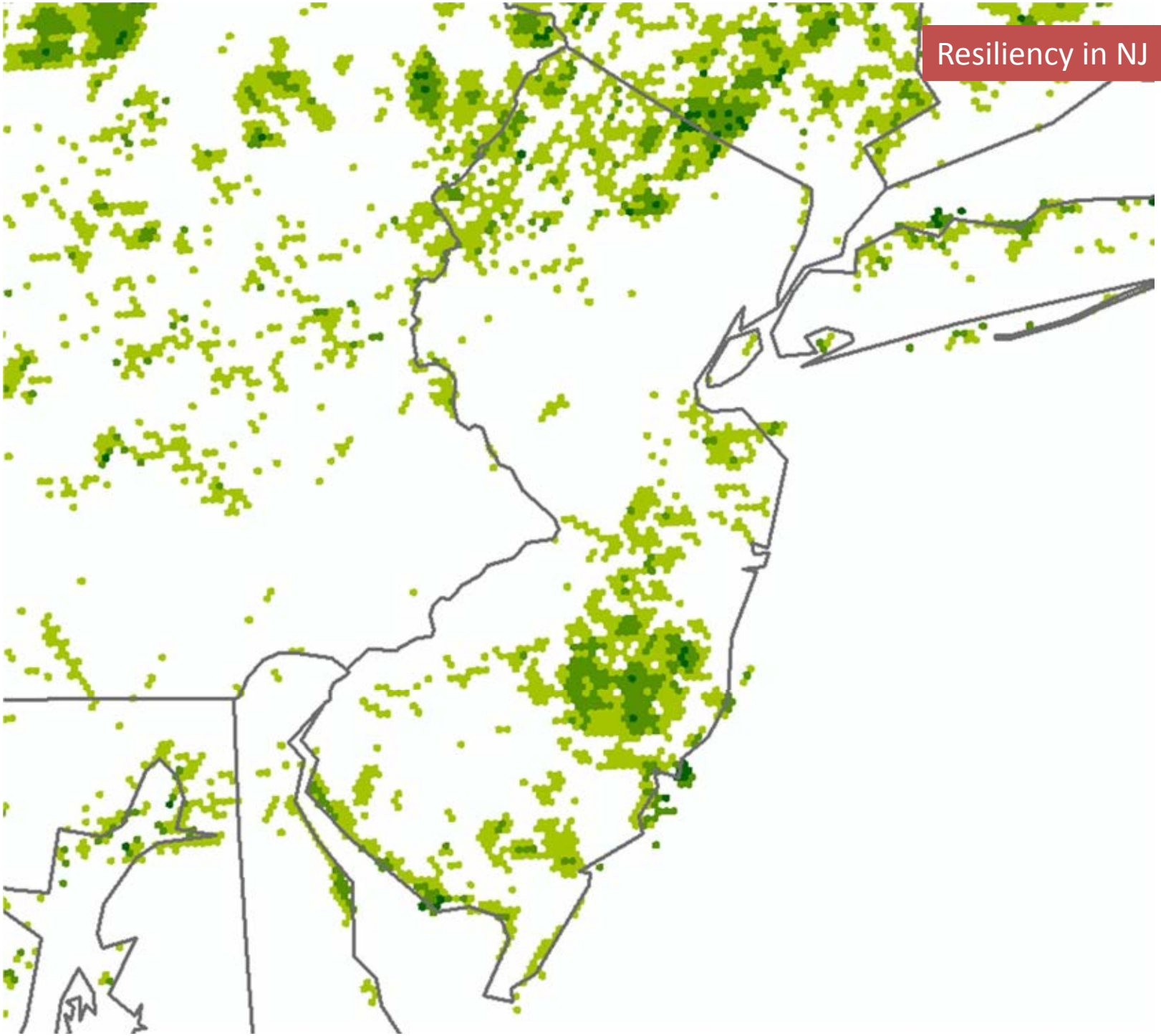
Two to four focus areas for grants and targeted outreach

Hypothetical focus areas Resulting from feasibility screen

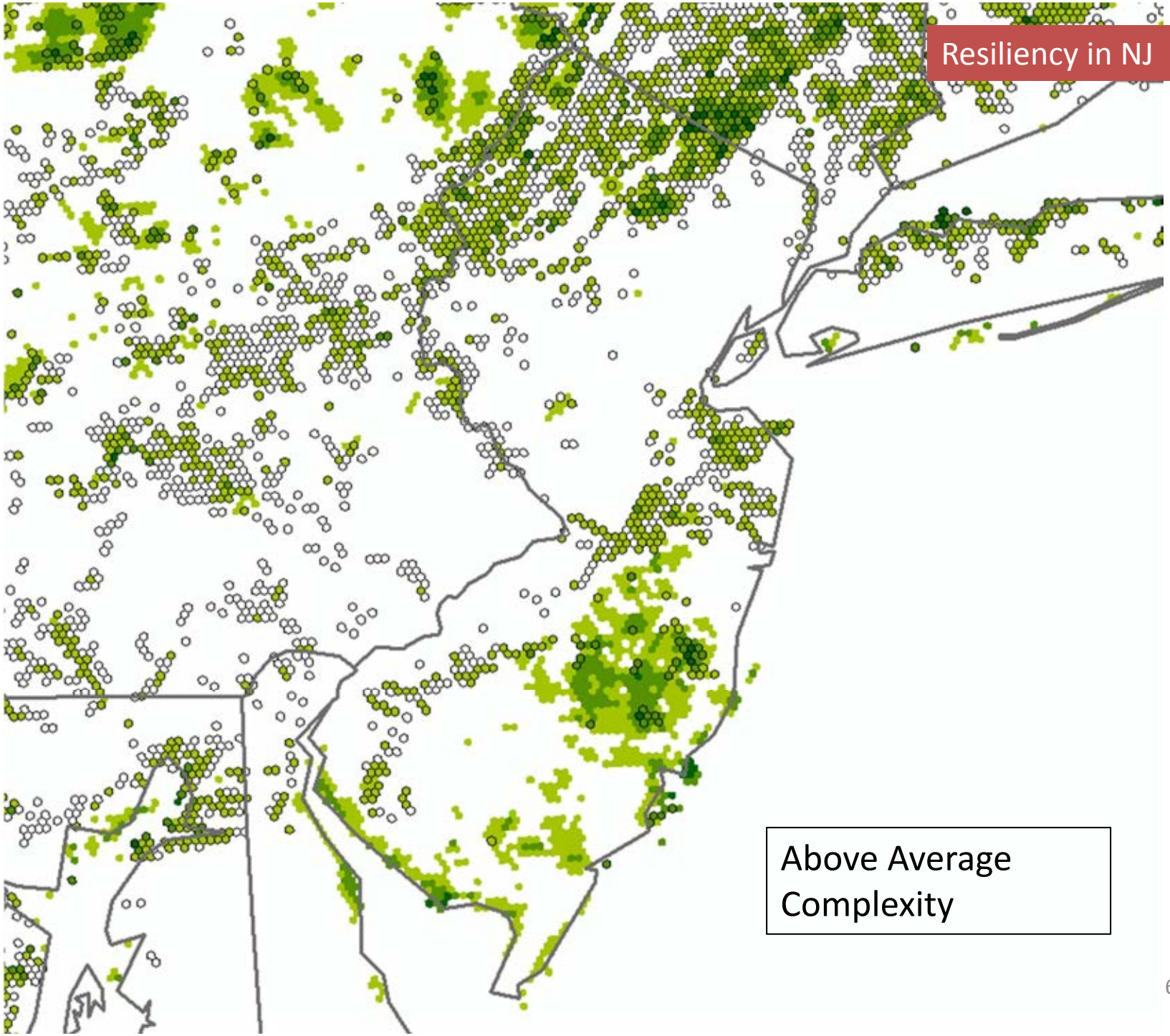

Resiliency Science



Resiliency in NJ

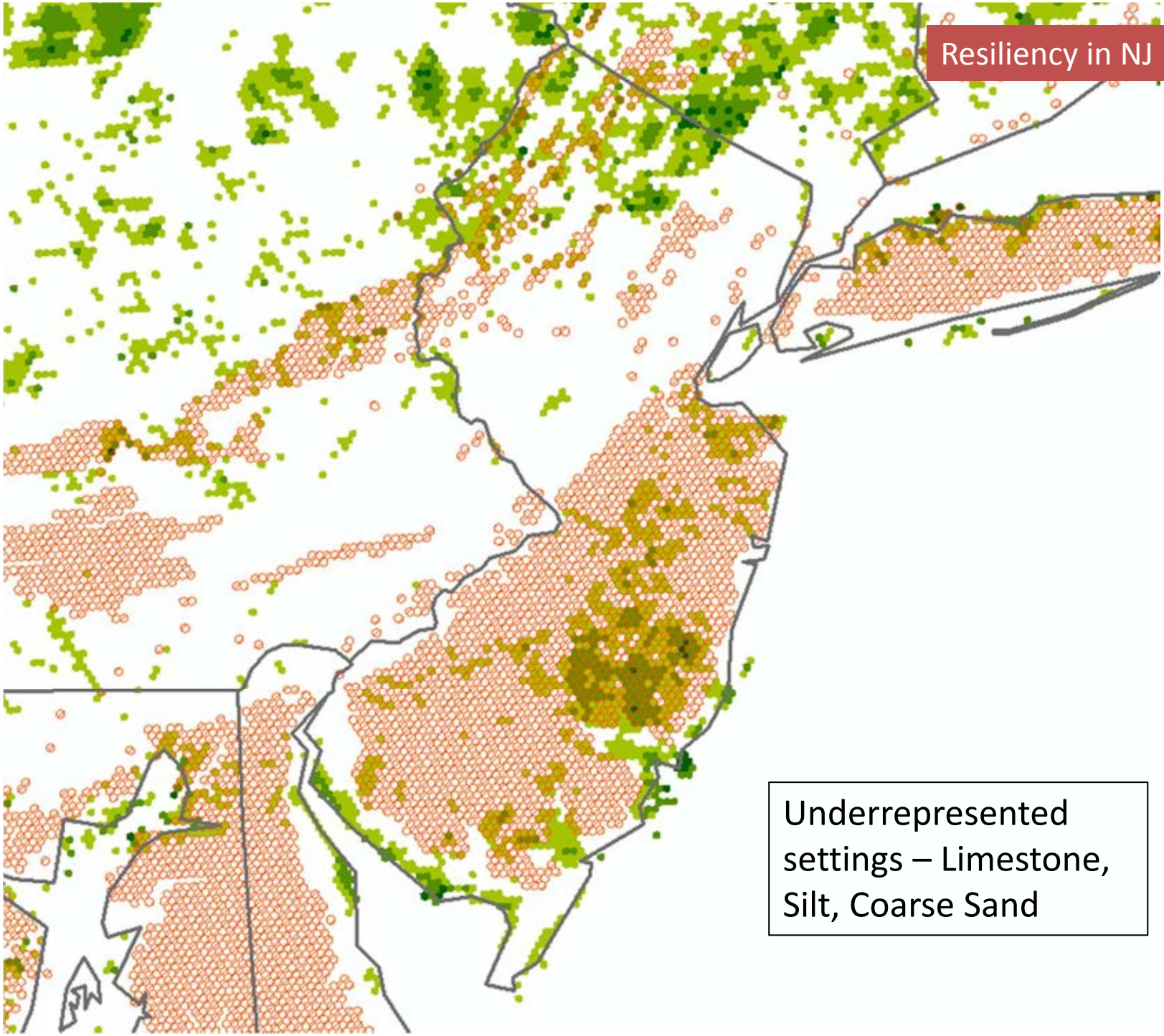


Resiliency in NJ

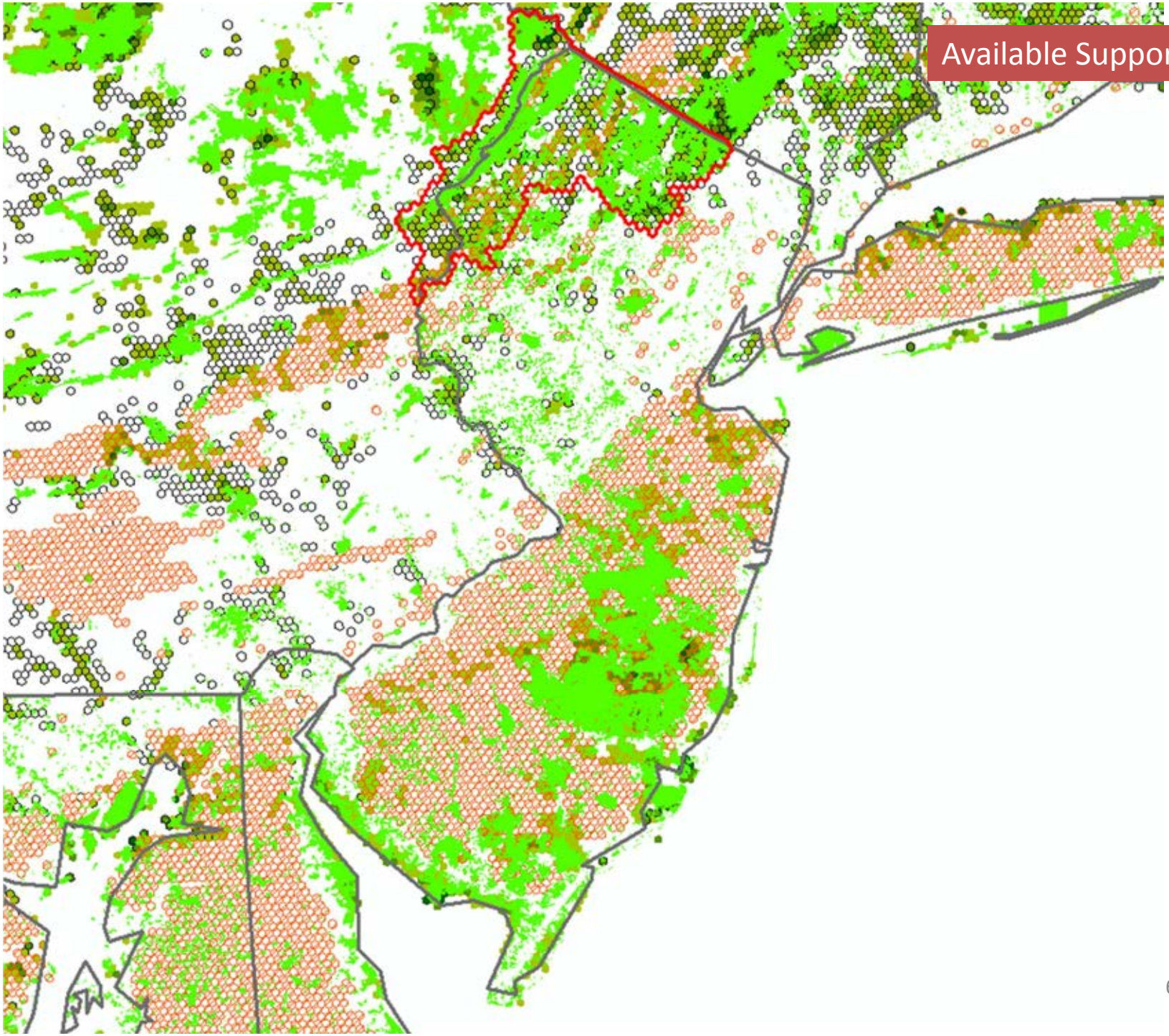


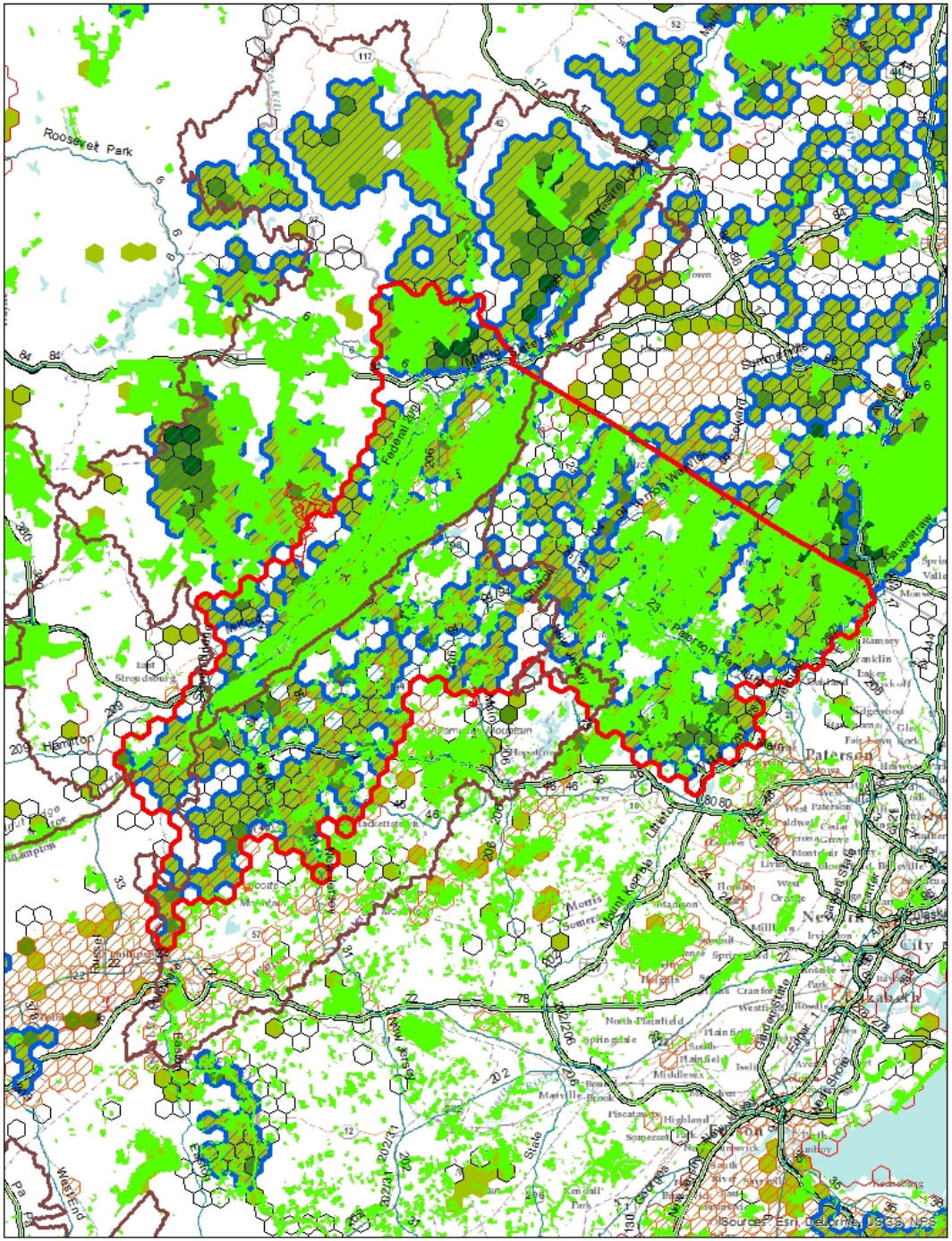
Above Average Complexity

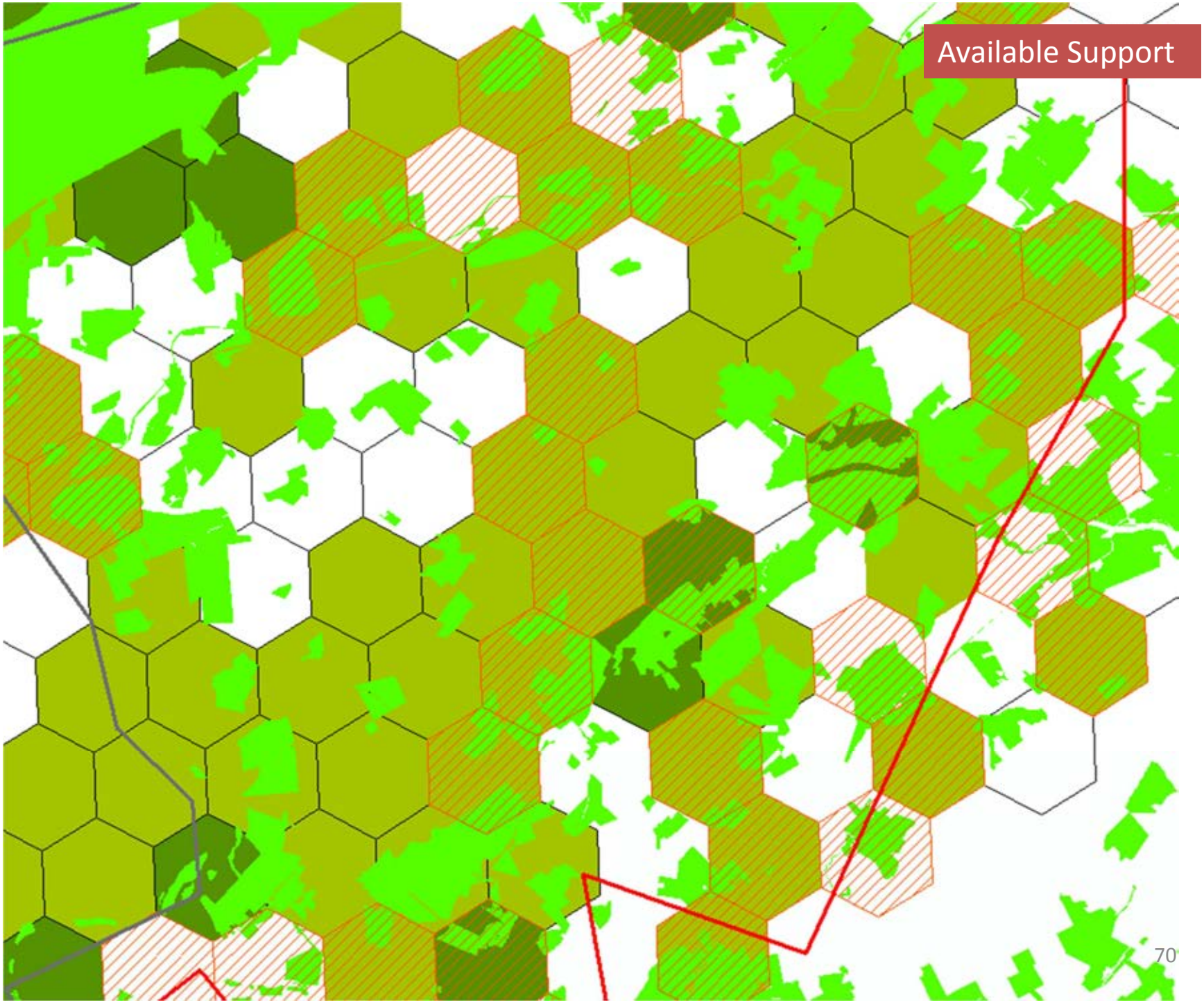
Resiliency in NJ



Underrepresented settings – Limestone, Silt, Coarse Sand


Available Support


Roosevelt Park
Paterson
Newark
Elizabeth
Hamilton
Sources: Esri, DeLorme, USGS, NPS


Available Support

Available Support

Education and Outreach

1. Ensure the science is accessible
   - Develop guidelines and examples of how to use the data
   - Provide technical assistance as needed
2. Integrate the science into existing conservation planning
   - Work with land trusts and state agencies to identify intersecting priorities
   - Integrate the science into criteria for public funding, as appropriate
   - Work with three to seven land trusts across the region to integrate resiliency into their conservation work
3. Document and communicate about conservation of resilient sites
   - Provide case studies and lessons for conserving resilient sites
   - Consider metrics for evaluating progress towards more resilient landscapes

Questions

- Is your organization integrating climate change considerations into your work now? If so, how?
- Could this science mesh with your priorities and your current work? Are there barriers to using it?
- What resources do land trusts and agencies need to use this science?
- What assistance would you need to begin working with this new science?