

A.T. Landscape's Aggerated Spatial Information Tool (ATLAS IT)

SMP - Workshop



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Appalachian Trail Conservancy

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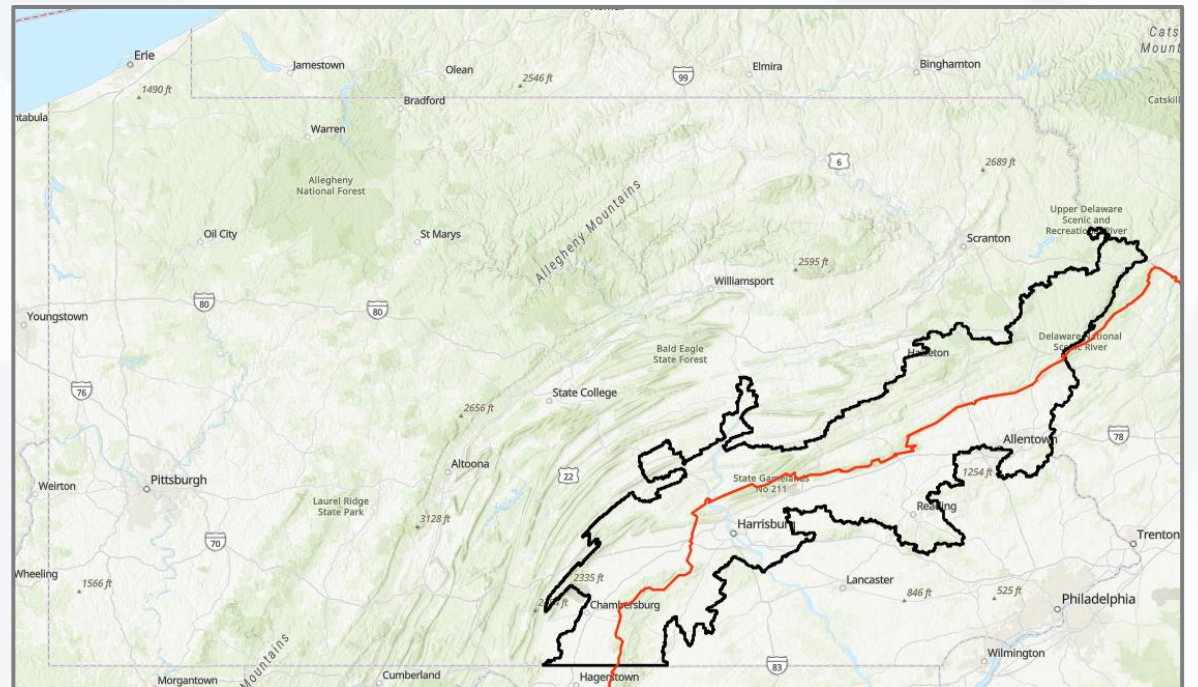
Appalachian Trail Conservancy

Mission: To protect, manage, and advocate for the Appalachian National Scenic Trail.

Vision: The A.T. and its surrounding landscape are protected forever for all to enjoy

Landscape Conservation Program

- Increase the pace and scale of land conservation within the A.T. Landscape.
- Collaboration with partners



Meeting (workshop) Agenda



Meeting Purpose:

To introduce our current iteration of ATLAS IT and elicited partner and stakeholder feedback on how to improve the tool.

ATLAS IT Footprint:

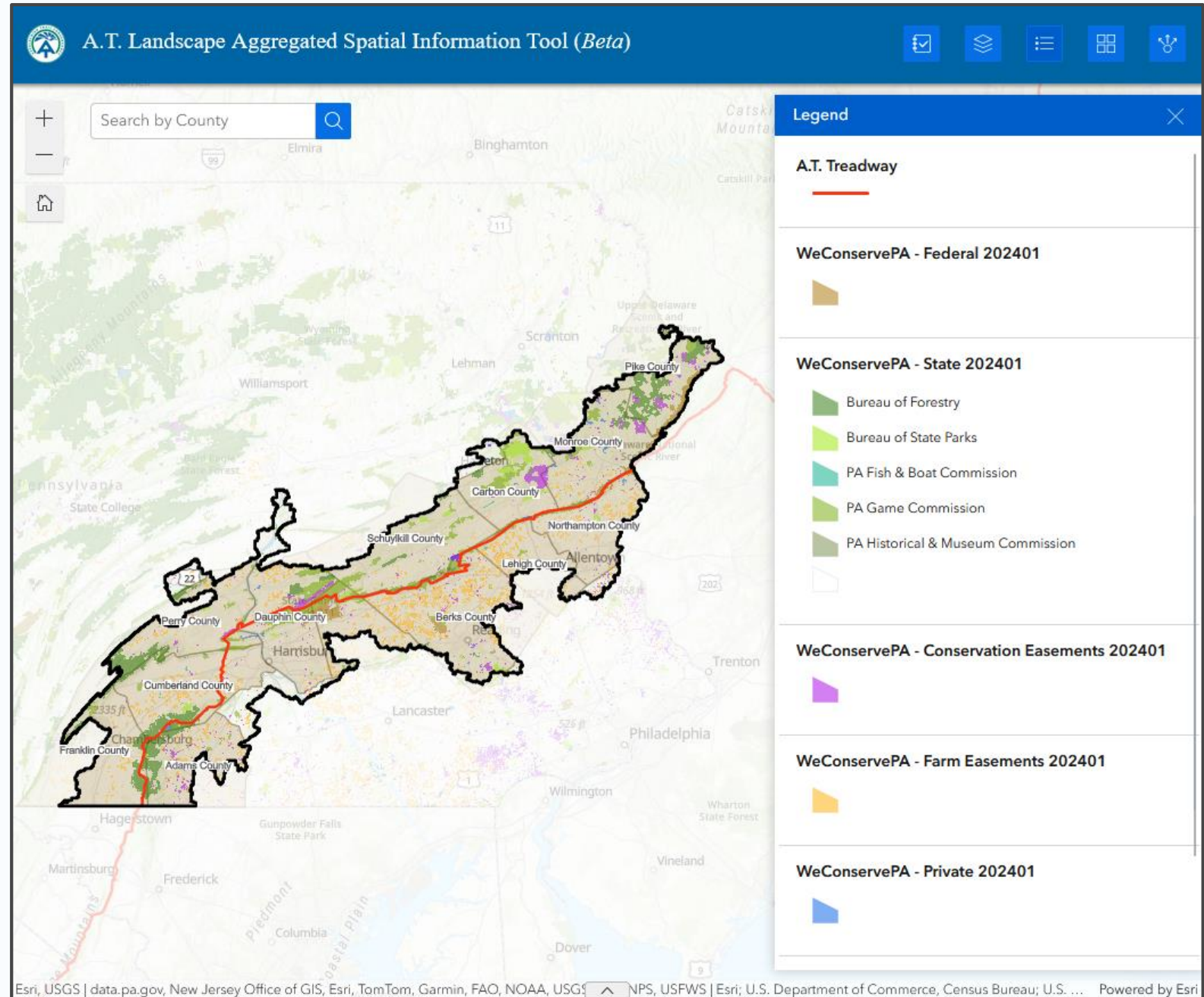
The A.T. Landscape (HUC10 shell), through Pennsylvania.

Meeting Timeframe:

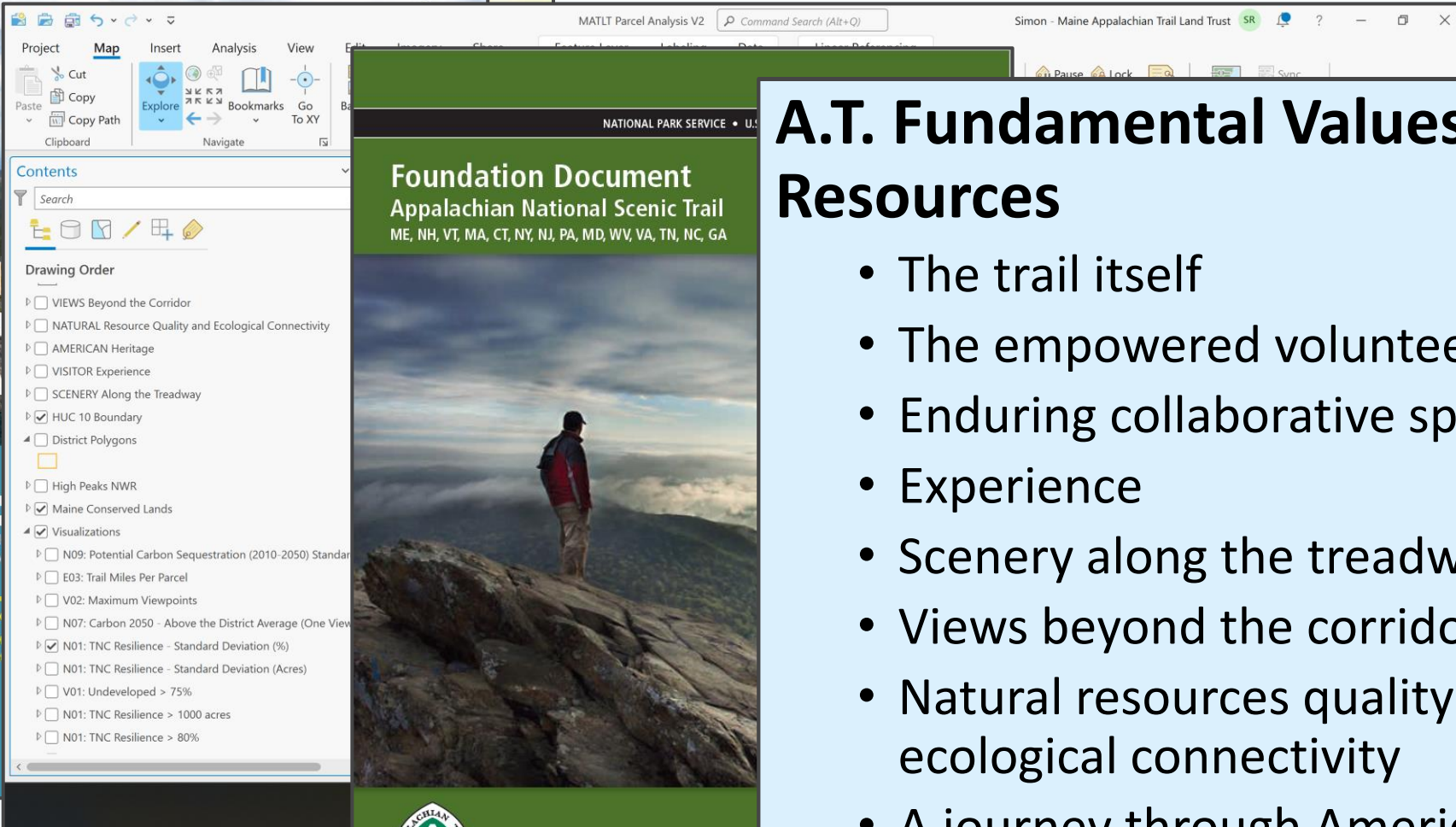
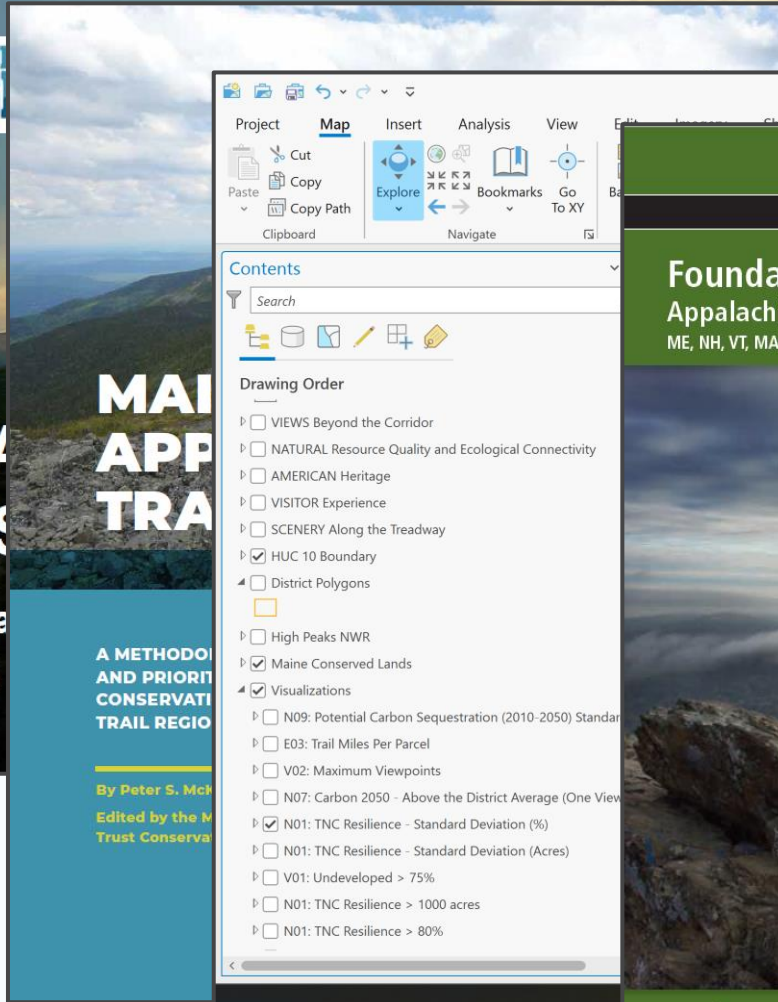
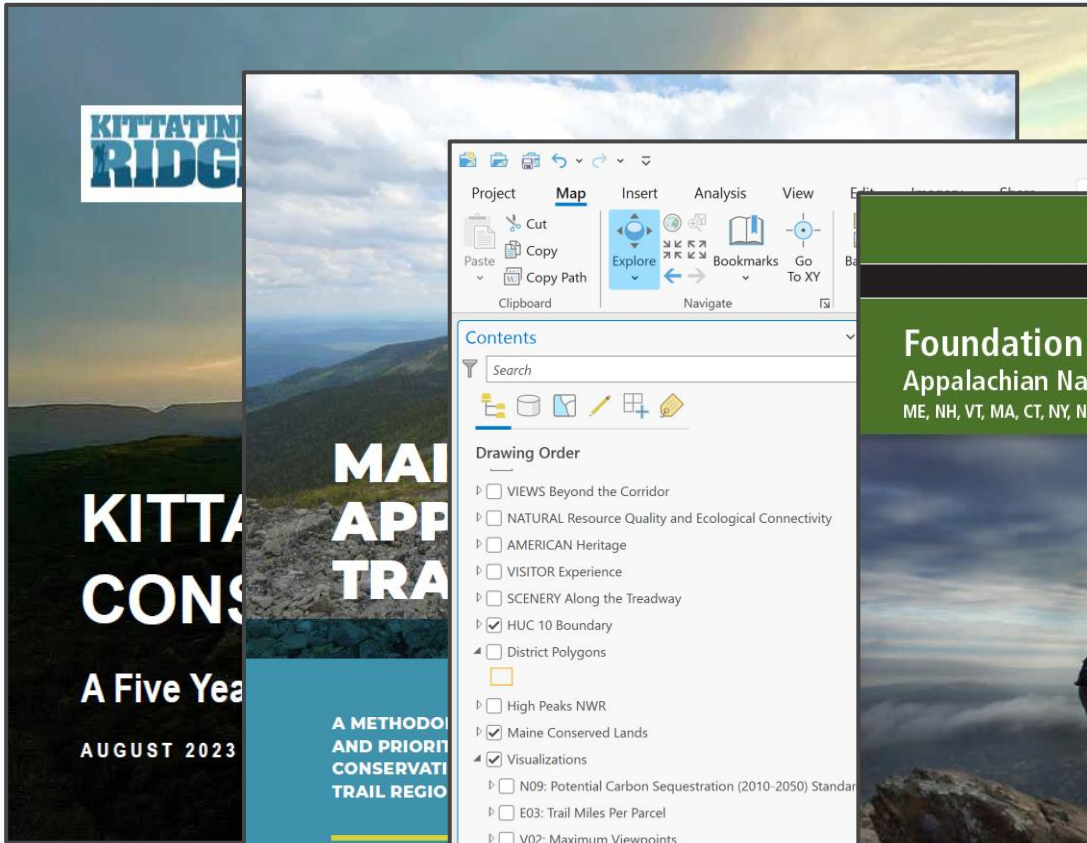
- Presentation with Q&A (30 mins)
- Demonstration with Q&A (15 mins)
- Questionnaire (appx 10mins)
- Small group discussions (20 mins)
- Wrap-up (5 mins)

What is it?

- GIS-based Tool:
Information sharing
 - Conservation-related data
 - Landscape scale or parcel level
- Purpose:
Helpful to a wide coalition of partners
 - Land protection
 - Planning
 - Grants/fundraising
 - Communications



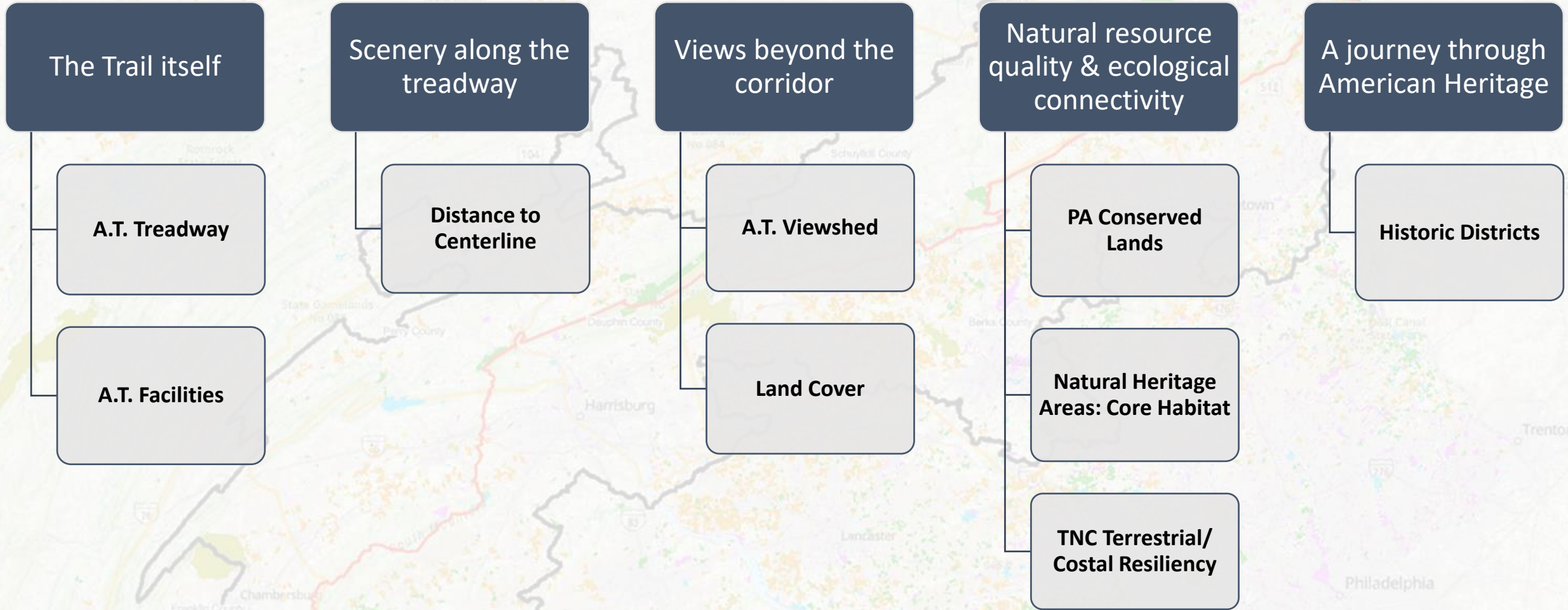
Building the Pennsylvania the pilot tool – Phase 1



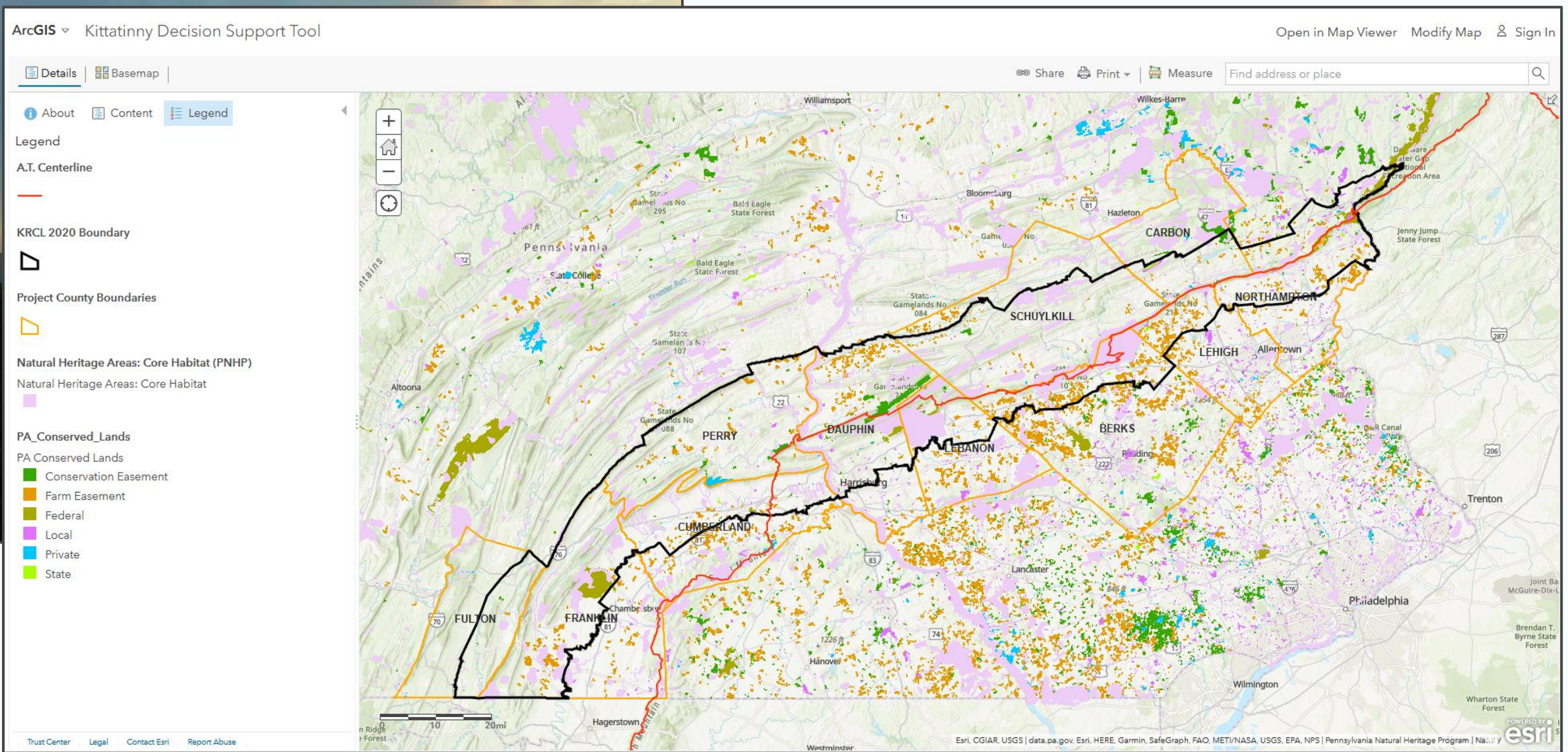
A.T. Fundamental Values & Resources

- The trail itself
- The empowered volunteer
- Enduring collaborative spirit
- Experience
- Scenery along the treadway
- Views beyond the corridor
- Natural resources quality and ecological connectivity
- A journey through American Heritage

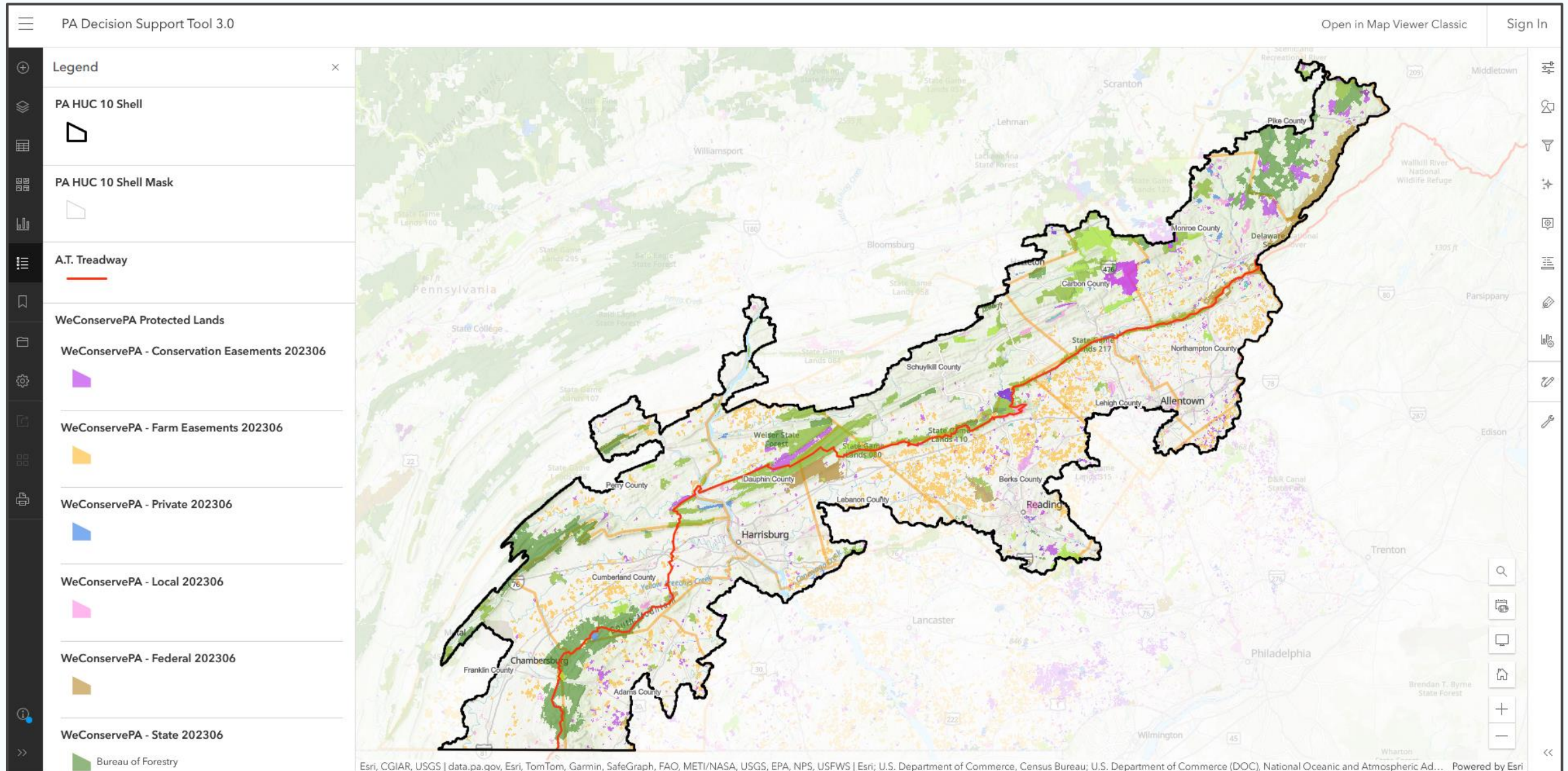
Operationalizing A.T. Conservation Values



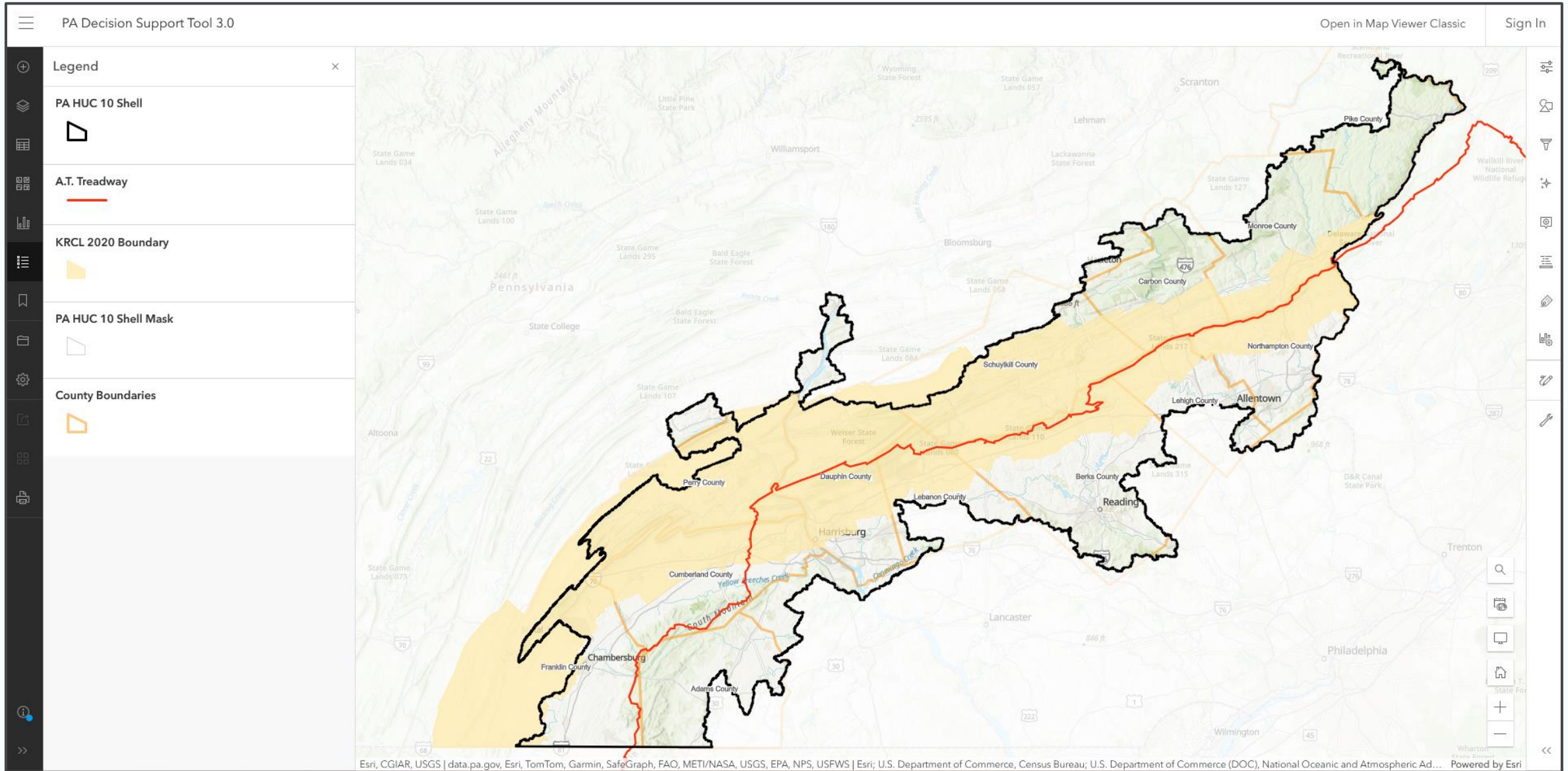
Building the Pennsylvania the pilot tool – Phase 1



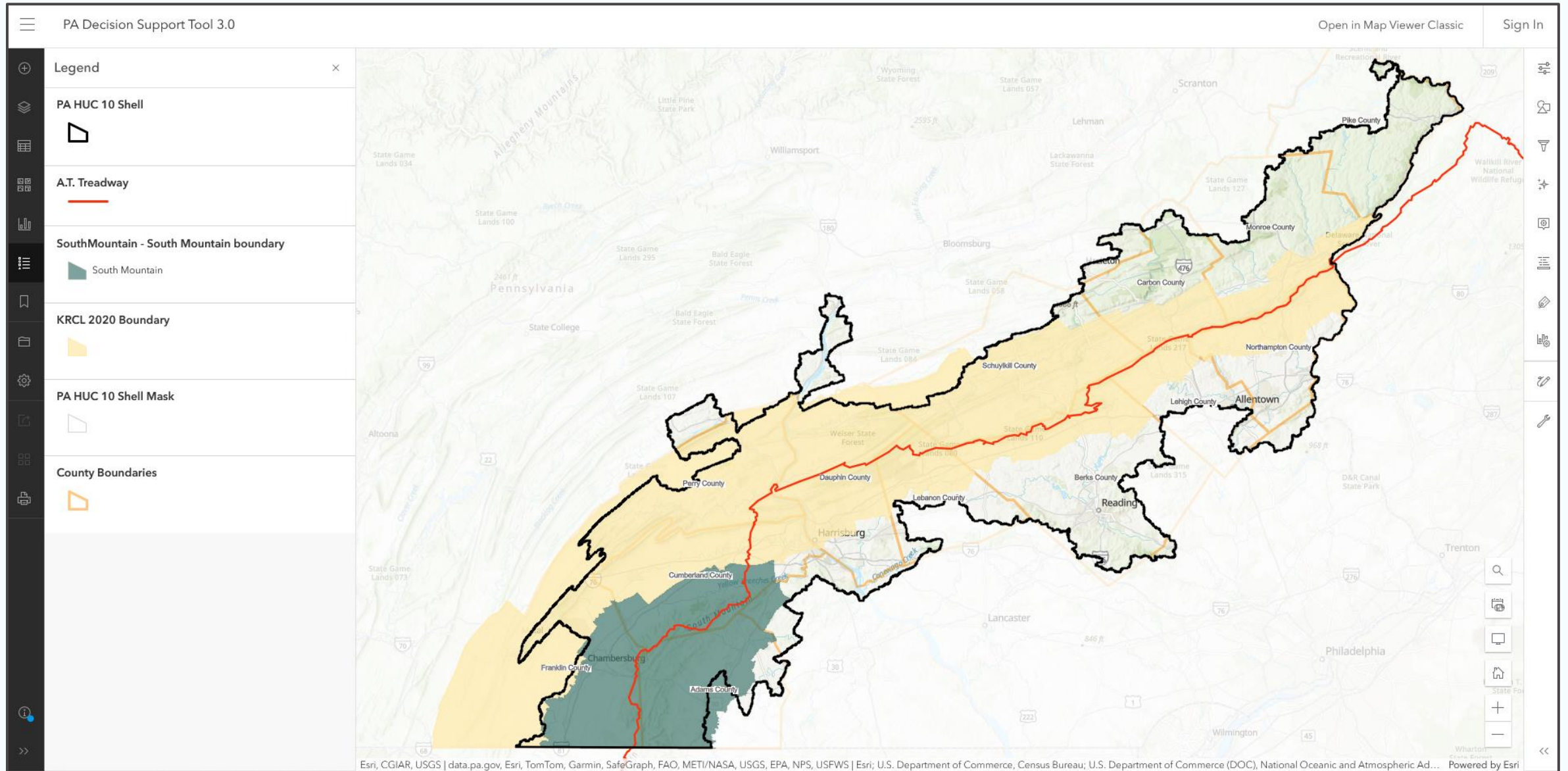
Expanding the Pennsylvania ATLAS IT – Phase 2



Expanding the Pennsylvania ATLAS IT – Phase 2



Expanding the Pennsylvania ATLAS IT – Phase 2



Improving the Pennsylvania ATLAS IT – Phase 2



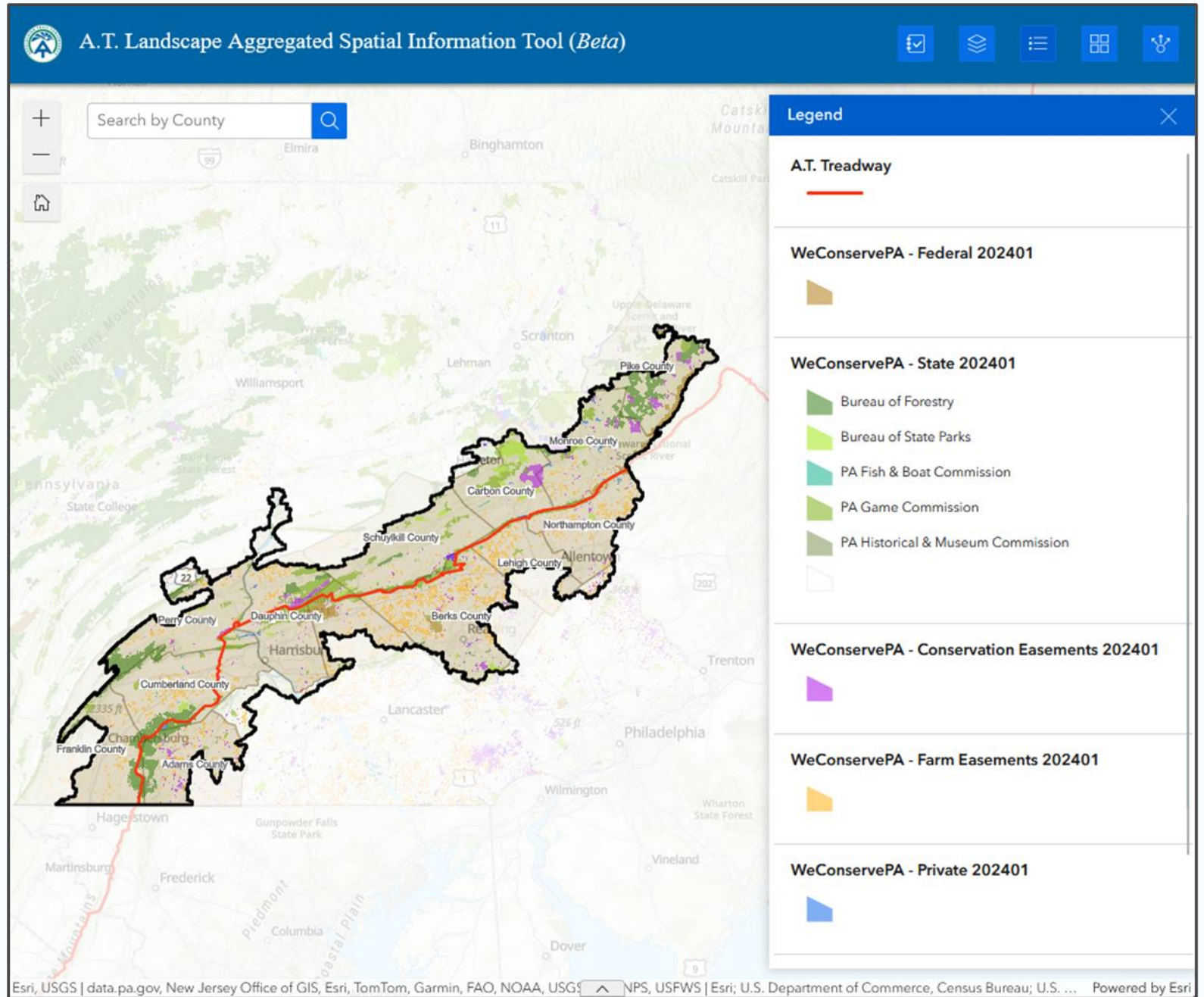
OPEN SPACE INSTITUTE




Center for Land Use and Sustainability


SHIPPENSBURG UNIVERSITY

Phase 3 – *Share, Expand, & Improve* the Pennsylvania ATLAS IT



Phase 3 – Share, Expand, & Improve the Pennsylvania ATLAS IT



A.T. Landscape Aggregated Data Portal



APPALACHIAN TRAIL CONSERVANCY
 PARCEL CONSERVATION REPORT

GENERAL PARCEL INFORMATION	
County Name	Cumberland
TaxPIN	08-15-0197-003
Parcel Acres	141.99 Acres
Percent Visible	8.49 %
Protection Status	N/A
Conservation Lands Count	1
Land Cover Type & Percent:	Tree Canopy (100 %) Low Vegetation (0 %)

Parcel Location Map



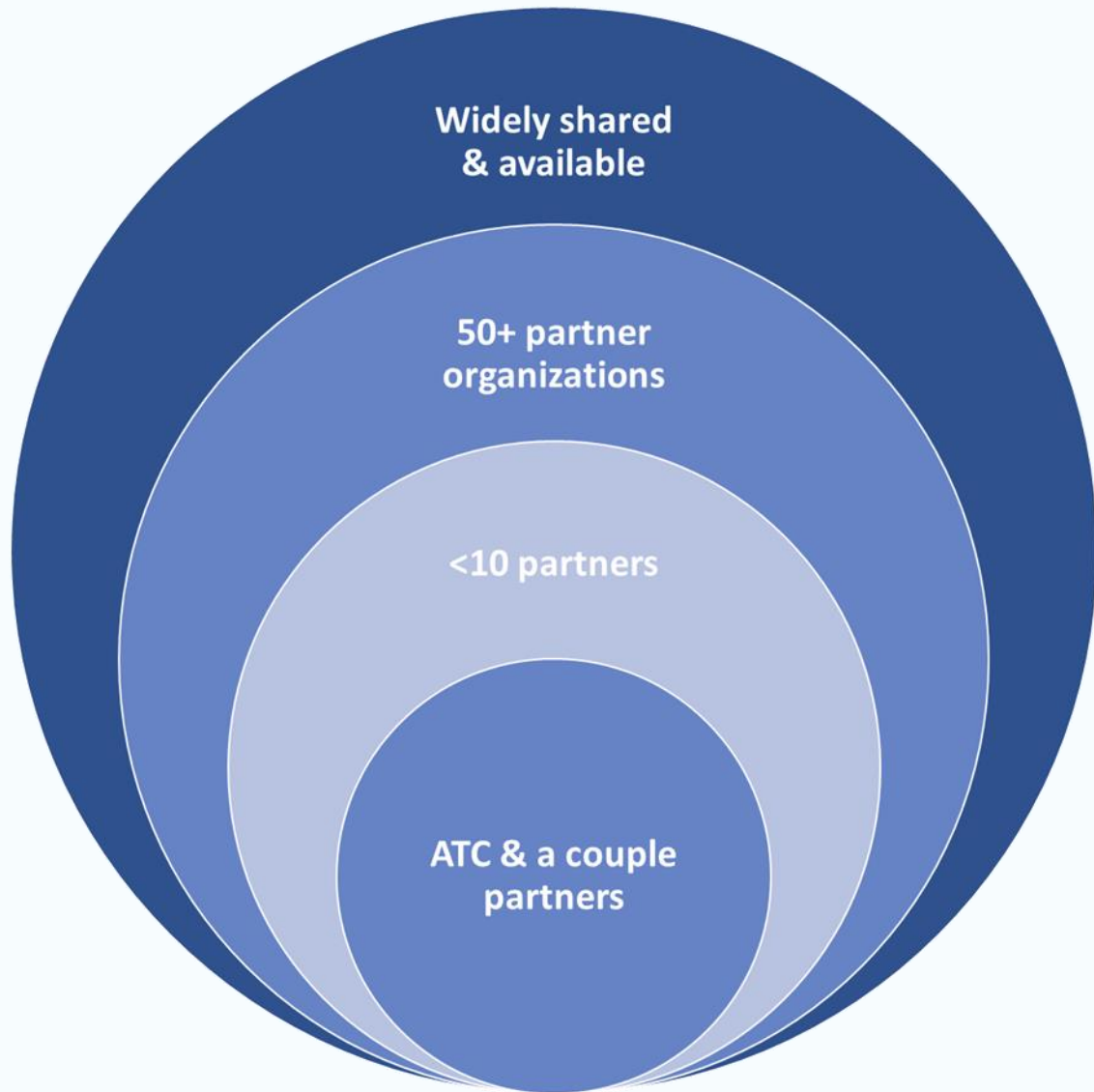
Maxar | National Park Service Appalachian National Scenic Trail... Powered by Esri

HABITAT	
Natural Heritage Count	N/A

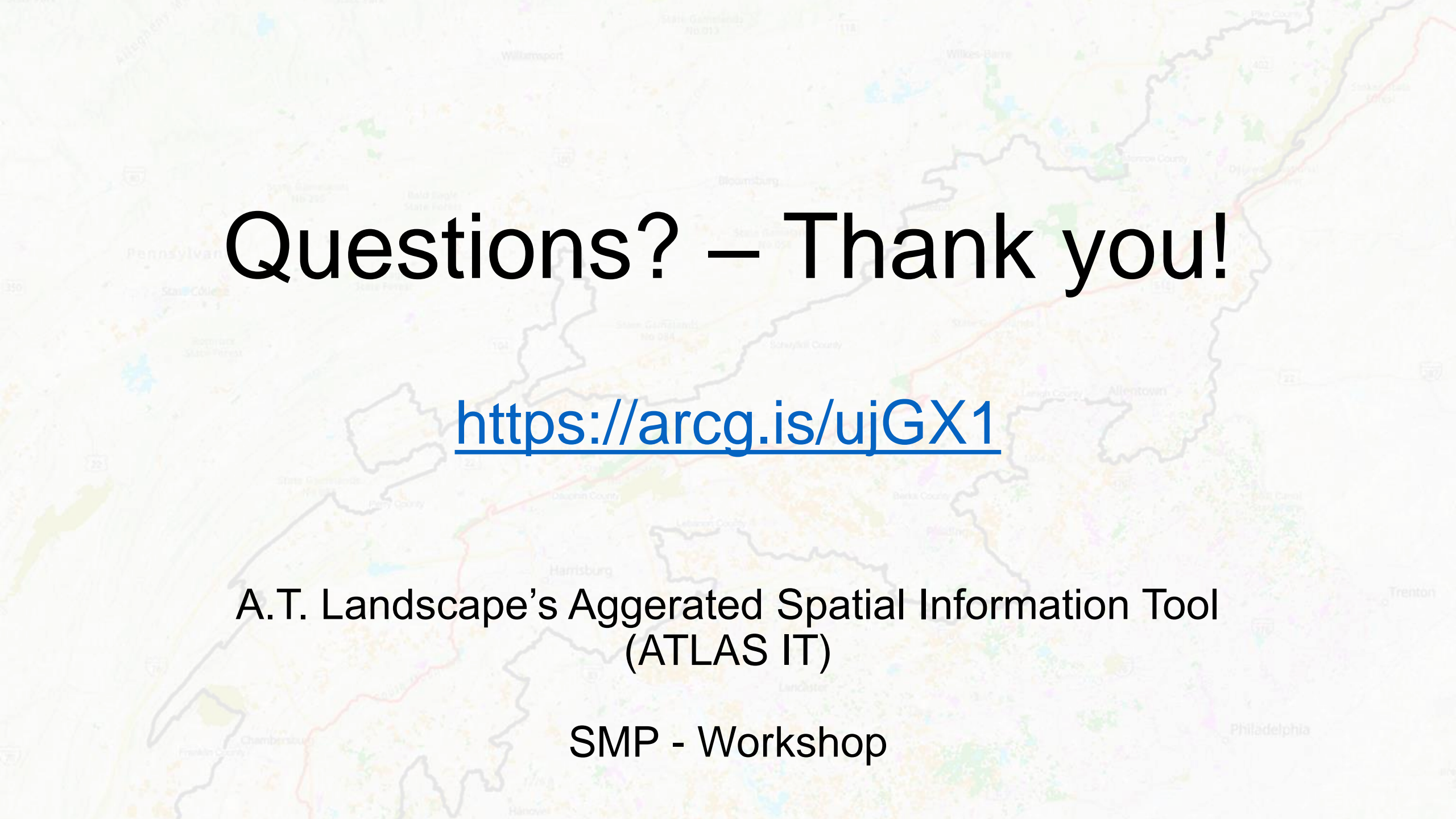
CLIMATE CHANGE	
Resilience Type:	Slightly more resilient
Resilient Type Acres:	7.4 Acres

Esri, NASA, NGA, USGS, FEMA | Esri Community Maps Contributors, data.pa.gov, Esri, TomTom
min, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, U... Powered by Esri

ATLAS IT – Next Steps



1. Sharing the tool
 - Pennsylvania practitioners
 - ATLP
2. Release the report
 - Share it with participants
3. Continue improving the tool
 - More datasets
 - Improved the interface
 - Better reports
4. Possibly replicate in other States
 - NJ?, MD?, VA?



Questions? – Thank you!

<https://arcg.is/ujGX1>

A.T. Landscape's Aggerated Spatial Information Tool
(ATLAS IT)

SMP - Workshop

A map of Pennsylvania showing various geographical features, cities, and counties. A large, irregular black outline is drawn over the map, representing a specific region or watershed. The map includes labels for major cities like Harrisburg, Lancaster, and Philadelphia, as well as various state forests and gamelands. The text "Decision Support Tool Demonstration" is overlaid in the center of the map.

Decision Support Tool Demonstration

Operationalizing A.T. Conservation Values

The Trail itself

A.T. Treadway

- A.T. Centerline

A.T. Facilities

- Count within 500ft
- Parking lots, campsites, shelters, & side trails

Scenery along the treadway

Distance to Centerline

- Straight line distance from Trail to nearest parcel edge
- Generate near table

Views beyond the corridor

A.T. Viewshed

- A.T. Vistas & VRI data
- Percent visible
- “source(s)” of visibility

Development

- Acres
- Percent

Natural resource quality & ecological connectivity

PA Conserved Lands

- Adjacent to parcel
- Issue: selected parcel’s status not clear

Natural Heritage Areas: Core Habitat

- Adjacent to parcel
- Issue: selected parcel’s status not clear

TNC Terrestrial/ Costal Resiliency

- Percent of each category

A journey through American Heritage

National Register Eligibility

- Historic District areas
- Count within 500ft
- Issue: selected parcel’s status not clear

[End of Presentation]

What's next?

Next Steps

- Improving the v2.0
- Coming up with a name for the tool
- Developing a Report
- Sharing tool & report w/ the A.T. Landscape Partnership (Conservation Com.)

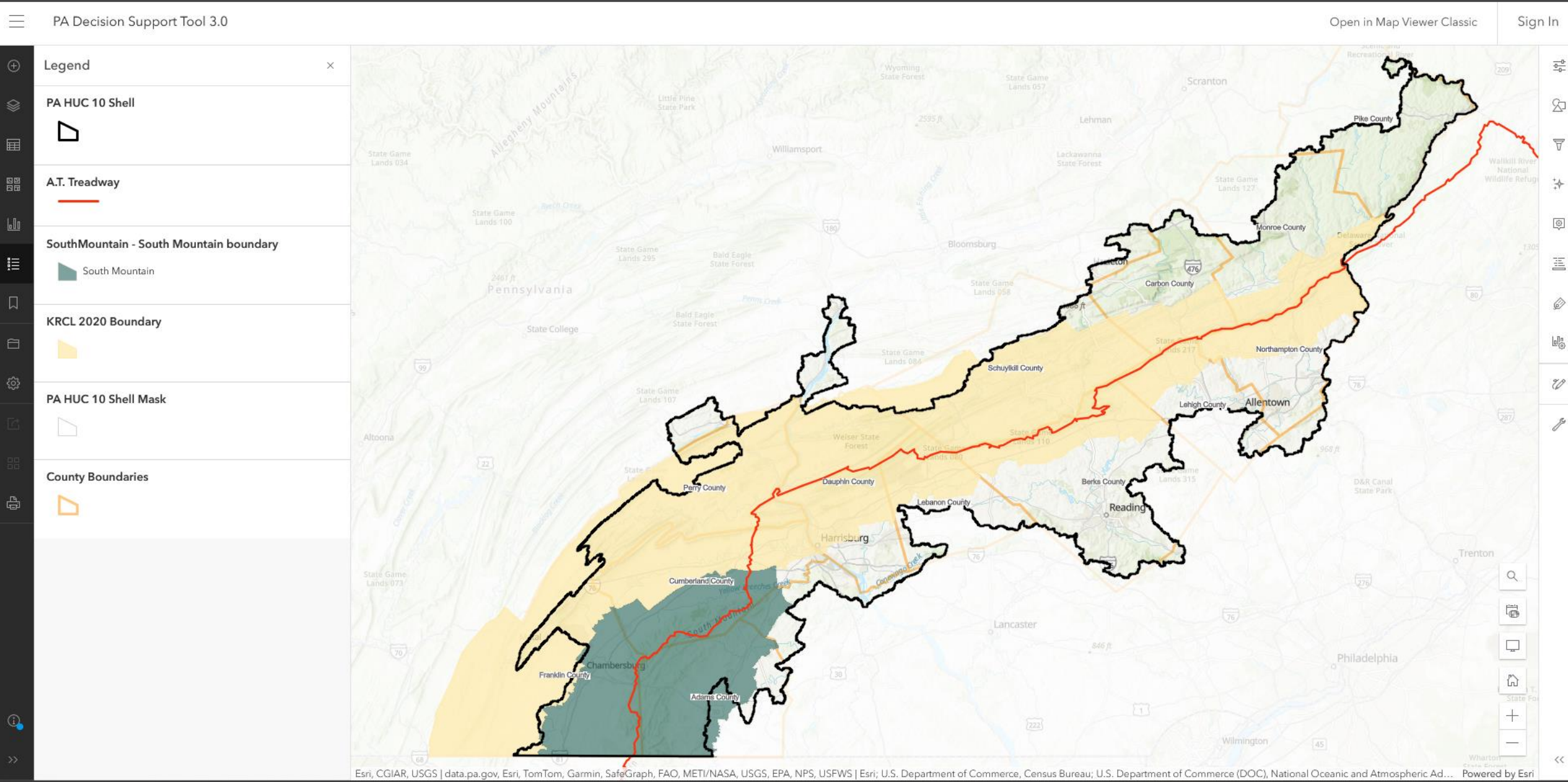
Potential - More than just land protection

It could help inform...

- Ecological restoration
- Programming outreach
- Partnership/coalition building
- Volunteer recruitment
- Project tracking
- Facilities development

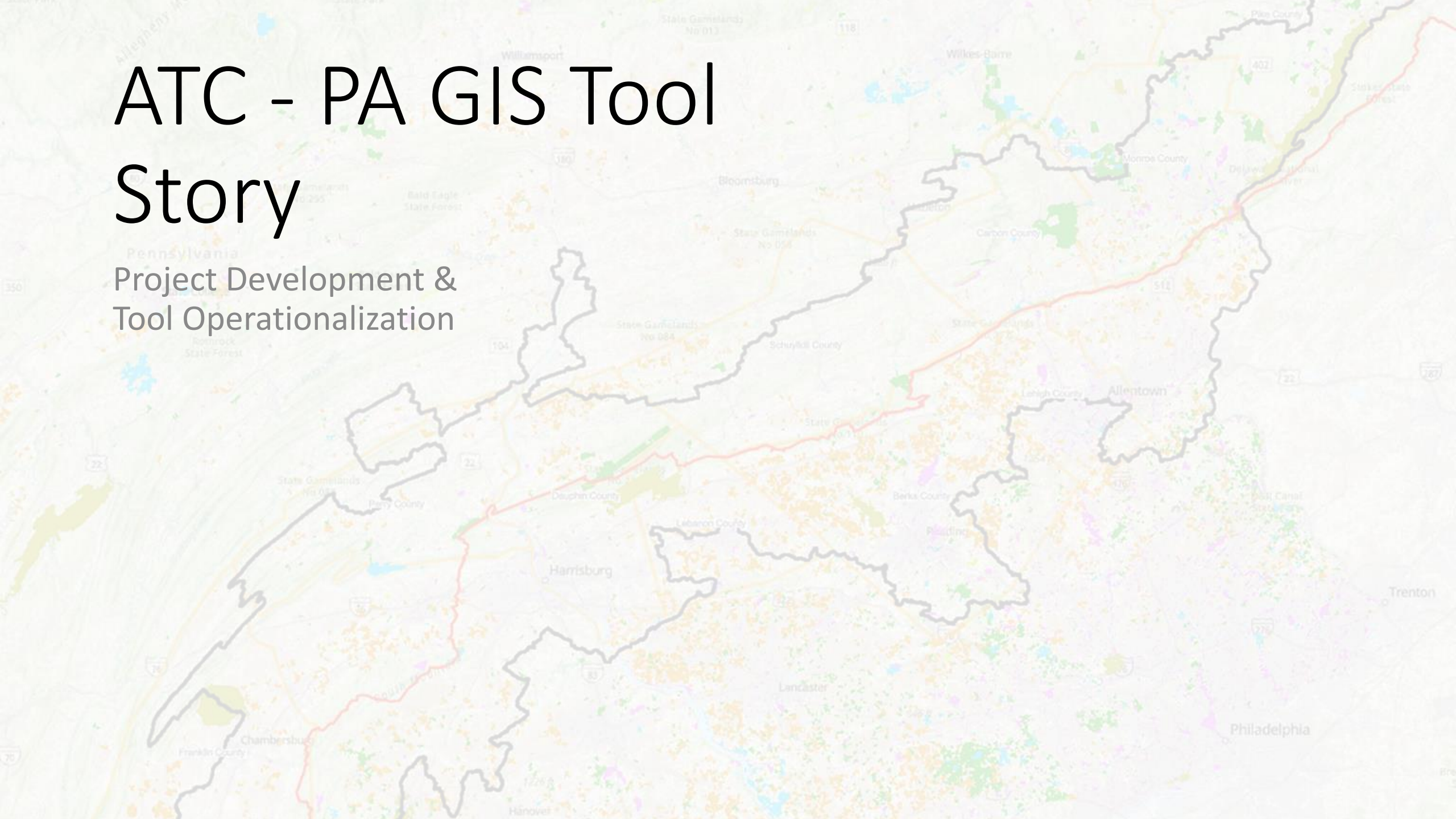
... *ATC or partners* where to invest their limited capacities

Overlaying Landscapes (A.T. Landscape, KRCL, & SM)



ATC - PA GIS Tool Story

Project Development &
Tool Operationalization



Operationalizing Landscape Values

(ANST Fundamental Resources & Values)

The Trail itself

Experience

Views beyond the
corridor

Natural resource
quality & ecological
connectivity

The Empowered
Volunteer

Education

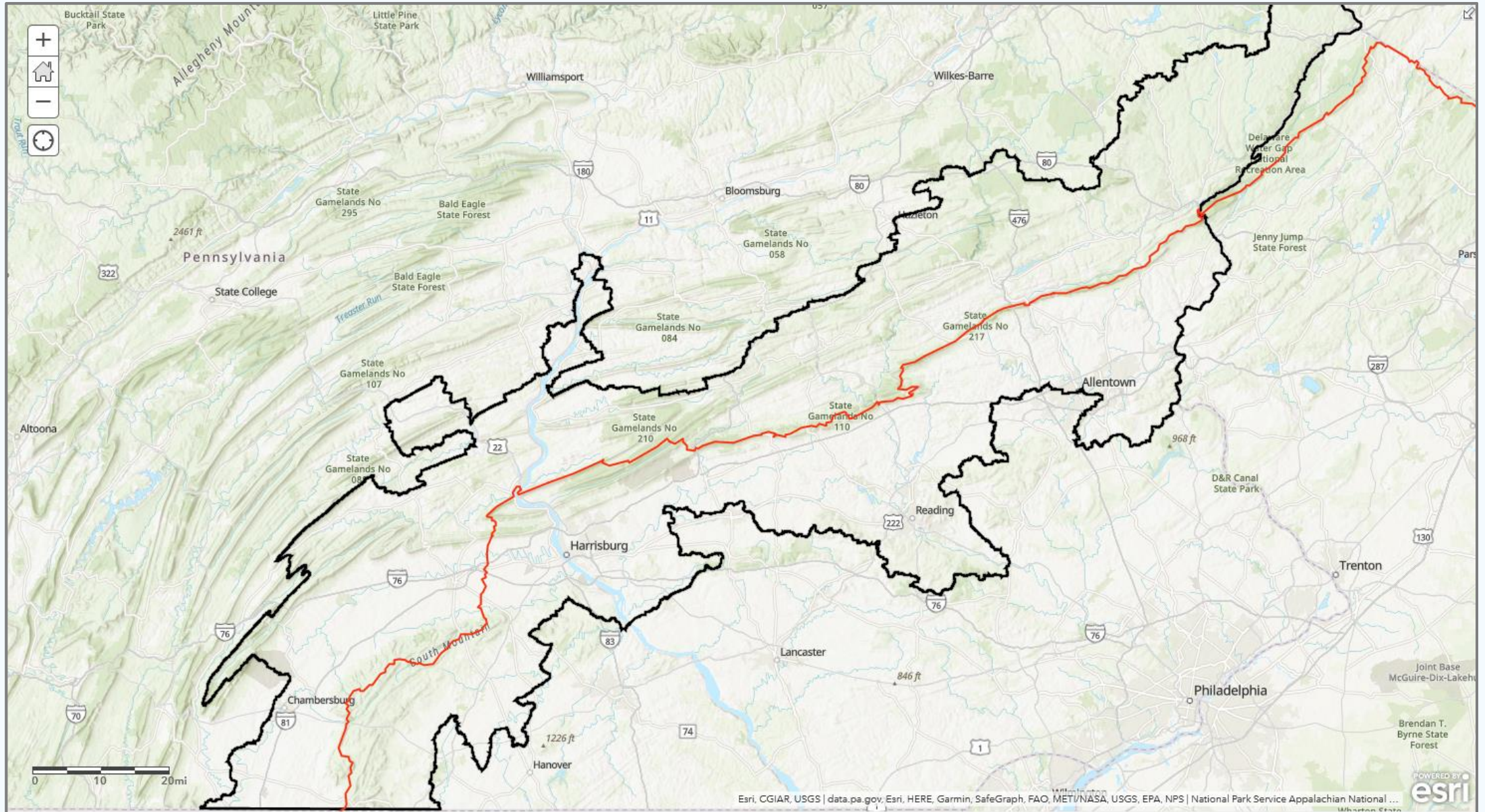
Scenery along the
Treadway

A journey through
American Heritage

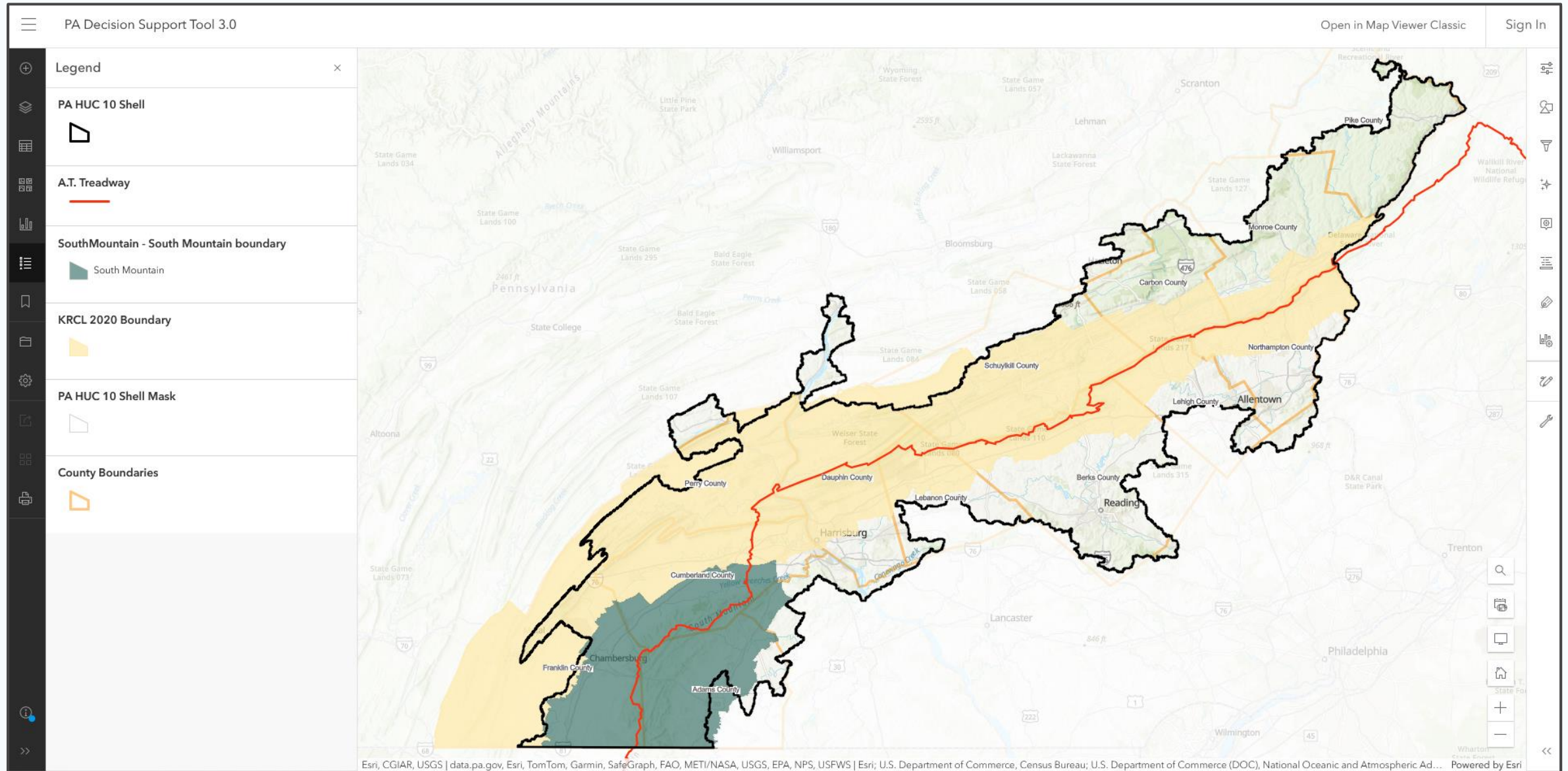
Enduring
Collaborative Spirit



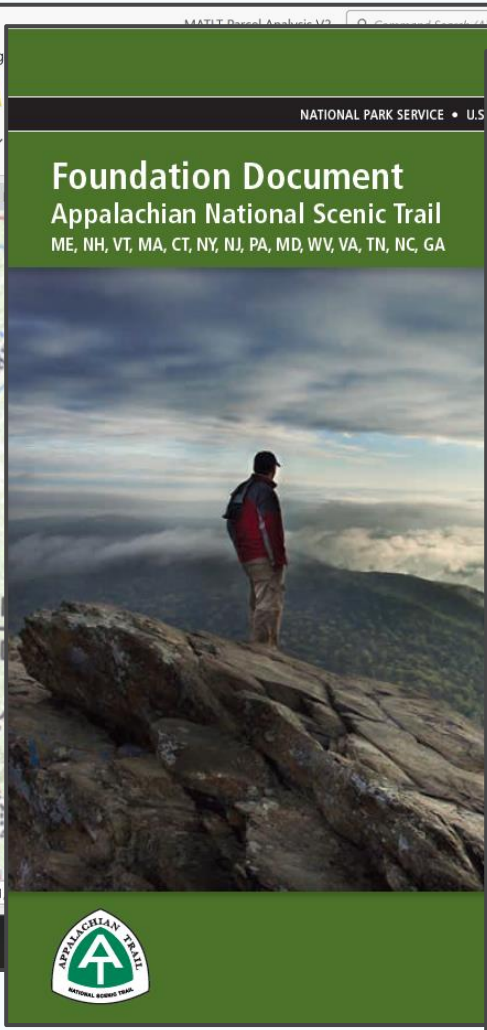
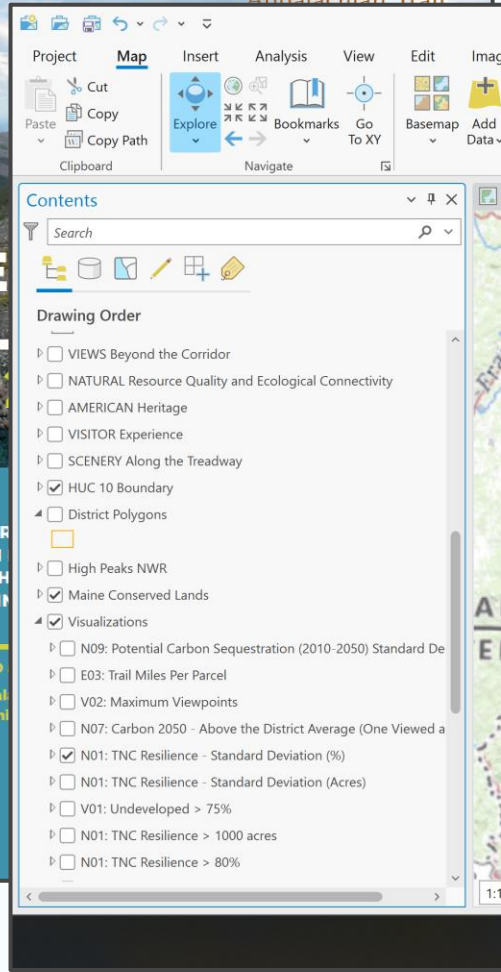
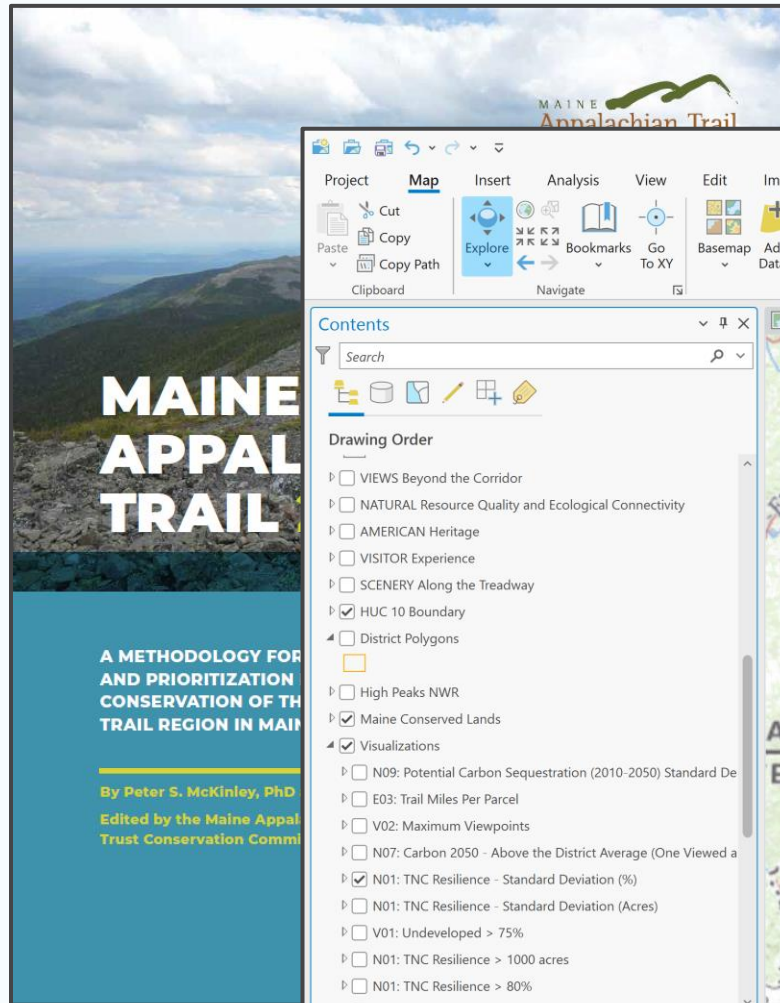
Appalachian Trail (A.T.)



Expanding the Pennsylvania ATLAS IT – Phase 2

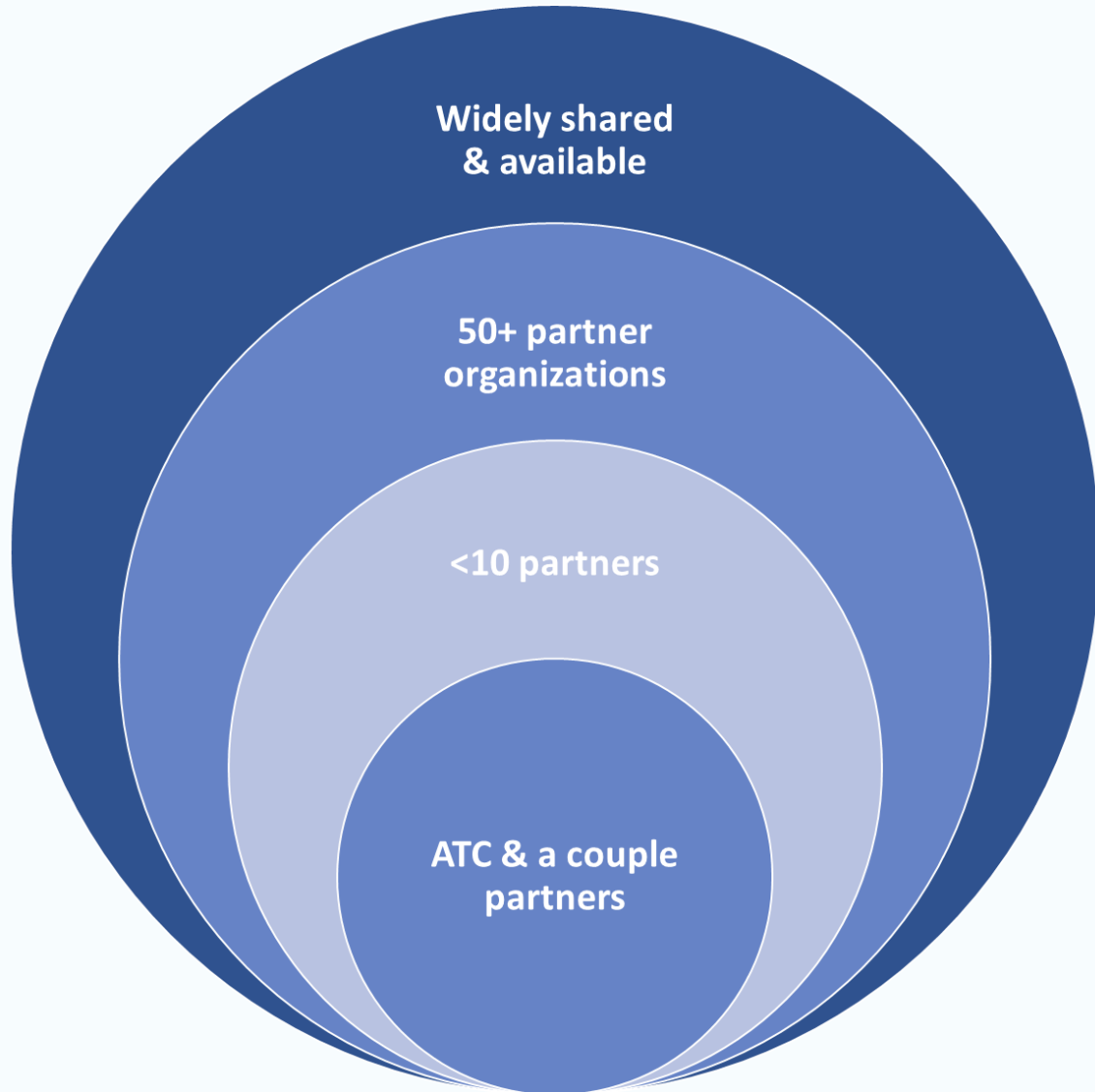


Developing the Pennsylvania ATLAS IT



- ## A.T. Fundamental Values & Resources
- The trail itself
 - The empowered volunteer
 - Enduring collaborative spirit
 - Experience
 - Scenery along the treadway
 - Views beyond the corridor
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Improving the Pennsylvania ATLAS IT – Phase 3

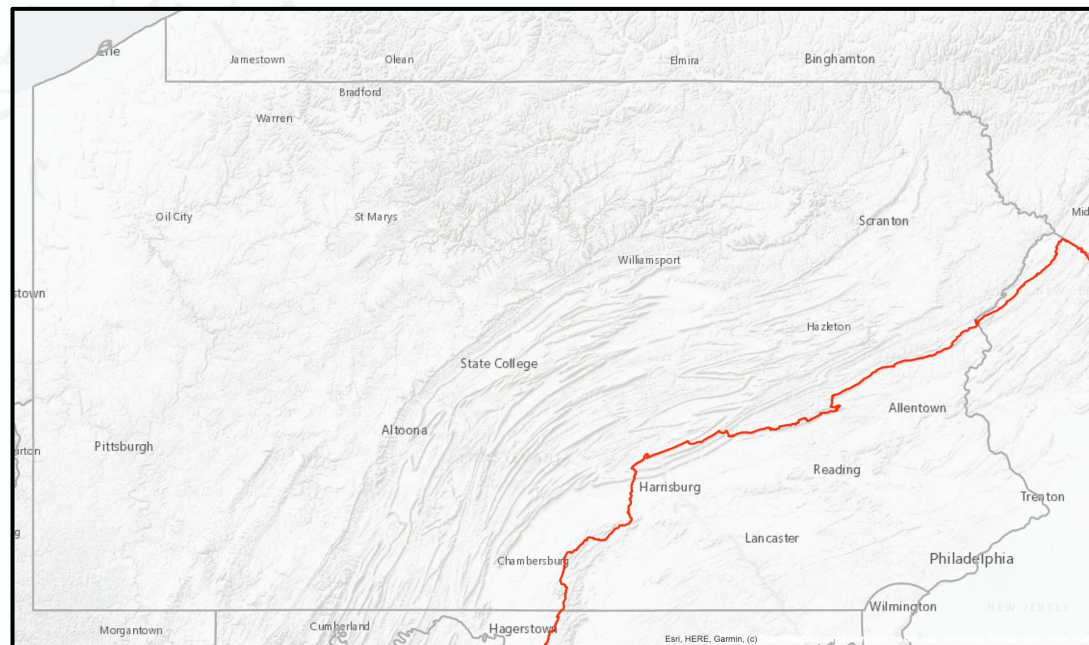




Appalachian Trail Conservancy (ATC)

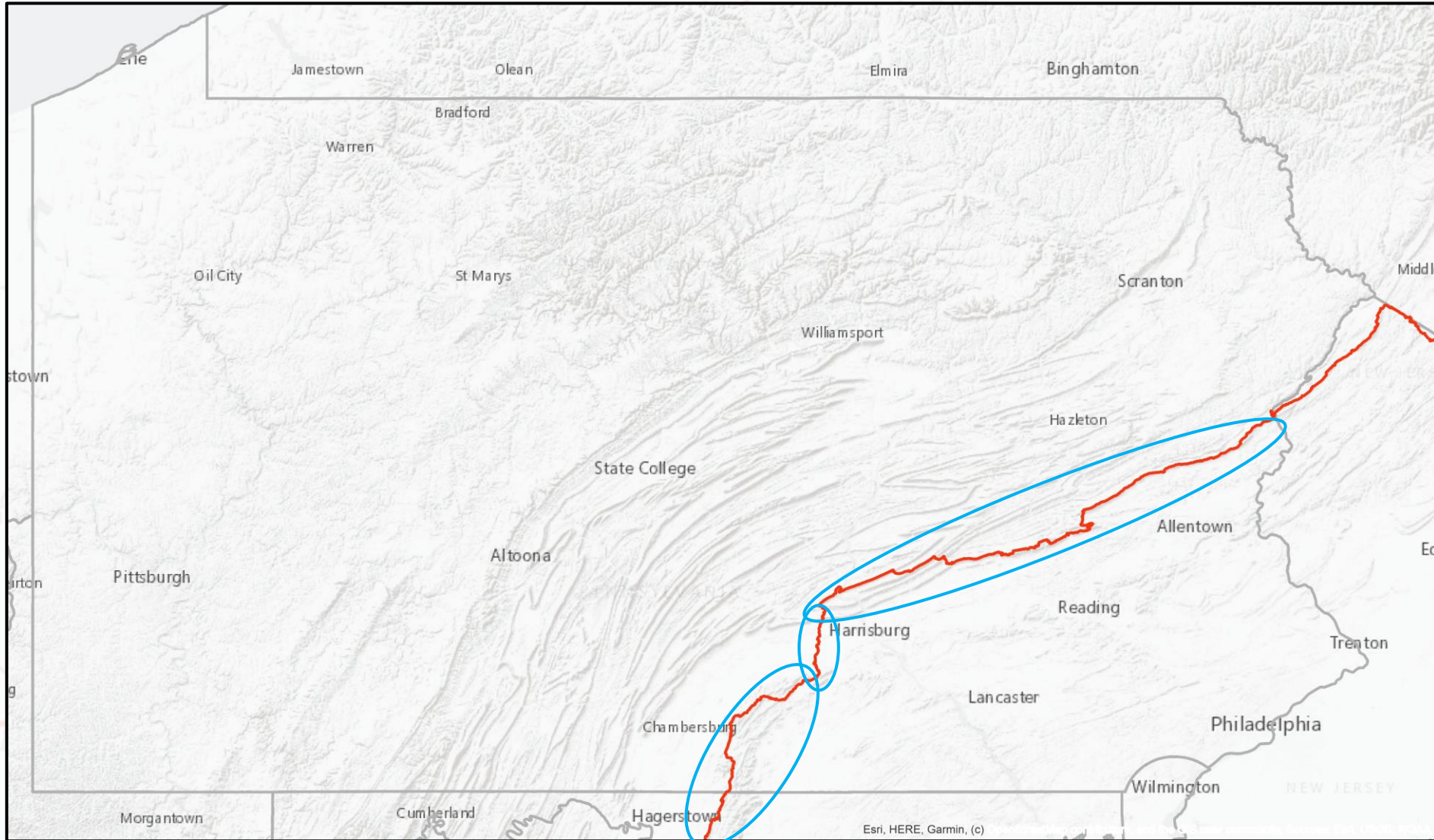
The Appalachian Trail Conservancy's **mission** is to protect, manage, and advocate for the Appalachian National Scenic Trail.

Vision: The A.T. and its surrounding landscape are protected forever for all to enjoy



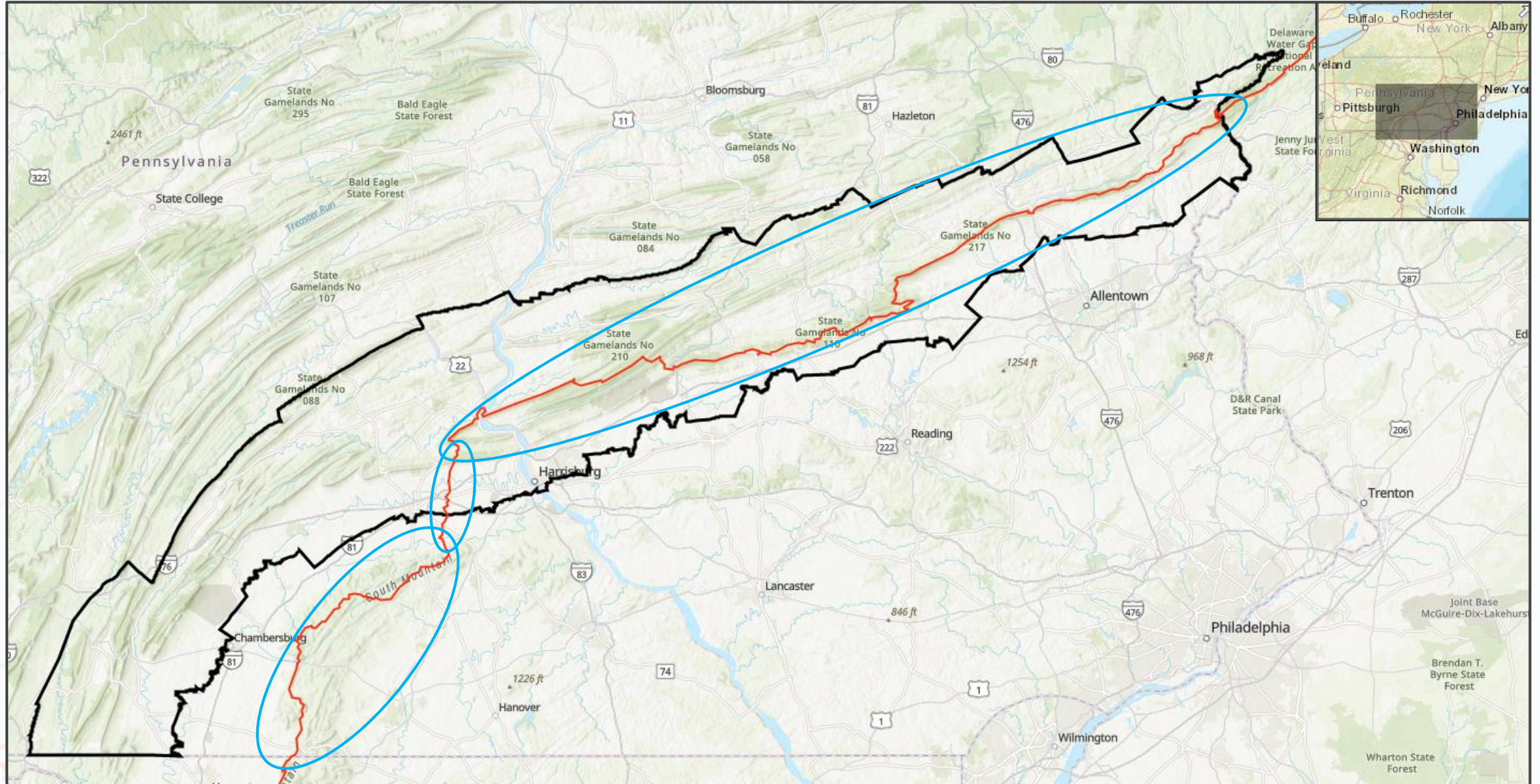


Appalachian Trail (A.T.)



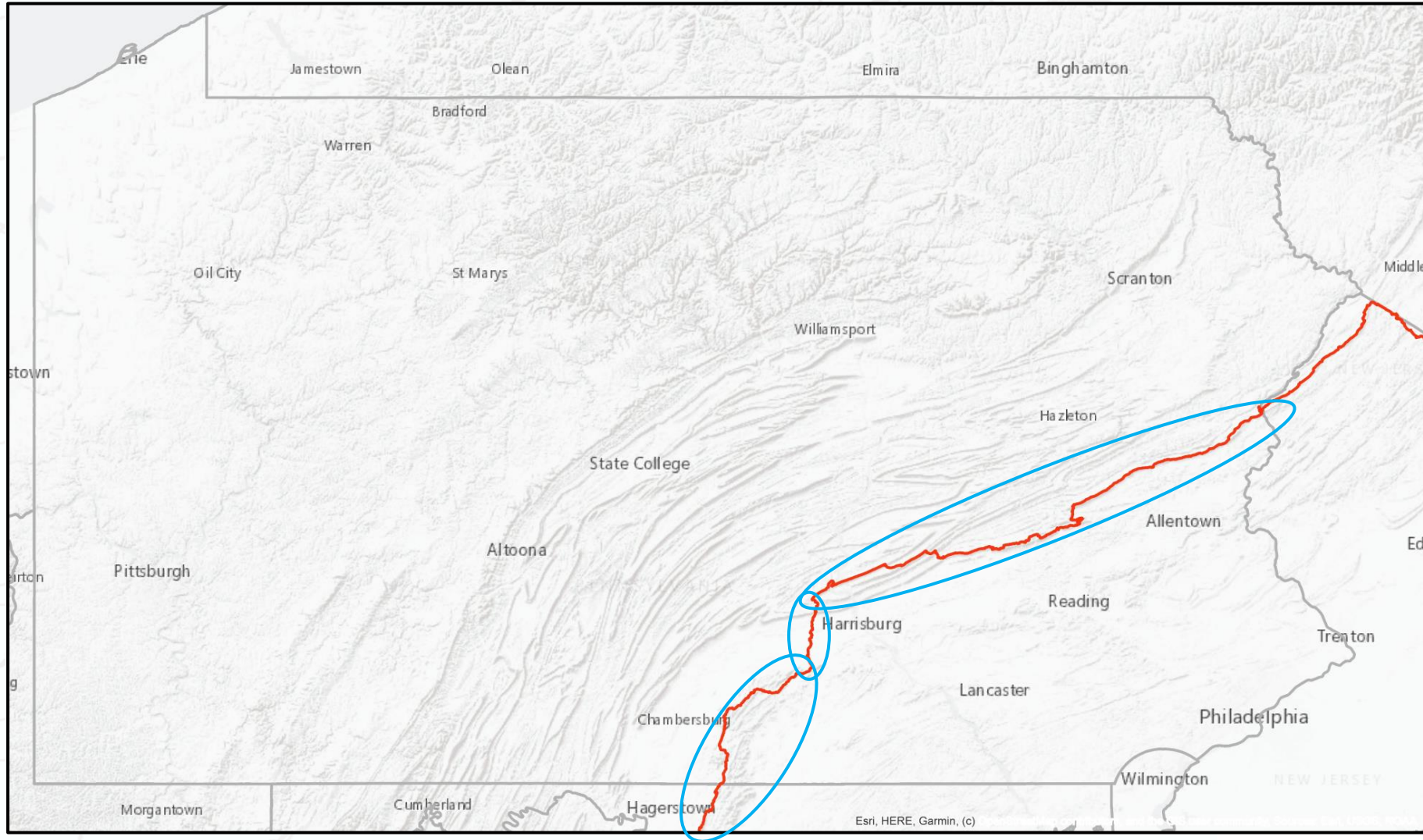


Appalachian Trail (A.T.)



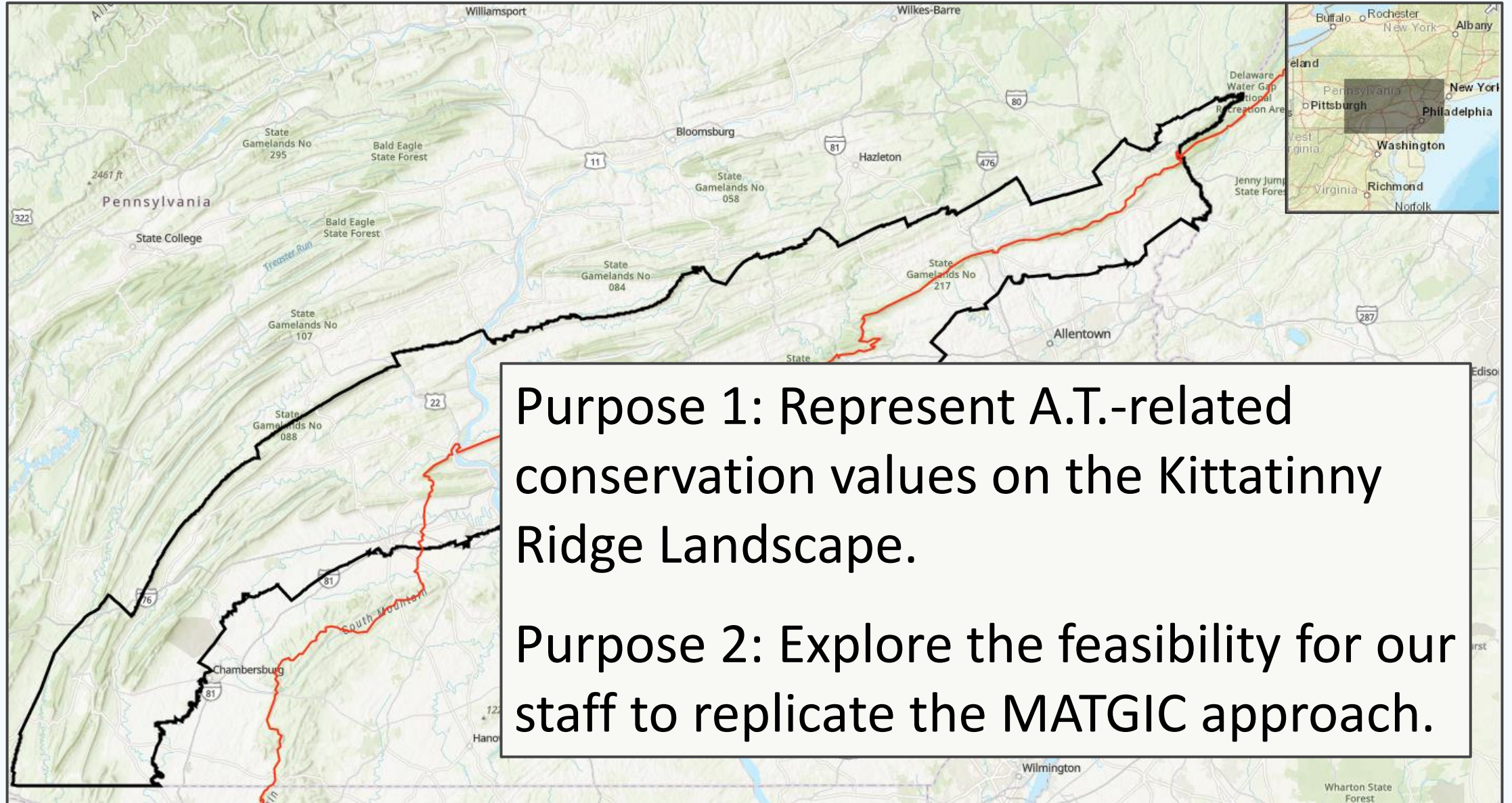


Appalachian Trail Conservancy (ATC)





Appalachian Trail (A.T.)



Purpose 1: Represent A.T.-related conservation values on the Kittatinny Ridge Landscape.

Purpose 2: Explore the feasibility for our staff to replicate the MATGIC approach.

Improving the Pennsylvania ATLAS IT – Phase 3

Phase 2

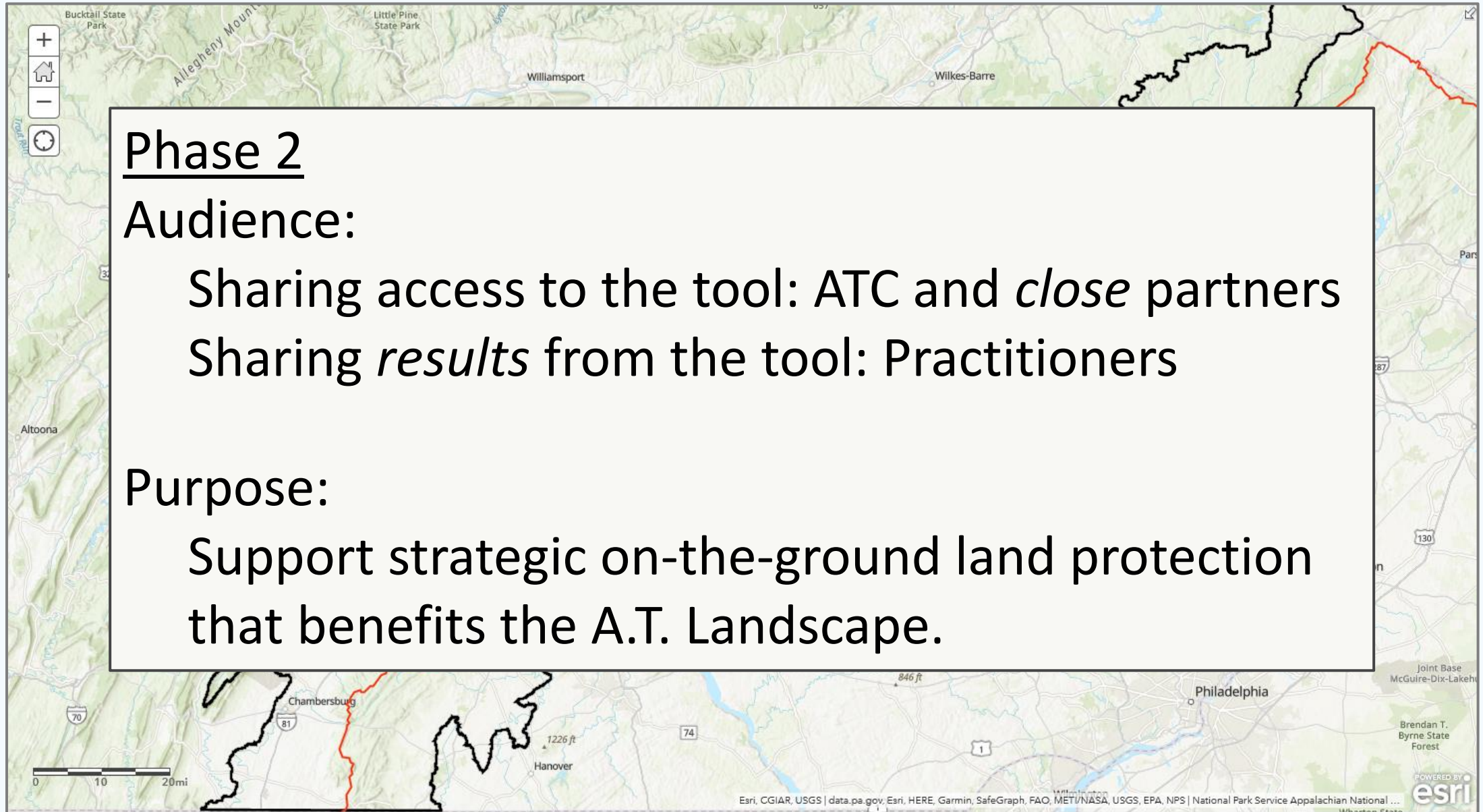
Audience:

Sharing access to the tool: *ATC* and *close* partners

Sharing *results* from the tool: Practitioners

Purpose:

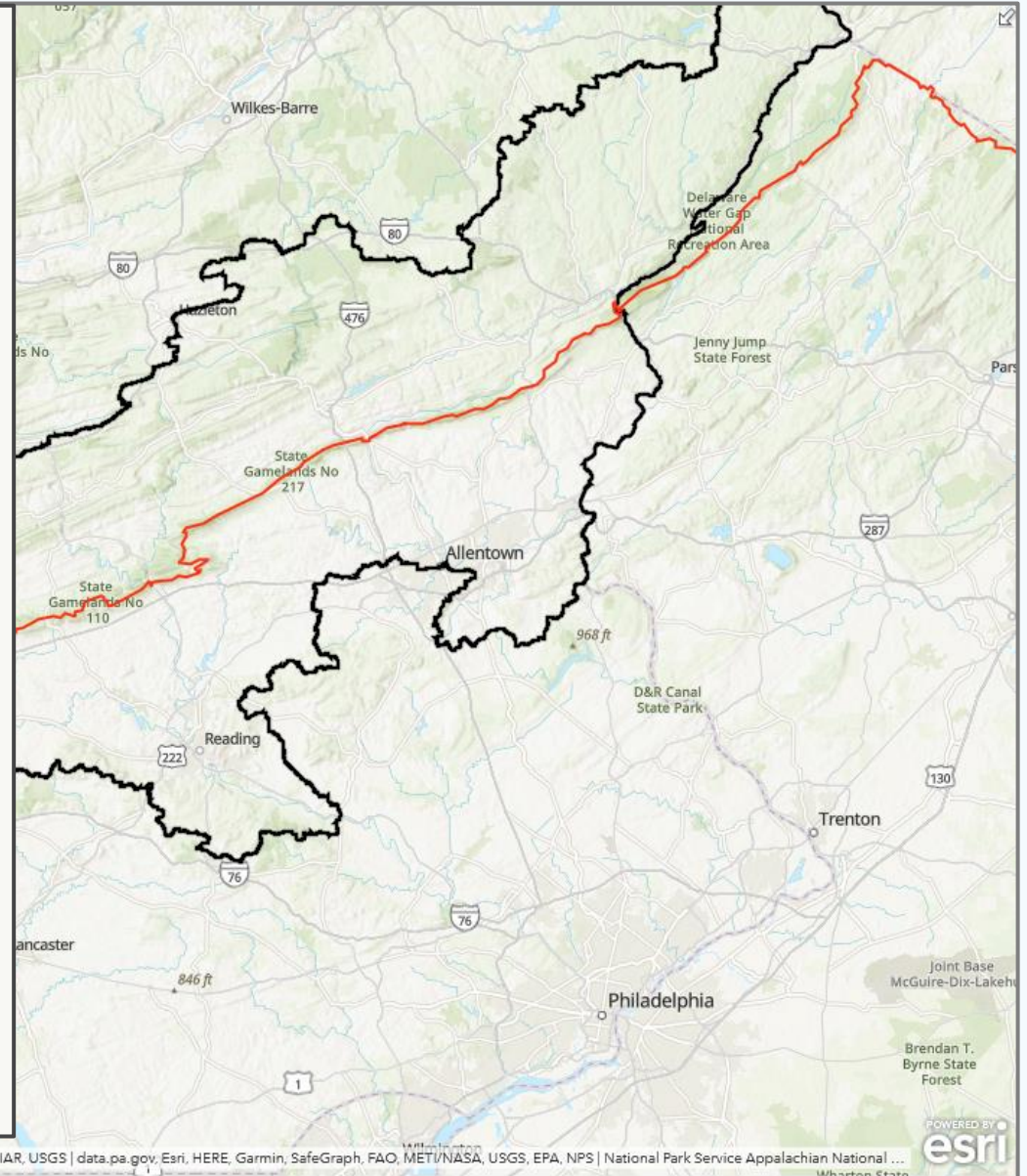
Support strategic on-the-ground land protection that benefits the A.T. Landscape.



PA A.T. Decision Support Tool

Future Phases:

1. Sharing the tool
 - Pennsylvania practitioners
 - ATLP
2. Release the report
 - Share it with participants
3. Continue improving the tool
 - More datasets
 - Improved the interface
 - Better reports
4. Possibly replicate in other States
 - NJ?, MD?, VA?



Context for project

- Katie Hess approached a few ATC staff for help representing ATC's values as a stakeholder of KRLC
 - Tasked to replicated ME A.T. Land Trust's MATGIC tool for the PA context
 - Goal: 1) representation of A.T. values & 2) Exploration in feasibility for our staff to replicate the MATGIC approach.
- Not to bury the lead... we succeed in creating a "light" version of the tool... and this pilot effort is what we will be sharing today
- We then shared out the project with KRLC. Not surprisingly, lots of values parallel each and were already represented in their strategic conservation planning effort... but they did incorporate ATC's *new* viewshed analysis.

Approach to developing the tool


- **Purpose of the tool: help inform land protection decisions**
- Rooted in APPA foundation document
 - North Star for identifying data to incorporate
 - Values included:
 - Values not included:
- Connect with MATLT to daylight their process a bit more and share any lessons learned
 - Minimize any data manipulation
 - Minimize bias
 - Make it more transparent (less of a black box)
 - “keep the decision-making in the hands of the decision maker”
- Internal ATC staff deliberation on data to include
 - Heeding the “start small” mantra

What's the plan?



1st Meeting (today):

- Get to know each other
- Set/clarify expectations
- Understand where ATC is coming from and going...
- Get to know the Tool
- Have a “first reactions” discussion

A map of Pennsylvania with a black outline of a region. A semi-transparent white box is overlaid on the map, containing the text "Quick Break! Be back at 12:42". The map shows various geographical features, including rivers, forests, and cities. The text is centered in the white box.

Quick Break!
Be back at 12:42





Details Basemap

Share Print Measure Find address or place

Details Basemap

About Content Legend

Legend

A.T. Centerline

KRCL 2020 Boundary

Project County Boundaries

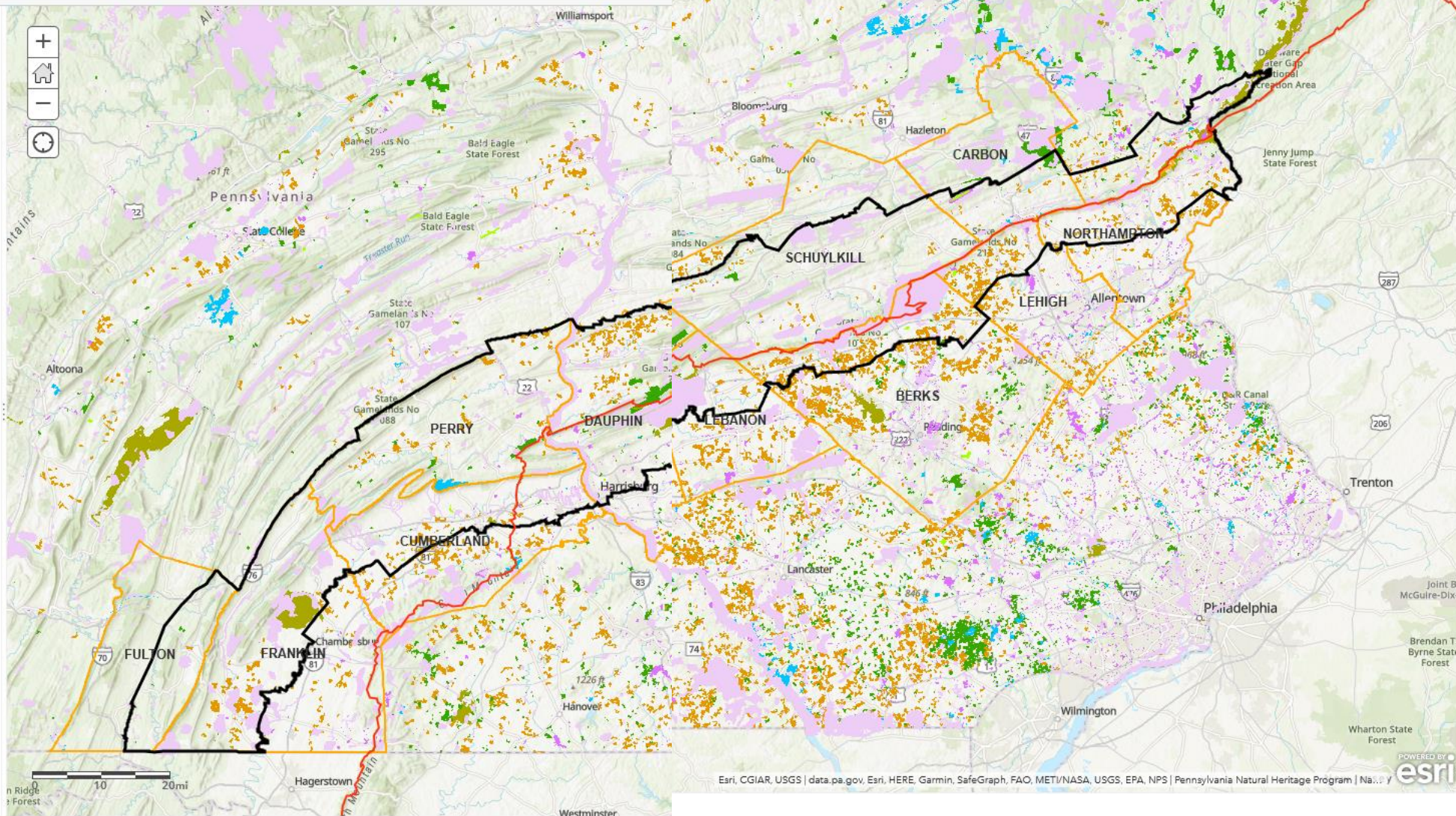
Natural Heritage Areas: Core Habitat (PNHP)

Natural Heritage Areas: Core Habitat

PA_Conserved_Lands

PA Conserved Lands

- Conservation Easement
- Farm Easement
- Federal
- Local
- Private
- State

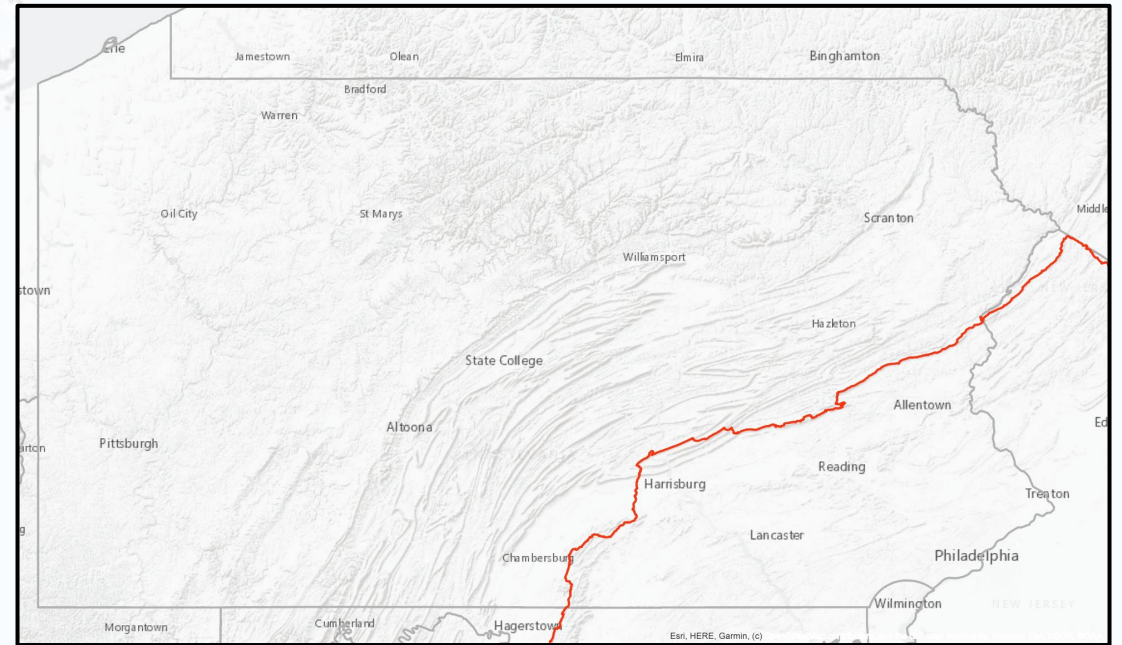




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Vision: The A.T. and its surrounding landscape are protected forever for all to enjoy



Why are we here today... and who is the “we”?

Project Purpose:

This decision support tool strives to translate landscape-scale conservation values to data-informed decisions-making and strategy development, for on-the-ground land protection *and* other conservation-related needs.

Project Area:

The A.T. Landscape (HUC10), through Pennsylvania.

GIS Advisory Teams Role:

Engage with the tool, think critically, and provide constructive feedback that could help inform a better tool in future iterations.

Why are we here today... and who is the “we”?

ATC Staff:

Katie Allen, Director of Conservation

Josh Foster, GIS Specialist

Katie Hess, Director of PA Landscape Conservation

Max Olsen, Landscape Program Assistant

Advisory Team:

Irina Beal, WeConservePA

Dr. Scott Drzyzga, Shippensburg Uni.

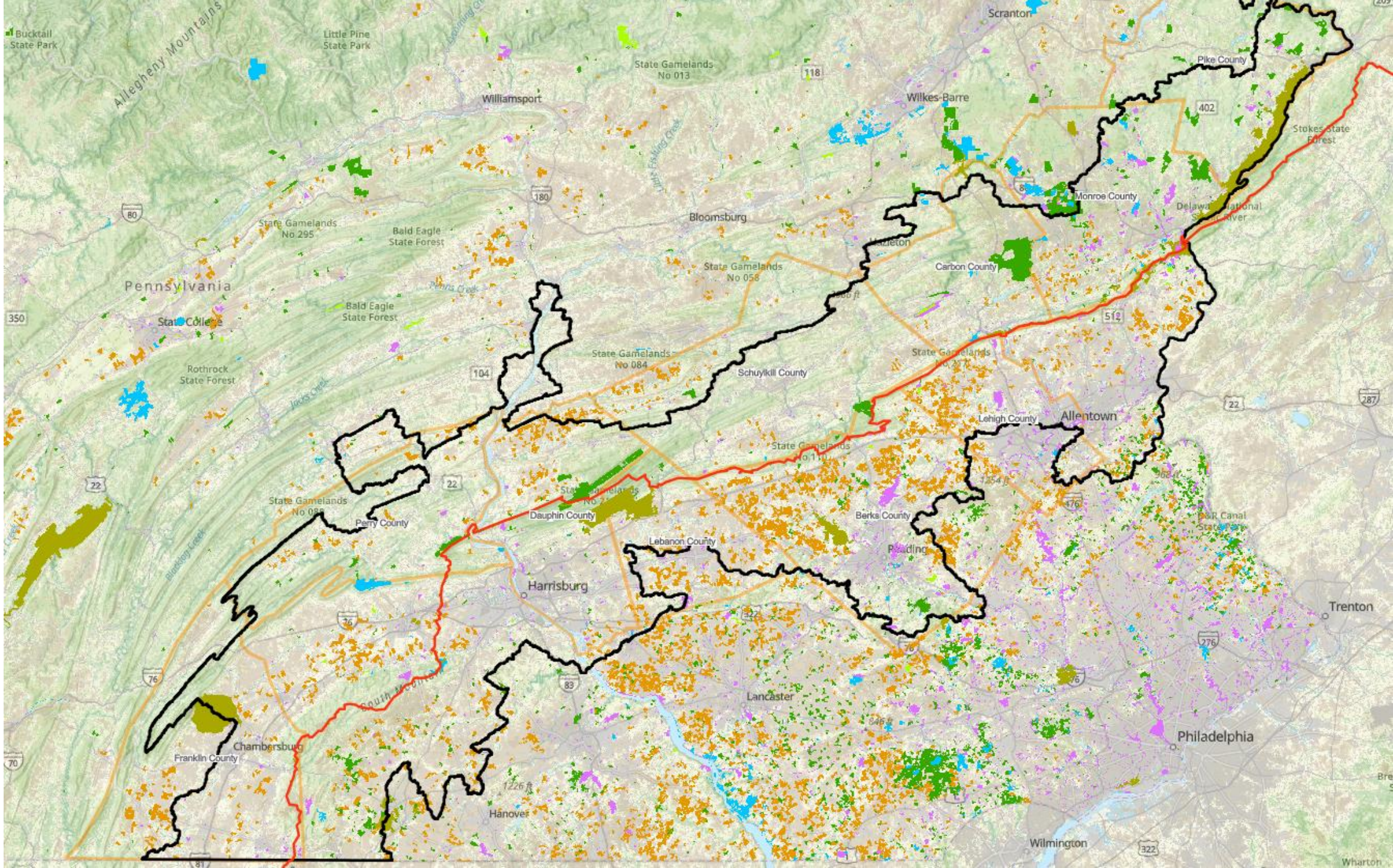
Mitchel Hannon, Trust for Public Land

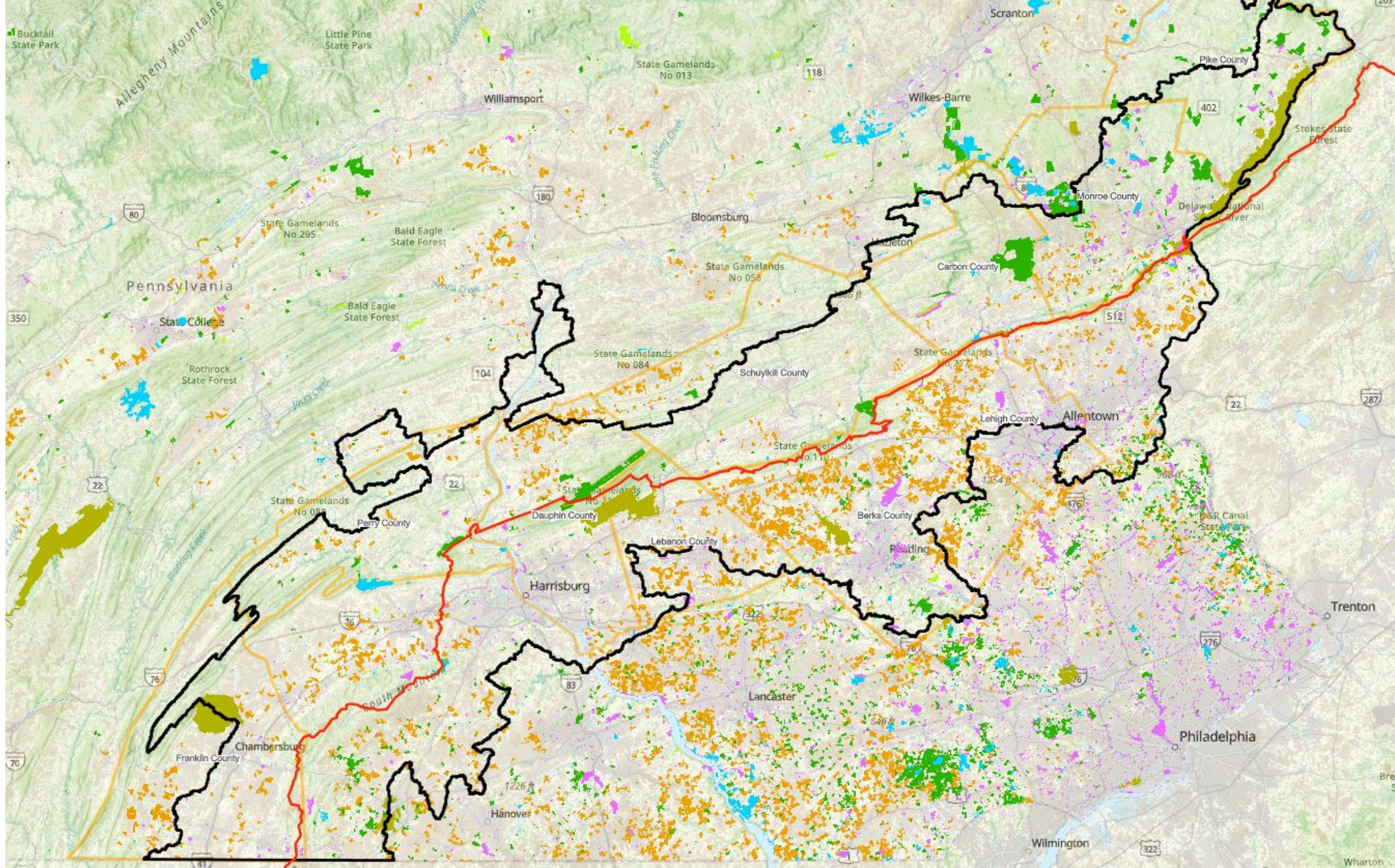
Neil Jordan, Open Space Institute

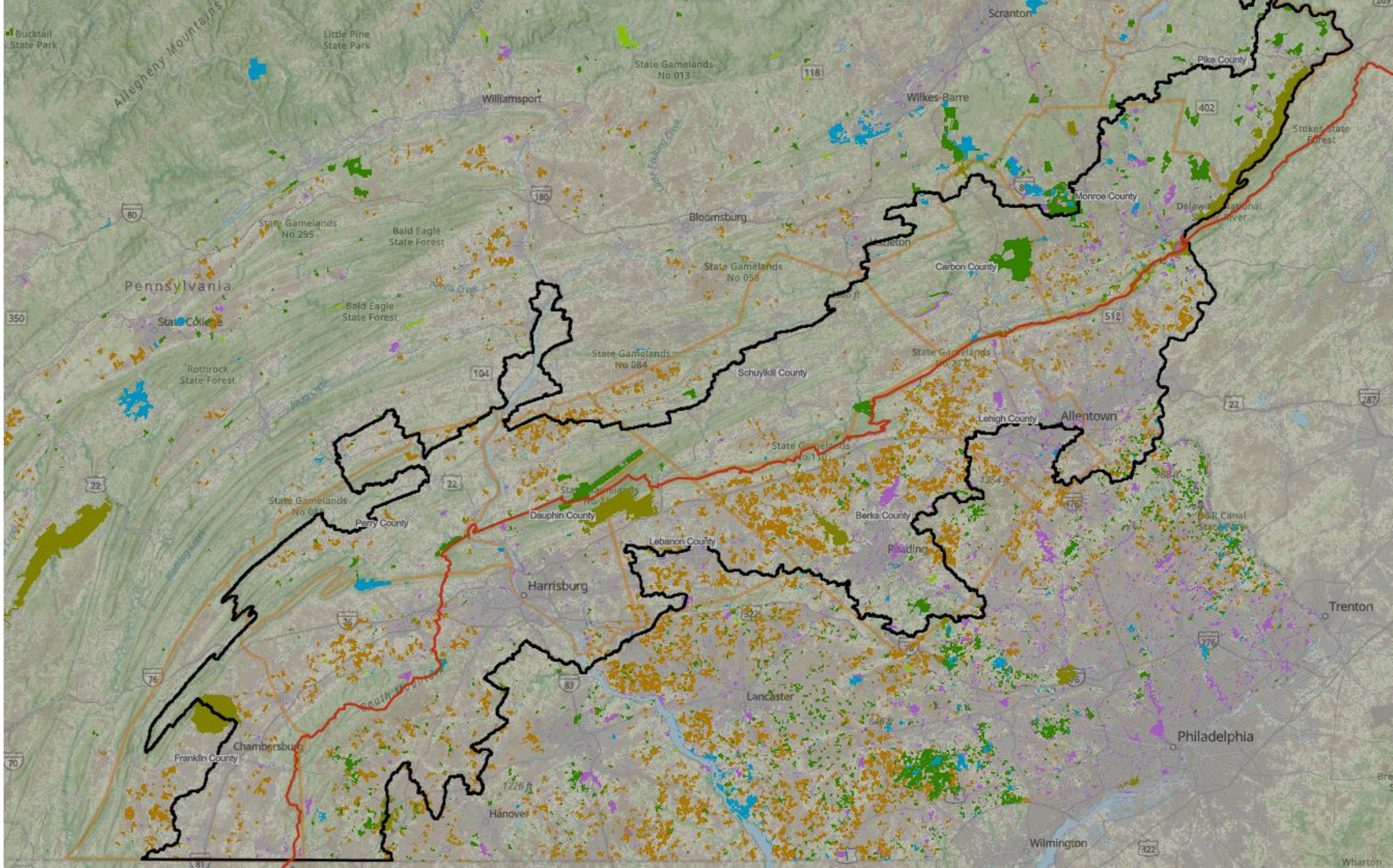
Dr. Peter McKinley, The Wilderness Society

Matt Robinson, National Park Service – APPA


Cameron Weiser, Central PA Conservancy















Legend

A.T. Treadway







PA HUC 10 Shell


PA Conserved Lands
 PA Conserved Lands

-  Conservation Easement
-  Farm Easement
-  Federal
-  Local
-  Private
-  State

County Boundaries


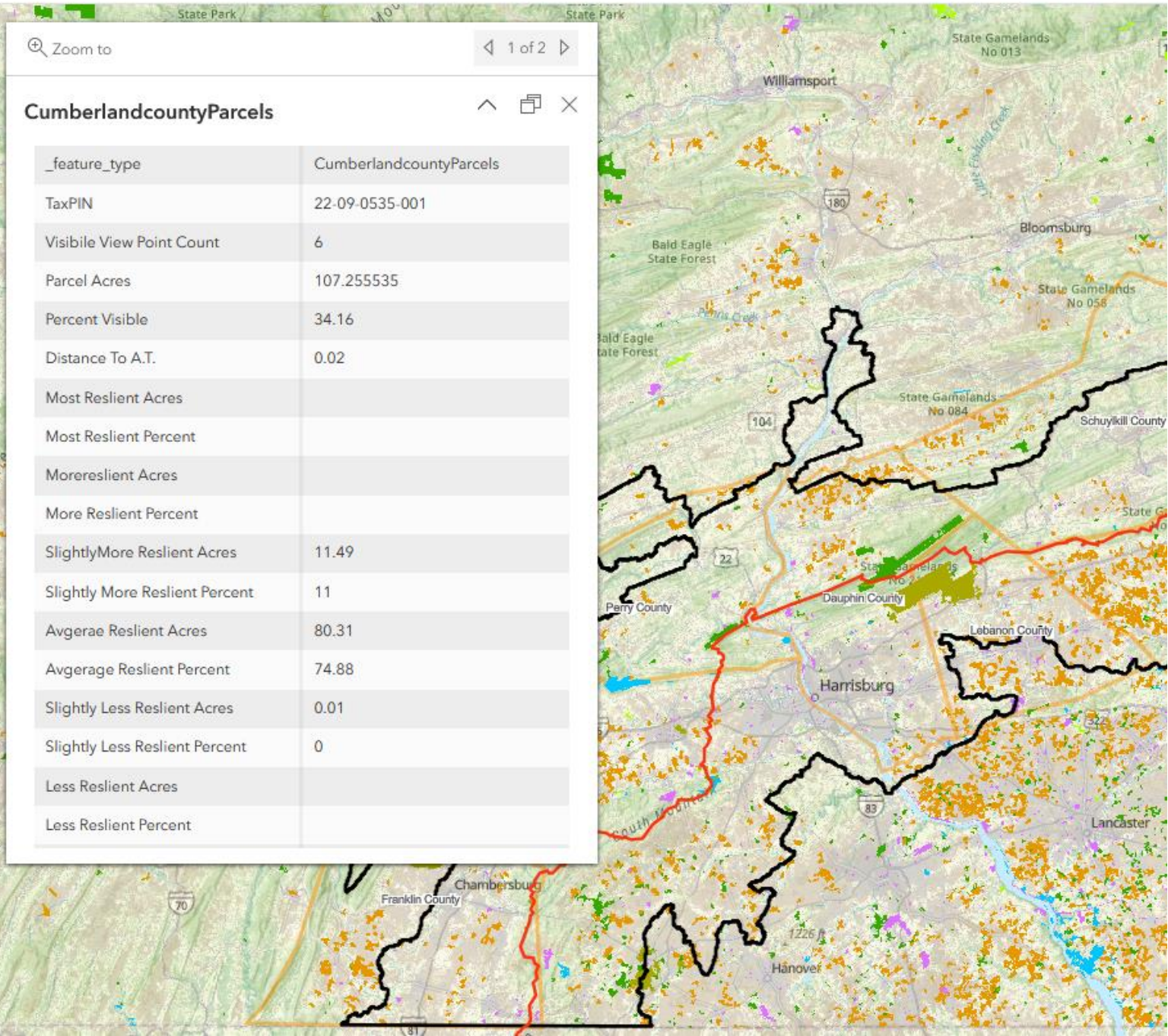
TNC Resilient sites
 Resilient Sites

-  Most resilient
-  More resilient
-  Slightly more resilient
-  Priority coastal marsh migration space
-  Average/median resilient (terrestrial or coastal)

Zoom to 1 of 2

CumberlandcountyParcels

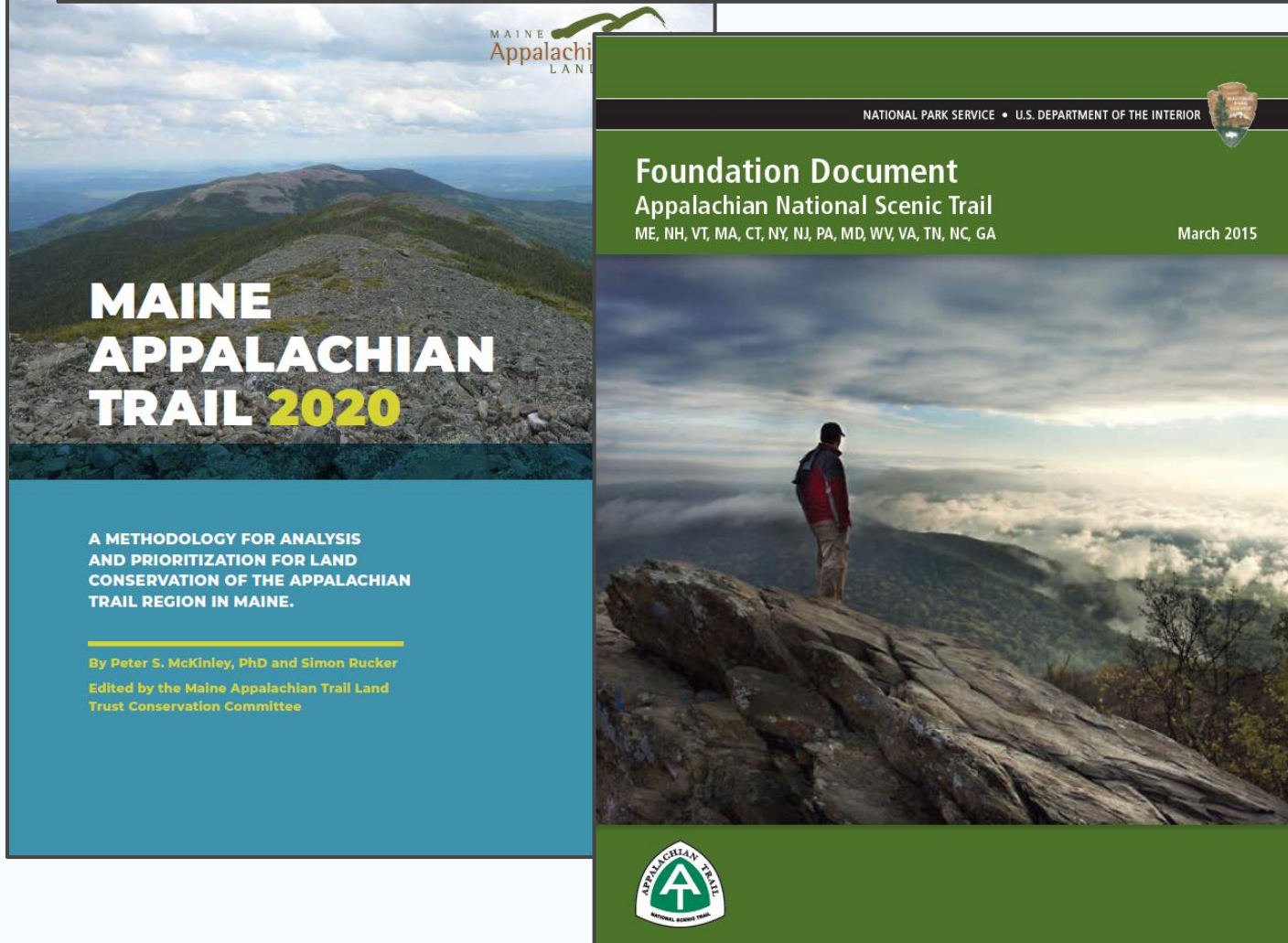
_feature_type	CumberlandcountyParcels
TaxPIN	22-09-0535-001
Visible View Point Count	6
Parcel Acres	107.255535
Percent Visible	34.16
Distance To A.T.	0.02
Most Resilient Acres	
Most Resilient Percent	
Moresresilient Acres	
More Resilient Percent	
SlightlyMore Resilient Acres	11.49
Slightly More Resilient Percent	11
Avgerae Resilient Acres	80.31
Average Resilient Percent	74.88
Slightly Less Resilient Acres	0.01
Slightly Less Resilient Percent	0
Less Resilient Acres	
Less Resilient Percent	





Approach to developing the tool

Decision Support Tool: To help inform land protection decisions.



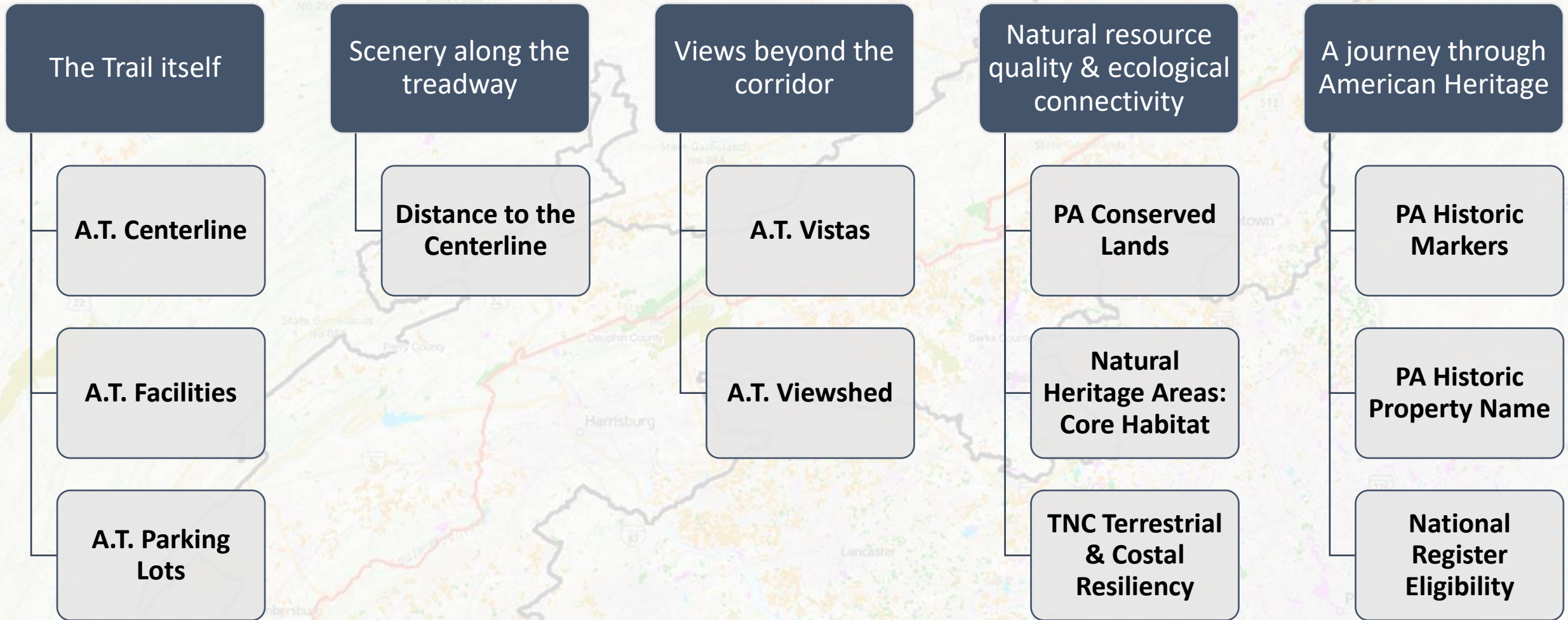
MAINE
Appalachian Trail
LAND TRUST



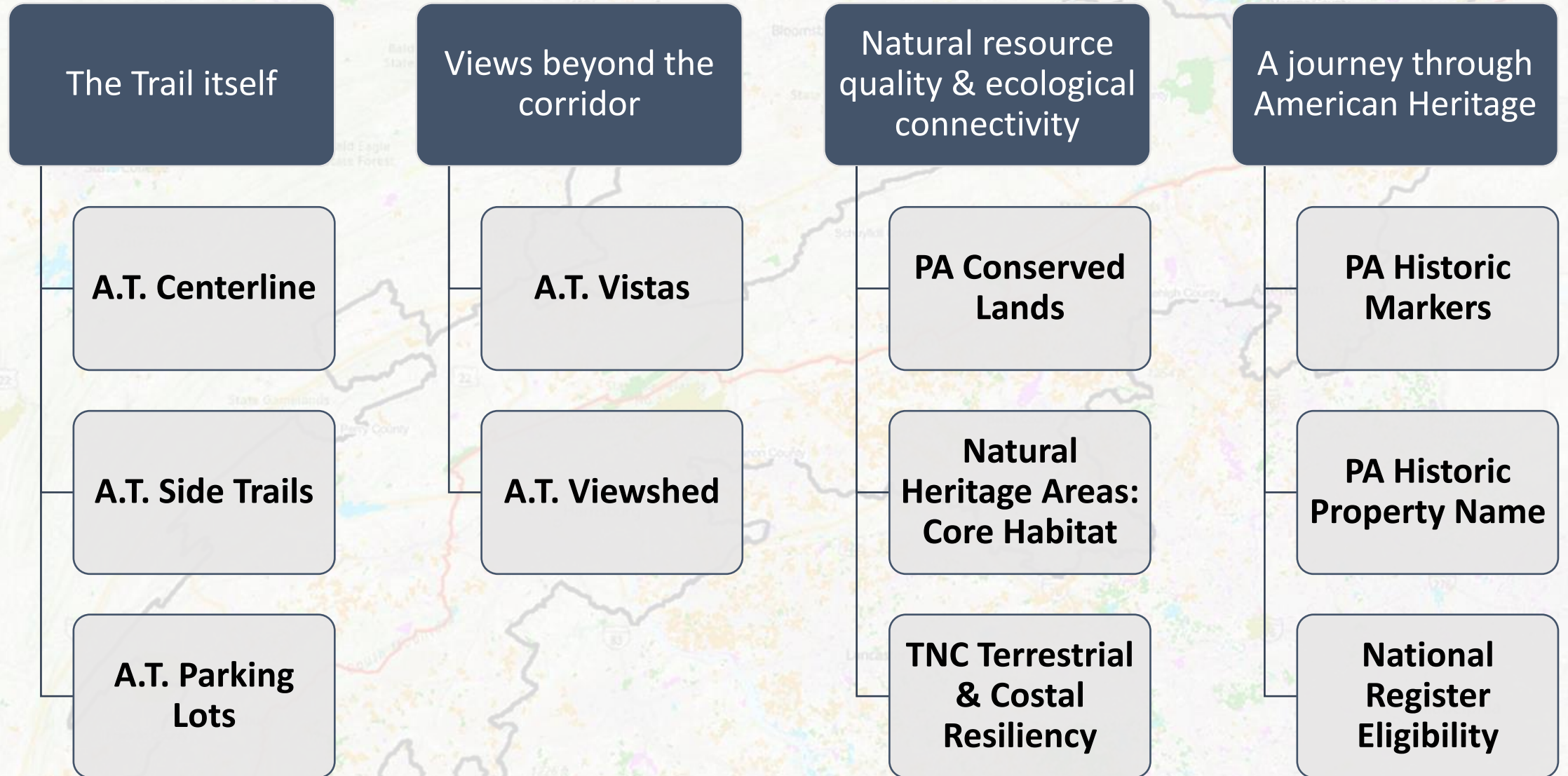
Operationalizing Conservation Values

- Views beyond the corridor
- Historic/Cultural resources
- Natural env quality
- Etc....
- Then corresponding data sets
- Background of this slide could be a screenshot of the tool
- The trail itself
- The empowered volunteer
- Enduring collaborative spirit
- Experience
- Scenery along the treadway
- Views beyond the corridor
- Natural resources quality and ecological connectivity
- A journey through American Heritage

Operationalizing Conservation Values



Operationalizing Conservation Values



What's next?

Next Steps

- Improving the pilot
- Shifting the analysis from the Kittatinny Ridge to the A.T. Landscape
- Convening an Advisory Team
- Developing a Report
- Sharing w/ the A.T. Landscape Partnership (Conservation WG)

Potential - More than just land protection

It could help inform...

- Ecological restoration
- Programming outreach
- Partnership/coalition building
- Volunteer recruitment
- Project tracking
- Facilities development

... ATC or partners where to invest their limited capacities

Lessons Learned

Lessons

- Intentionality is important
- It's a decision *support* tool
- We aren't reinventing the wheel
- State differences are noticeable
- Tangible vs intangible values
- Not all data is created equal

Recent Changes:

- Shifted and expanded analysis to A.T. Landscape
- Calculated distance to Trail
- Added viewshed "sources"
- Added all A.T. Facilities
- Added Development

What's next?

Data Limitations

- Ongoing Improvements:
 - Viewpoint counts
 - Distance to trail
 - A.T. Shelters
 - Adjacent conserved land...more detail
- Environmental Justice
- Development Risk
- Agricultural lands

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