

# Healthy Landscapes Goal Team Steering Committee

GOAL: Conserve, protect, restore and enhance landscapes of ecological, economic, recreational and cultural value to improve water quality, provide habitat for wildlife and increase resilience.

## Healthy Landscapes

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Ken Hyer, USGS  
Peter Claggett, USGS

## Forestry

Anne Hairston-Strang,  
MD-DNR  
Nanci Sonti, USFS  
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## Adaptation

Natalie Snider, MD-DNR  
Ben McFarlane, HRPDC  
Julie Reichert-Nguyen, NOAA

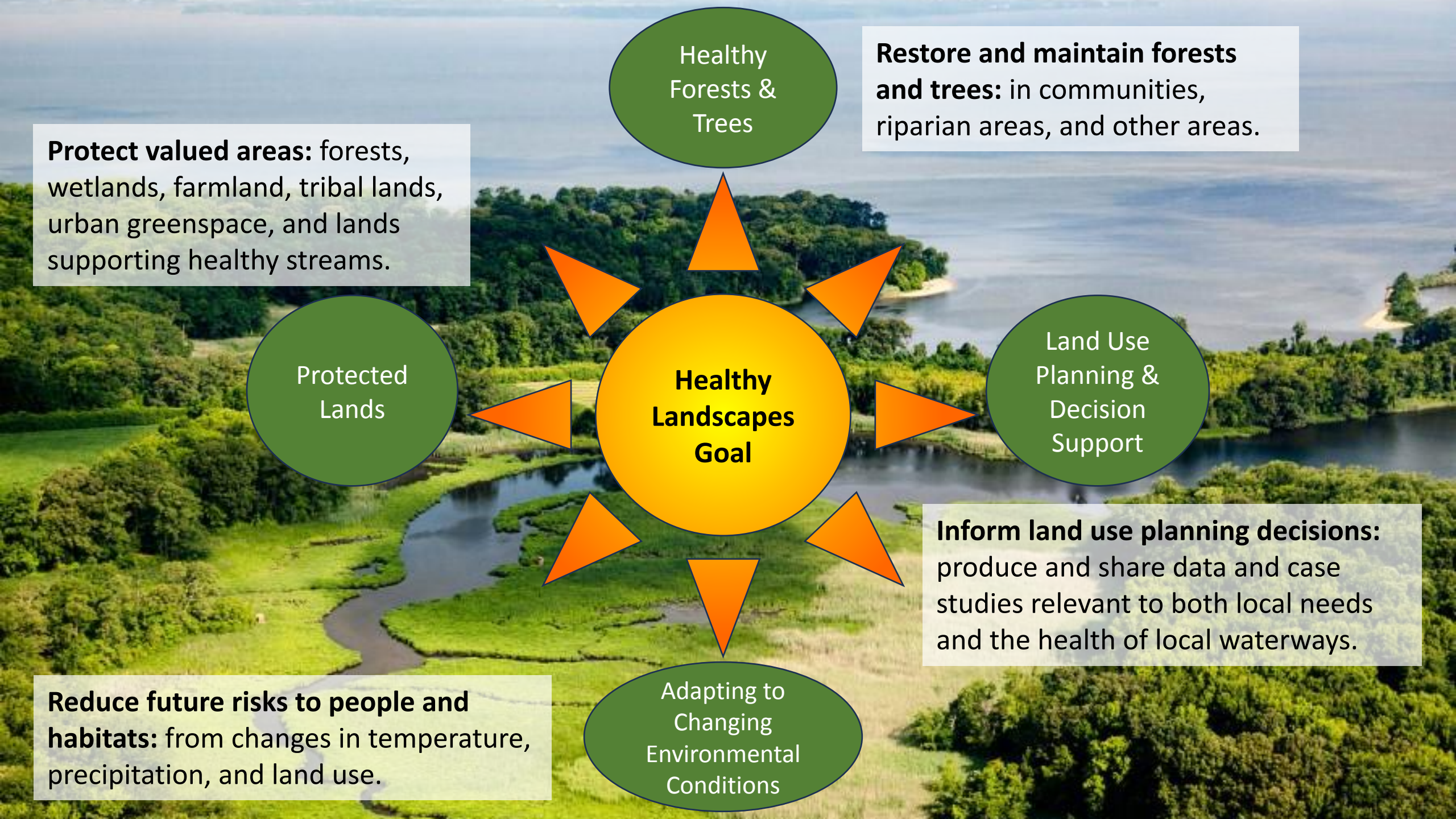
## Land Use

Debbie Herr Cornwell, MDP  
Rosa Hance, Choose Clean Water  
Jackie Pickford, USGS

## Protected Lands

Jeff Lerner, EPA  
Sophie Waterman, USGS





**Protect valued areas:** forests, wetlands, farmland, tribal lands, urban greenspace, and lands supporting healthy streams.



**Reduce future risks to people and habitats:** from changes in temperature, precipitation, and land use.



**Restore and maintain forests and trees:** in communities, riparian areas, and other areas.

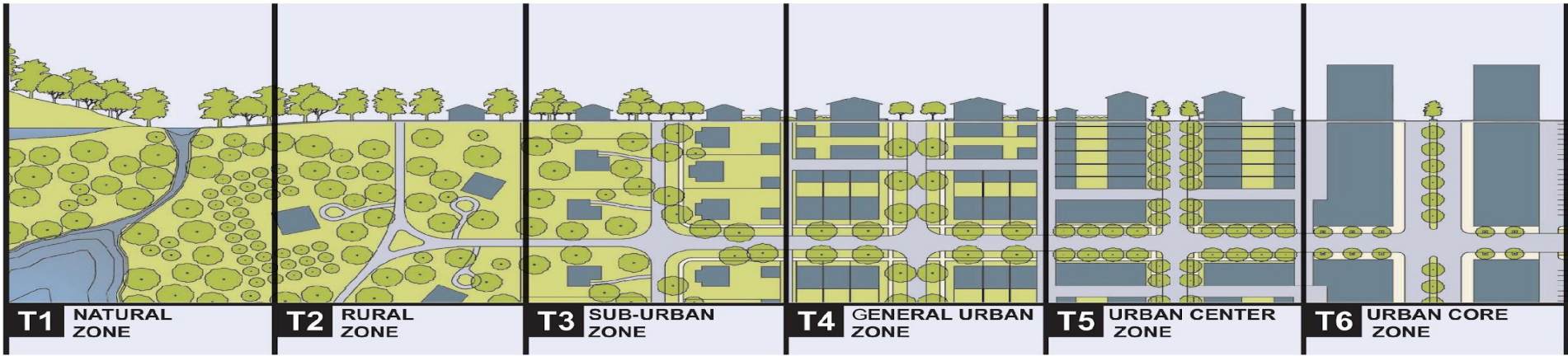


**Inform land use planning decisions:** produce and share data and case studies relevant to both local needs and the health of local waterways.





# Complementary Nature of Our Outcomes

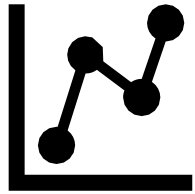


Planning	<ul style="list-style-type: none"> <li>Very-low density zoning</li> <li>Conservation zoning</li> <li>Park planning</li> <li>Recreation trails</li> </ul>	<ul style="list-style-type: none"> <li>Infill/redevelopment</li> <li>Cluster housing</li> </ul>	<ul style="list-style-type: none"> <li>Walkability</li> <li>Transit-oriented development</li> <li>Redevelopment</li> <li>Mixed use</li> </ul>
Resiliency	<ul style="list-style-type: none"> <li>Living shorelines</li> <li>Floodplain connectivity</li> <li>Wind turbines, solar farms</li> <li>Silviculture</li> </ul>	<ul style="list-style-type: none"> <li>Low-impact development</li> <li>Soil amendments</li> <li>Natural/native landscaping</li> <li>Connected greenways</li> <li>Community and distributed solar</li> </ul>	<ul style="list-style-type: none"> <li>Green roofs</li> <li>Pervious pavement</li> <li>Detention vaults</li> <li>Solar roofs</li> <li>Street trees</li> </ul>
Conservation	<ul style="list-style-type: none"> <li>Working farms and forests</li> <li>Source-water protection</li> <li>Wildlife habitat protection and connectivity</li> </ul>	<ul style="list-style-type: none"> <li>Floodplain and wetland protection</li> <li>Community parks and recreation areas</li> <li>Trail networks</li> </ul>	<ul style="list-style-type: none"> <li>Greenspace conservation</li> <li>Trail networks</li> </ul>
Forests	<ul style="list-style-type: none"> <li>Conservation of forest habitats</li> <li>Conservation of working lands</li> <li>Sustainable forest management</li> <li>Riparian forest buffers</li> </ul>	<ul style="list-style-type: none"> <li>Street trees</li> <li>Riparian forest buffers</li> <li>Reforestation of plantable areas</li> <li>Controlling pests, disease, and invasives</li> </ul>	<ul style="list-style-type: none"> <li>Street trees</li> <li>Controlling pests, disease, and invasives</li> </ul>

\* Image from the Center for Applied Transect Studies ([https://transect.org/rural\\_img.html](https://transect.org/rural_img.html))

# What is the Land Use Decision Support (LUDS) Outcome?

Developing and delivering relevant land use information to support local planning and decision-making.



**Develop the  
data**

Actionable land use  
information



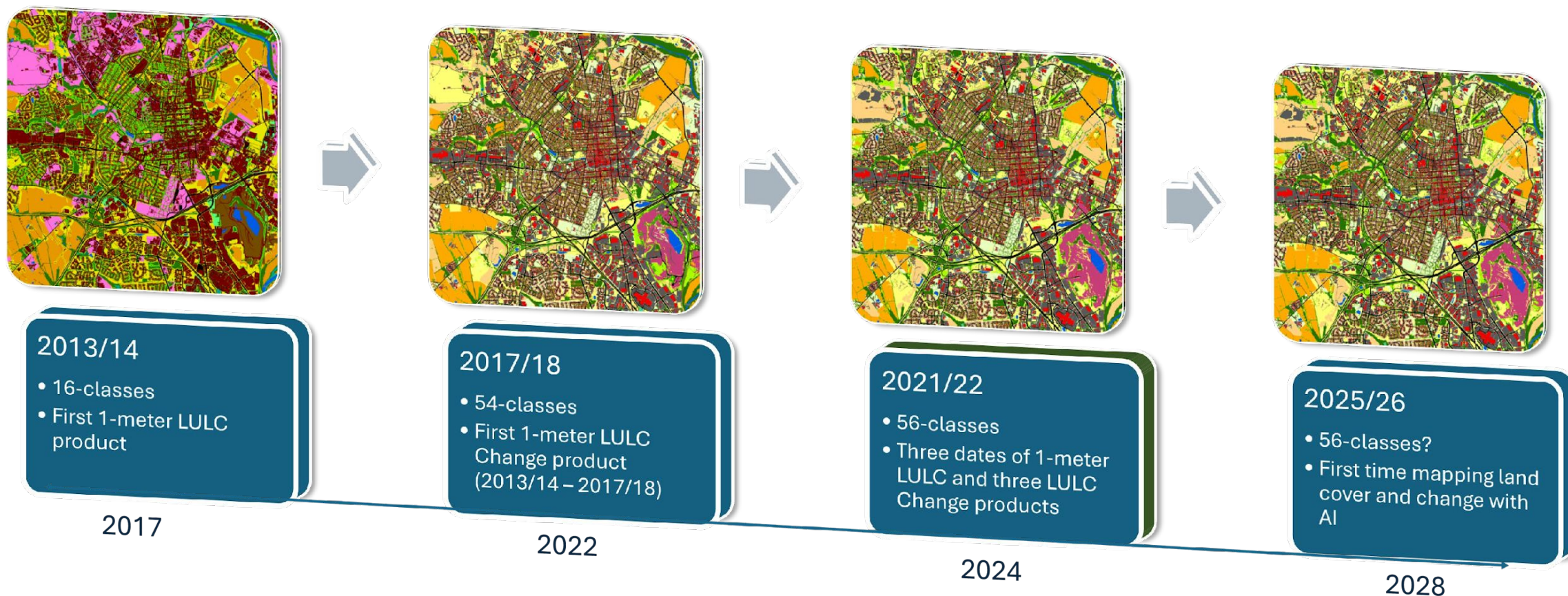
**Deliver the  
data** Support  
planning C  
decision-making



**Document  
the impact**

Collect and communicate  
use cases

# Mapping Land Use/Land Cover (LULC)



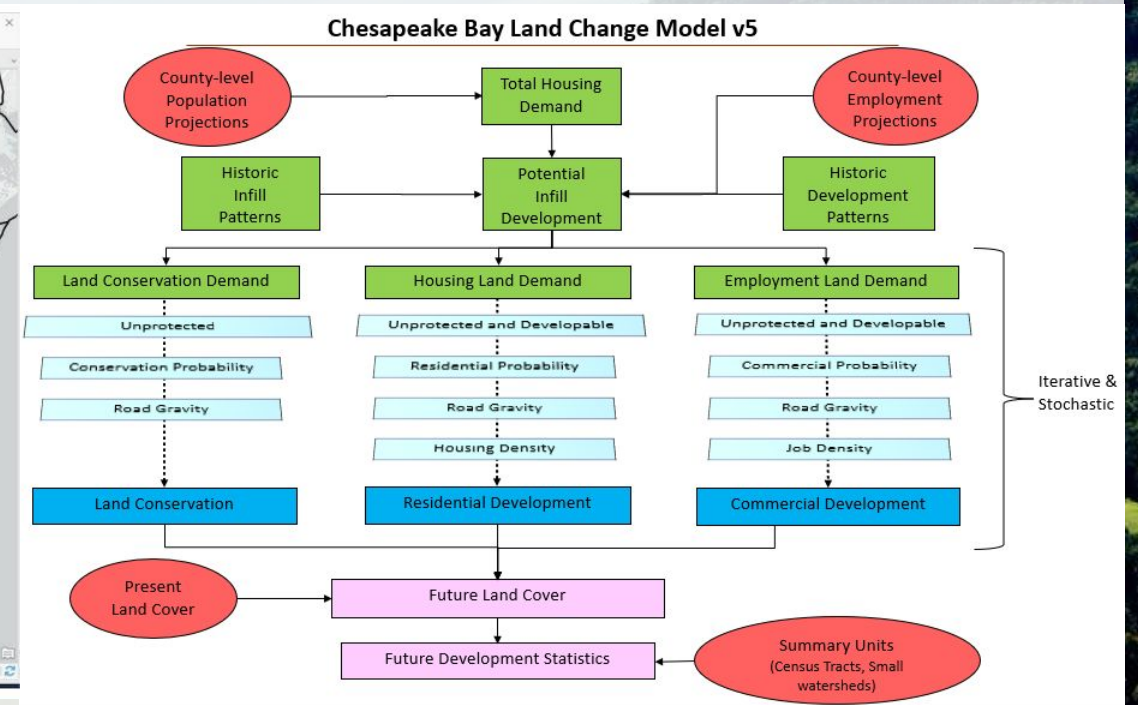
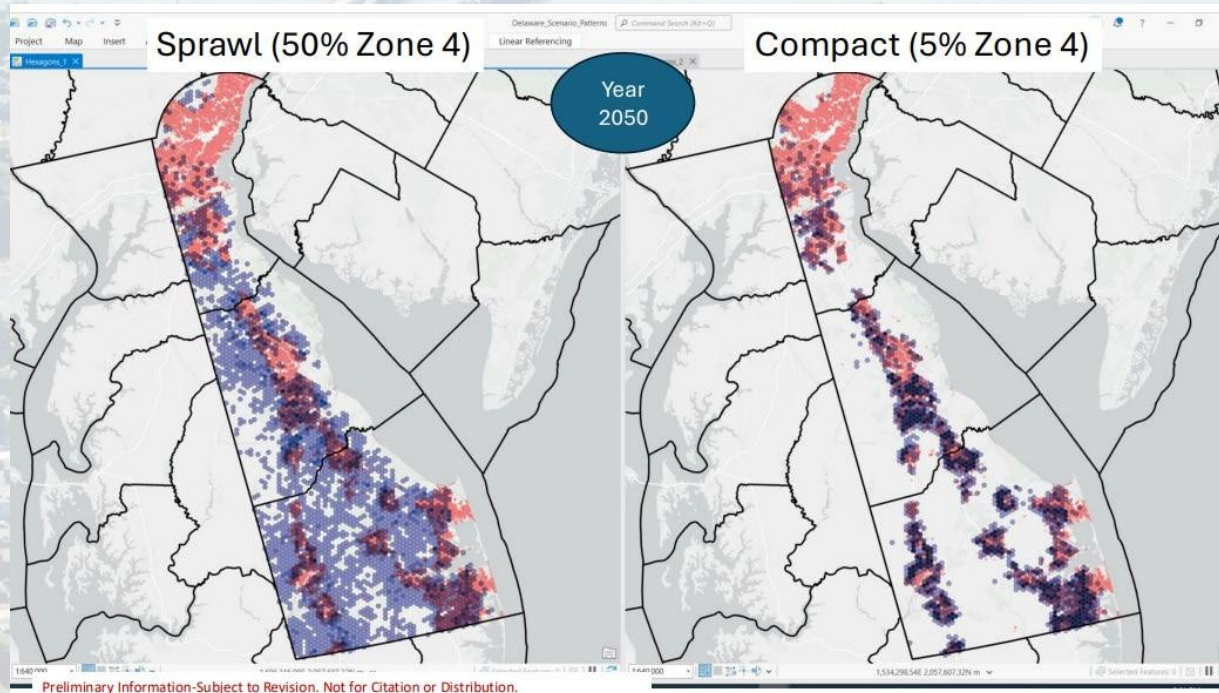
## Land Use/Land Cover Monitoring

With each newly mapped year, the previous year(s) are remapped using the same methods for consistent change detection



# Modeling future land use and development

Slide credit: Peter Claggett, USGS





# Other relevant data s projects

## Hyper-resolution hydrography (2025)

### Chesapeake Bay Hyper-Resolution Hydrography Database

View

Dates

Start Date : 2008  
End Date : 2021  
Publication Date : 2025-05-23


Citation

Baker, M., Saavedra, D., Cang, X., and Ahmed, L., 2025, Chesapeake Bay Hyper-resolution Hydrography Database: U.S. Geological Survey data release, <https://doi.org/10.5066/P1GRAPEX>.

Summary

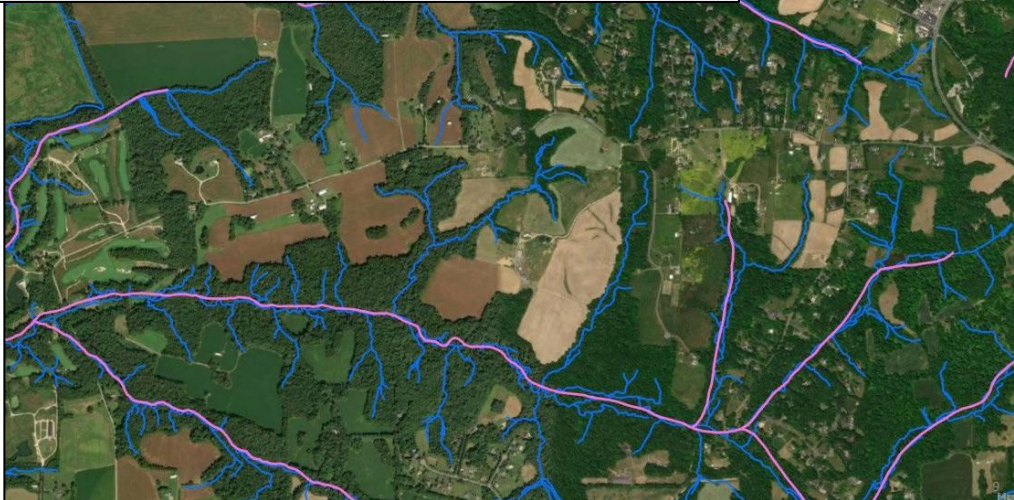
The Chesapeake Bay Hyper-Resolution Hydrography Database is intended to facilitate analysis of the landscape in the Chesapeake Bay watershed through identification of headwater and other low-order streams or drainage features (e.g. ditches) that, to date, may be absent from existing hydrography data products. A full description of the methodology and accuracy assessment is provided in the accompanying report titled: *Hydrography Mapping Supporting Modeling and Targeted Conservation: Project Overview and Lessons Learned* (Project Overview and ... [show more](#) ...)

Map »



Spatial Services

ScienceBase WMS : <https://www.sciencebase.gov/catalog>



## Use case survey (ongoing)

### Chesapeake Bay 1-meter Land Use/Land Cover Dataset: Use Cases

We are looking to capture information about how these data layers are being used. This information is helpful for:

1. advocating for continued funding of the data production
2. reflections on which classes bear more or less importance for stakeholders
3. communicating about future releases and changes to the data layers

What is your name?

Your answer

What is your contact e-mail?

Your answer

# Shifting priorities of the Land Use Workgroup



Technical Study on Changes in Forest Cover and Tree Canopy in Maryland  
November 2022



SENATE BILL 526

M1 3le1713  
CF HB 725

By: Senators Elfreth, Guzzone, Gile, Hester, Kramer, Lam, Hettelman,  
M. Washington, West, and Zucker  
Introduced and read first time: February 3, 2023  
Assigned to: Education, Energy, and the Environment  
Committee Report: Favorable with amendments  
Senate action: Adopted  
Read second time: March 19, 2023



## Mapping/Modeling- Focused

Emphasis on providing technical expertise on the development of the high-resolution land use/land cover data and other land use related products.

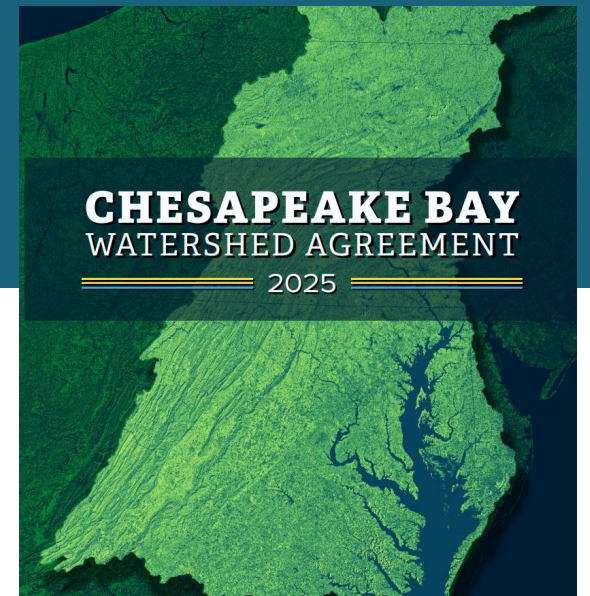
shifting  
towards

**Communication/  
Applications-Focused**  
Emphasis on applications C communication of the high-resolution land use/land cover data and other land use related products.



# New Healthy Forests and Trees Outcome

Conserve, manage and restore forests and tree cover to maximize benefits for water quality, habitat and people throughout the watershed, with a particular focus on riparian areas and communities.



## TARGETS

**Tree Canopy:** Conserve tree canopy within communities by reducing the rate of loss of existing canopy and planting and maintaining 45,000 acres of community trees by 2040 to achieve a net gain in canopy over the long term.

**Forest Buffers:** Conserve riparian forest by reducing the rate of loss of existing buffers and planting and maintaining 7,500 acres of forest buffers annually to achieve no less than 71.5% riparian forest cover by 2040 and 75% riparian forest cover over the long term.

**Forest Conservation:** Achieve a net gain in forests over the long-term by reducing the rate of forest conversion to other land uses by 33%, permanently protecting a total of 9 million acres of forested land, and planting, maintaining and managing 202,000 acres of new forests by 2040.



# Forestry Workgroup Priorities



## Riparian Forest Buffers

Accelerating riparian forest buffer planting and maintenance

Developing and expanding flexible and effective buffer programs

Increasing capacity for restoration

## Community Tree Canopy

Supporting local governments to understand and conserve existing canopy

Accelerating community tree planting and maintenance

## Forest Conservation

Increasing the permanent protection of forested lands

Accelerating upland reforestation

Supporting additional forest management needed to ensure resilience



## What is the Protected Lands Outcome?

Protect water quality, enhance biodiversity, support sustainable livelihoods, bolster local economies, honor cultural heritage, and protect the mission and resilience of military installations.

By 2040, permanently protect at least an **additional 2 million acres** of land above the 2025 baseline of 9.3 million acres. The 2 million acres will include the below targets

Riparian Forests

Wetlands  
(including  
migration  
corridors)

Natural areas  
supporting  
healthy streams

Agricultural  
Lands

Tribal  
Homelands

Urban and  
Community  
Greenspace



# Upcoming/Ongoing Projects

## Attributing Date of Establishment within the Protected Lands Indicator

Clarify and standardize how establishment dates are assigned across jurisdictions.  
Improve consistency to strengthen data quality and comparability.  
Support more accurate tracking of long-term conservation progress

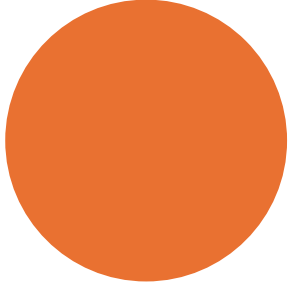
## Defining & Identifying Targets for the Protected Lands Outcome

Riparian forests  
Wetlands, including migration corridors  
Natural areas that support healthy stream systems  
Agricultural lands  
Tribal homelands  
Urban and community greenspace

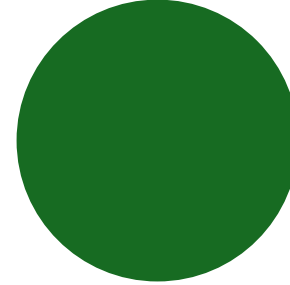
## Understanding Jurisdictional Priorities

Reviewing Jurisdictional plans (SCORPs, Forest Action Plans, Wildlife Action Plans, etc.)  
Examining state priority areas (GIS exercise)  
Understanding funding options  
Understanding jurisdictional goals within the context of the 2025 Bay Agreement

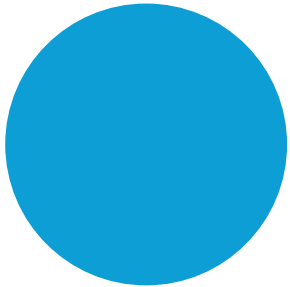
# Priorities



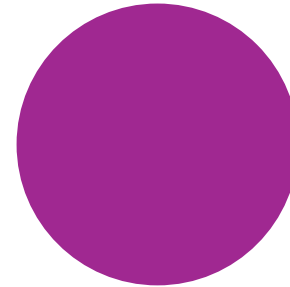
Set **clear conservation targets** (forests, wetlands, streams, agricultural lands, tribal homelands, greenspace)



Provide **high-quality watershed-wide conservation data** and analysis.



**Identify funding** mechanisms that can help support conservation efforts and capacity in the Chesapeake Bay Watershed



Ensure conservation strategies are **locally relevant** by aligning actions with community needs, priorities, and on-the-ground conditions (e.g., Source Water Protection)



# ACEC Outcome

**Increase the capacity for pursuing solutions, including those that are nature-based, to improve planning and responses to changing conditions while balancing long-term resiliency of watershed communities, economies, and ecosystems.**

Focuses on place-based, capacity-building of nature-based solutions for additive resilience benefit

## TARGETS

- By 2040, support at least seven sub-watershed areas with knowledge-sharing and technical assistance to identify adaptation options with a preference for nature-based solutions. These solutions include restoration and protection projects that will help address risks to people, infrastructure and habitats from changes in temperature, precipitation and landscapes.
- By 2040, inform and lead to an increase in the implementation of the identified adaptation options that prioritize and integrate nature-based solutions in the above sub-watershed areas.

# Adaptation Initiatives



## Marsh Adaptation

- Collaborative identification of marsh restoration and protection opportunities
- Consideration of sea level rise and social vulnerability

## Nature-based Solutions (NbS)

- Support partner NbS project proposals for resilience funding
- Support NbS performance research for changing environmental conditions

## Community Resilience

- Support partner projects that identify best practices for community engaged adaptation
- Integrate social vulnerability metrics



# Next Steps



## Strategic Planning

- Recruit membership (~May-Dec 2026)
- Complete strategic networking technical assistance and identify collaborative opportunities with Healthy Landscapes and other workgroups (~May-Jun 2026)
- Outreach to jurisdictions to collect information on adaptation priorities (~Jun-Dec 2026)
- Work on ACEC components of Healthy Landscapes Management Strategy and workplan (due Spring 2027)

## Keeping the Momentum on the Work

- NbS STAC Synthesis Project 2nd monitoring indicator and metrics charrette (Jun 2026)
- Disseminate Choptank marsh adaptation report & develop communication materials (~Jun-Sep 2026)
- Work with Envision the Choptank partners to evaluate a workgroup framework for supporting tidal and nontidal subwatershed activities (~Oct-Dec 2026)

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