

Blue/Green Infrastructure Study Accomack County, VA

Overview

December 7, 2010

Accomack County and the
Green Infrastructure Center, Inc.



Project Overview

- Summer 2008:** Accomack BOS requests GIC to pursue funding to conduct a study of the county's blue and green infrastructure
- **May 2009:** GIC obtains funds and begins study. Accomack County receives VA CZM Grant funding for Department of Planning to assist with GIS data, public outreach, report review.
 - **Project Purpose:**
 - Identify Accomack's Blue / Green Infrastructure
 - Develop Strategies to Protect BGI
 - Enhance Accomack's BGI Planning Capabilities
 - Use BGI Maps in County Land Use Planning

Benefits of Green and Blue Infrastructure Plans

- ❑ Conserving working lands such as farms and forests, that contribute to the economy.
- ❑ Protecting and preserving water quality and supply.
- ❑ Providing cost-effective stormwater management and hazard mitigation.
- ❑ Preserving biodiversity and wildlife habitat.
- ❑ Improving public health, quality of life and recreation networks.



The mission of the nonprofit Green Infrastructure Center (GIC) is to help localities evaluate their green assets and manage them to maximize ecological, economic and cultural returns.

This project is a partnership between GIC and Accomack County.



Donors make it all possible!



Virginia Coastal Zone
MANAGEMENT PROGRAM

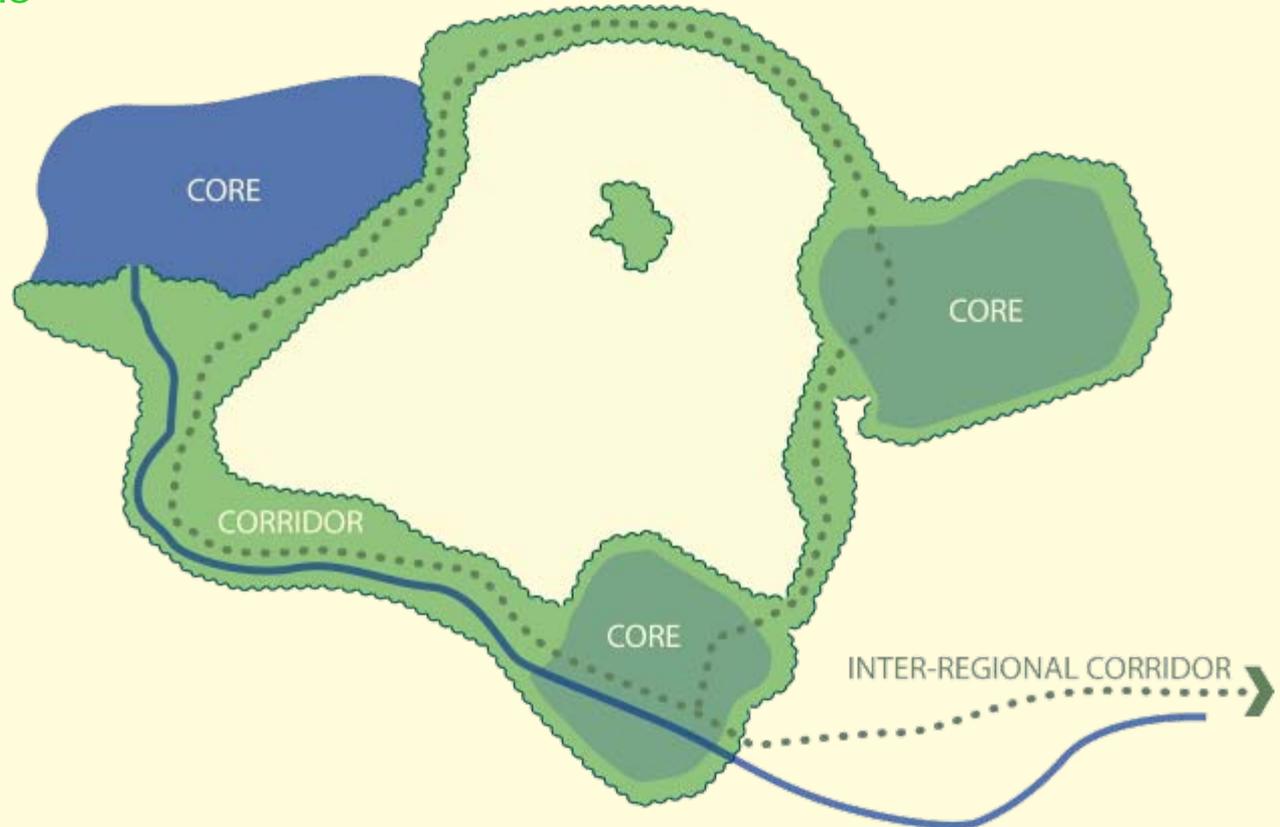
Why seek to connect habitat?





What Is Green/Blue Infrastructure Planning?

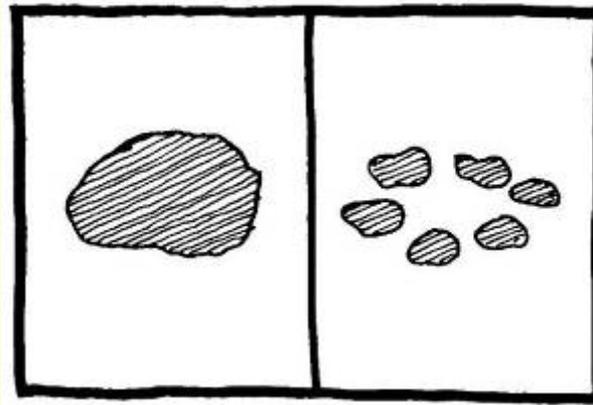
“Strategically planned and managed networks of **natural lands, working landscapes and other open spaces** that conserve ecosystem **values and functions** and provide associated **benefits to human populations**”



It's about connecting the landscape!

Larger patches = large benefits

*more interior species, larger populations,
more habitat types*

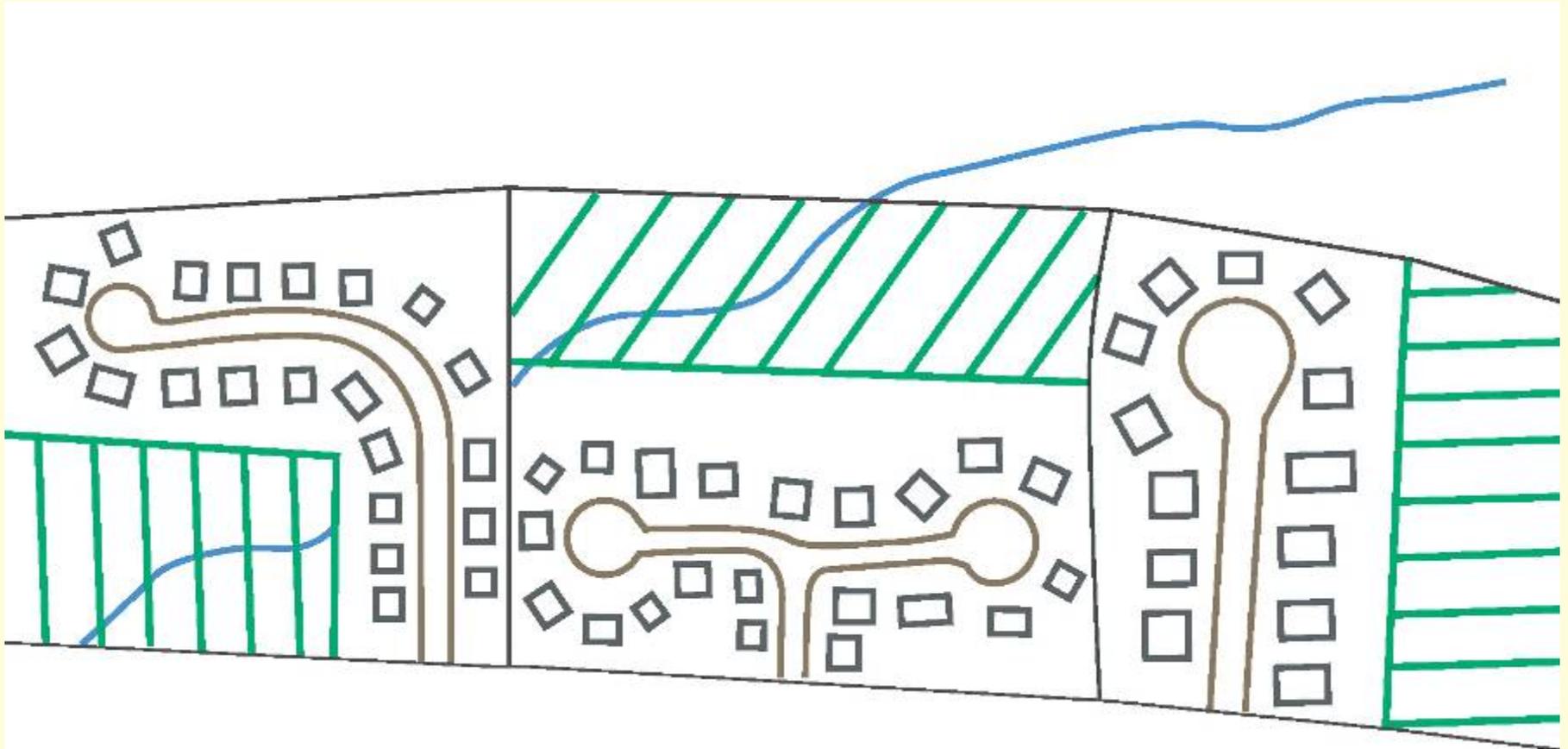


Smaller patches = supplemental benefits

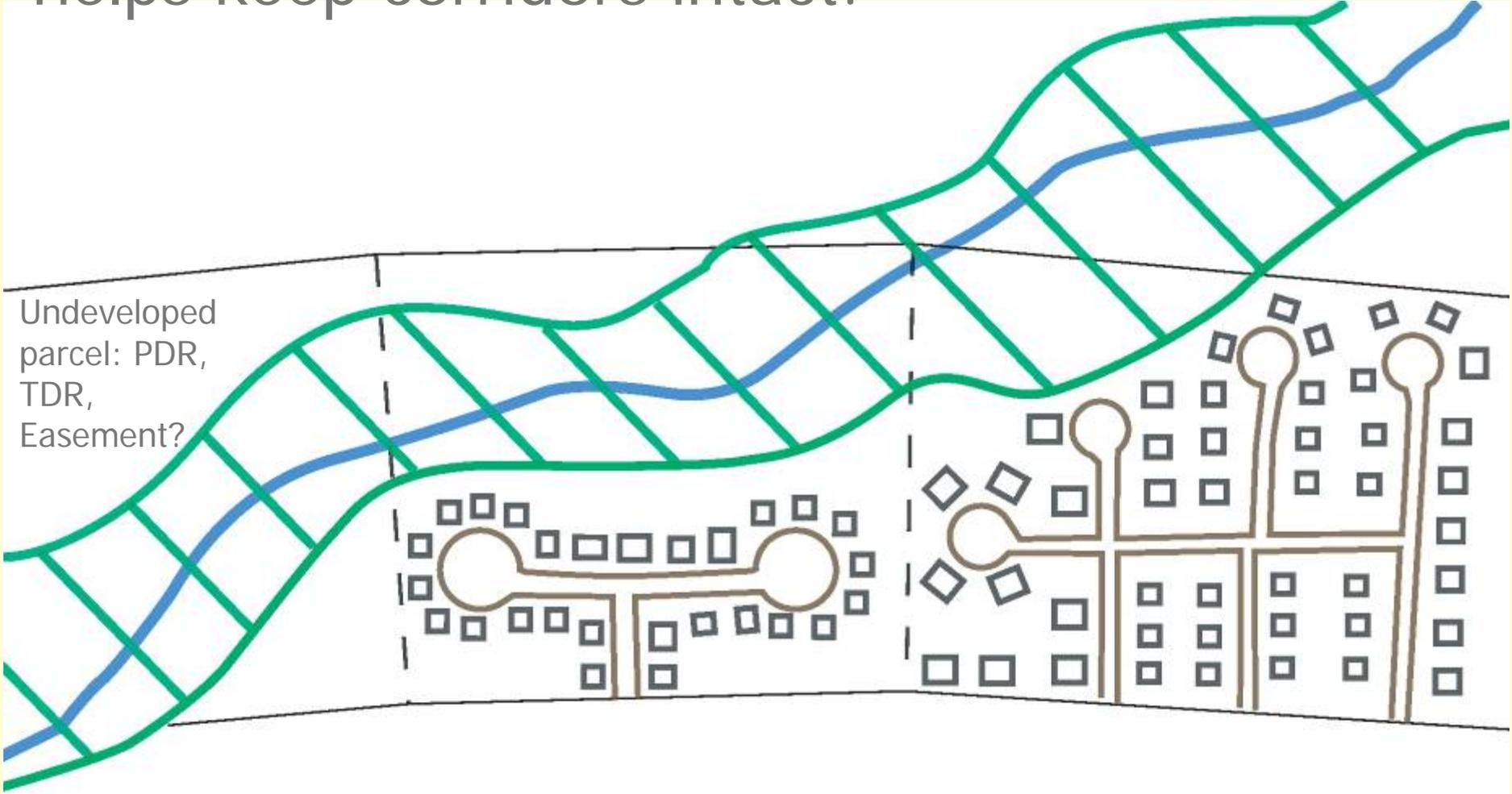
*act as stepping stones for species
movement*

Image source: Dramstad, Wenche E., et al. *Landscape Ecology Principles in Landscape Architecture and Land Use Planning*. Washington D.C., Island Press, 1996.

Here's the problem when cluster developments don't look outside the parcel:



Green infrastructure approach helps keep corridors intact.

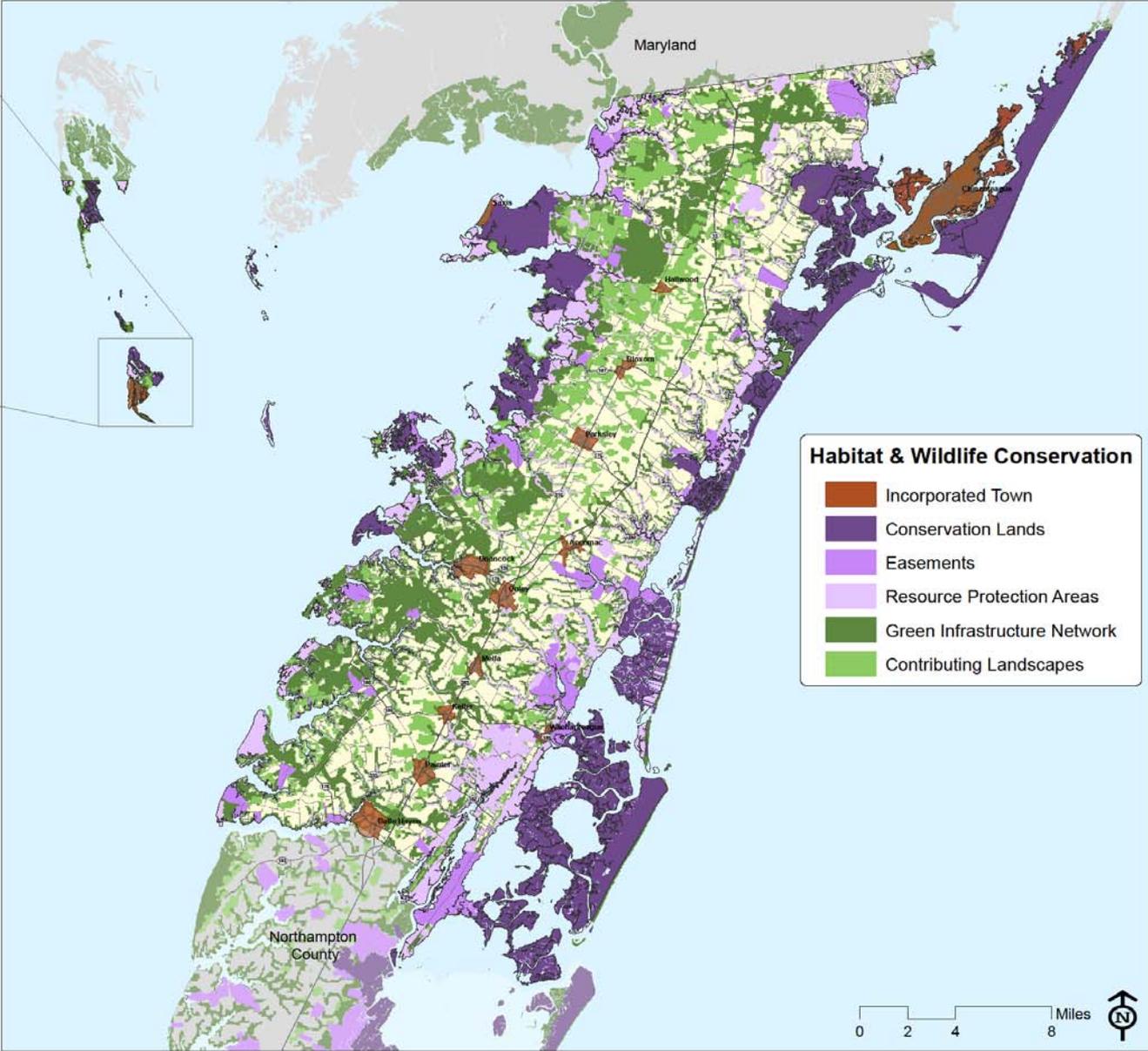


Green Infrastructure Assets



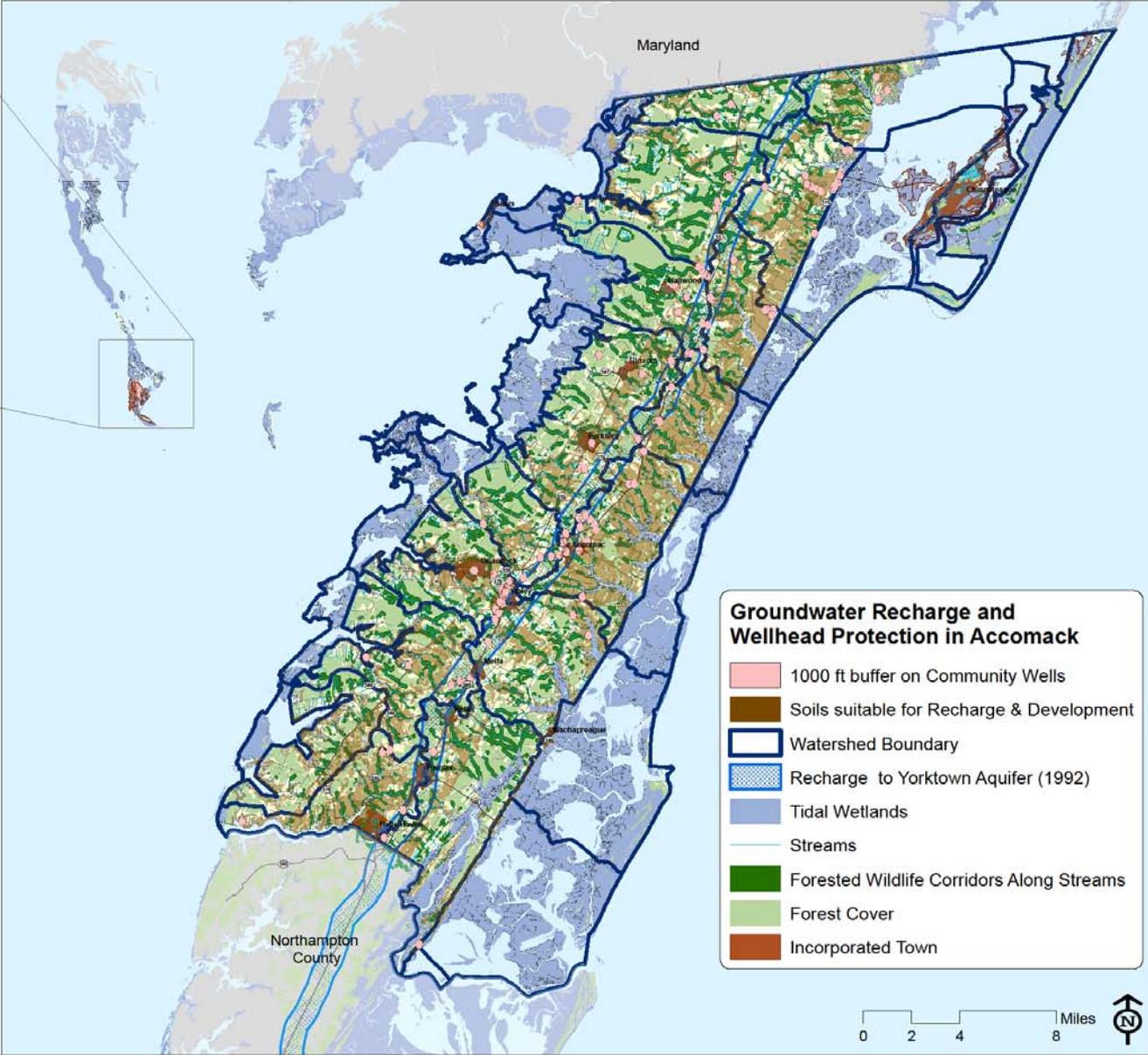
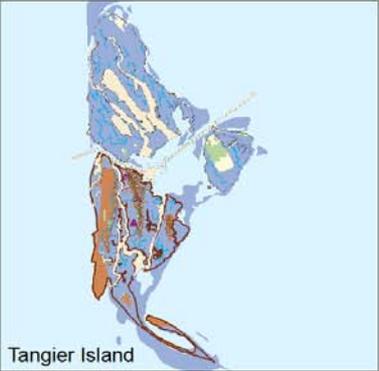
Asset Maps

- Habitat & Wildlife Conservation
- Water Quality
- Working Lands & Waters
- Recreation Access and Trails
- Cultural Resources / Sense of Place



Priority habitat and wildlife conservation areas.

This map shows what is protected or least likely to change (purple) and areas that need special attention to allow the habitats to remain connected (green).

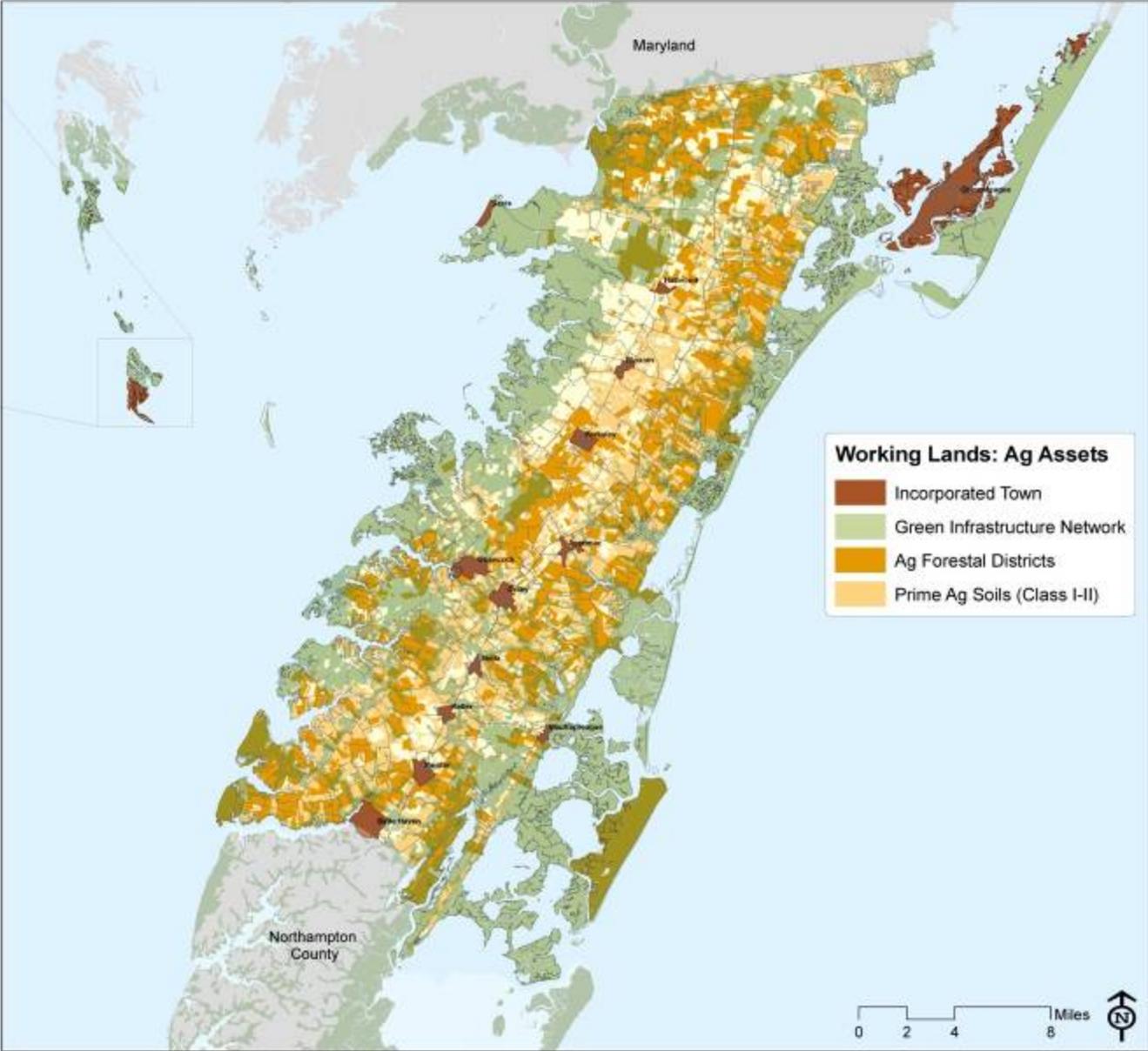


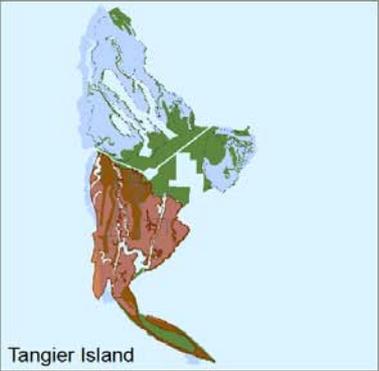
Landscape components that contribute to water quality include:

- Riparian buffers
- Forested watersheds
- Protected headwater areas and wetlands
- Protected wellheads



Landscape components for agriculture include: Prime soils and Agriculture/Forestral Districts (AFD)

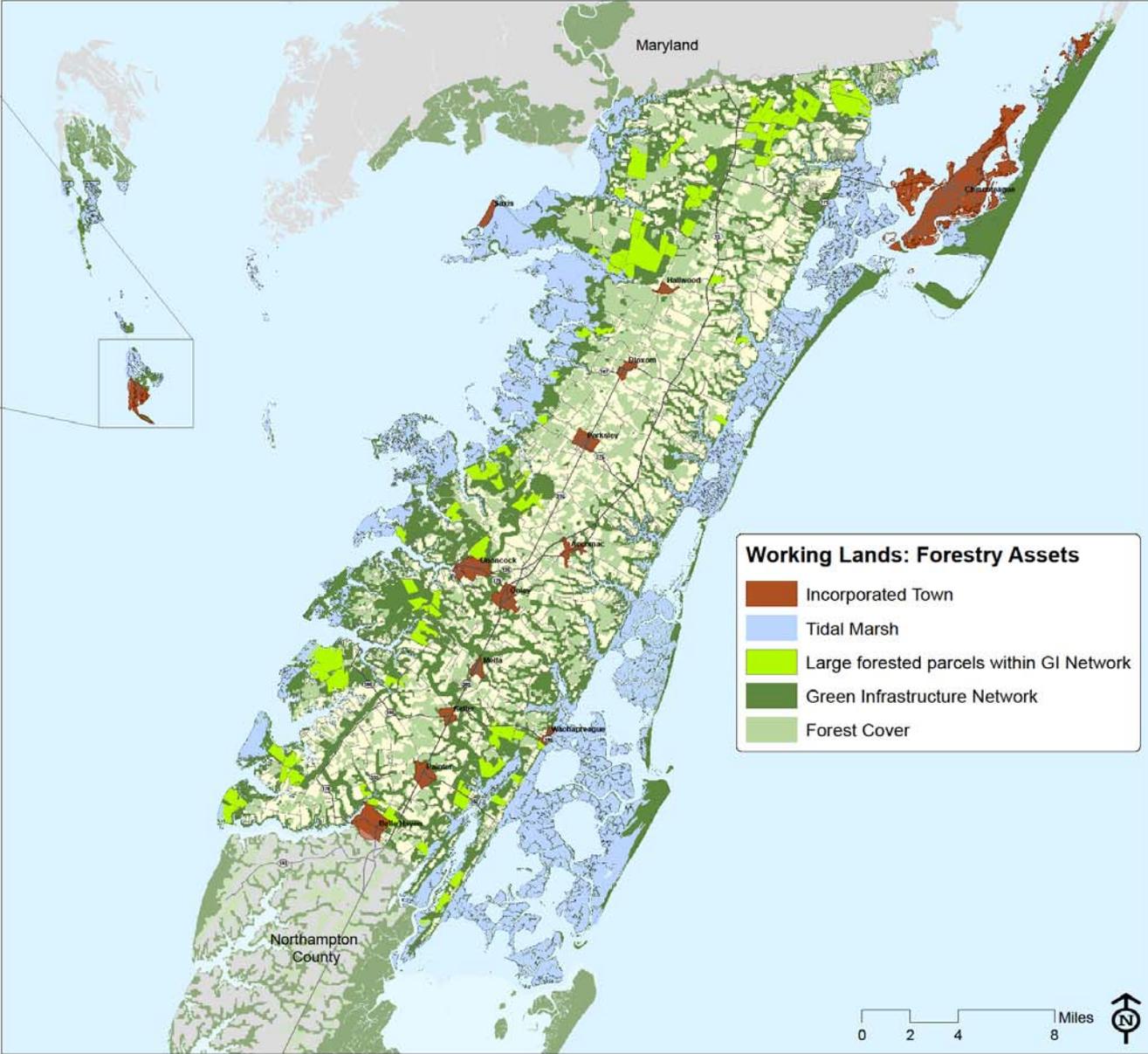




Forestry landscape components include:
Forest cover
Tidal marshes

Identification of forested parcels in GI network large enough to manage for forestry and wildlife.

Also mapped forest stewardship plans for DOF to match plans to the GI network.

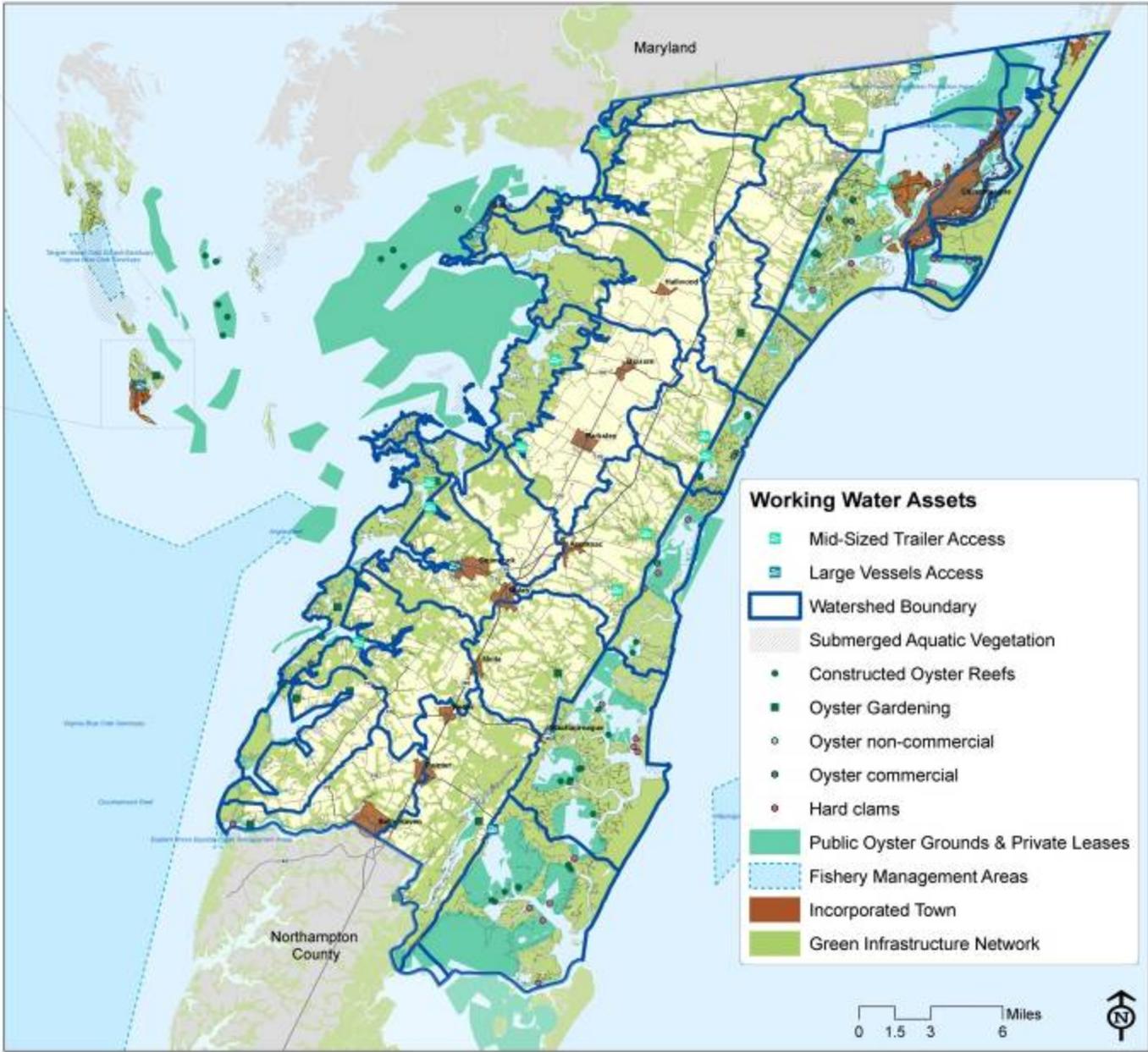


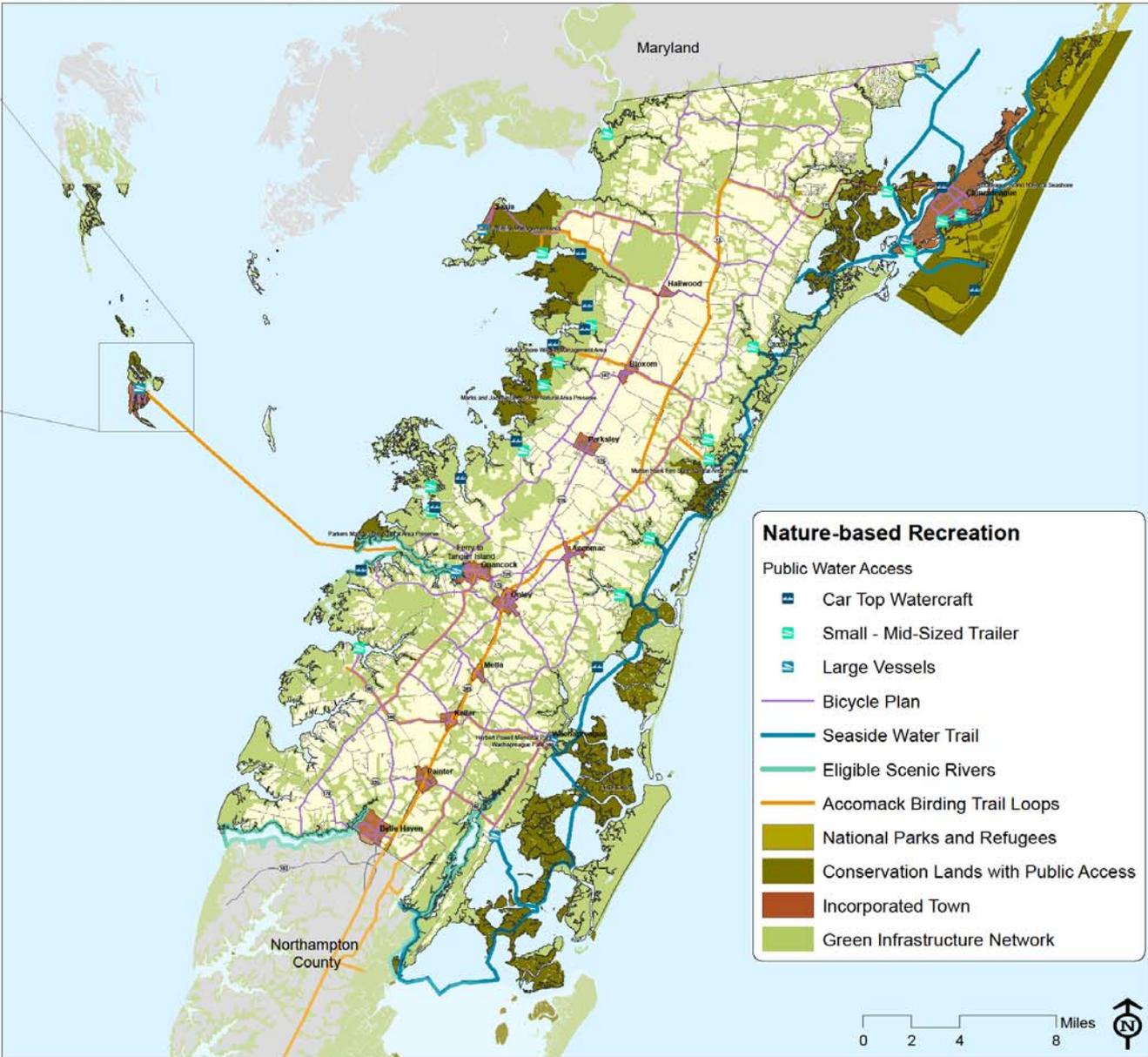


Working water assets support fishery and recreation economy.

Components include:

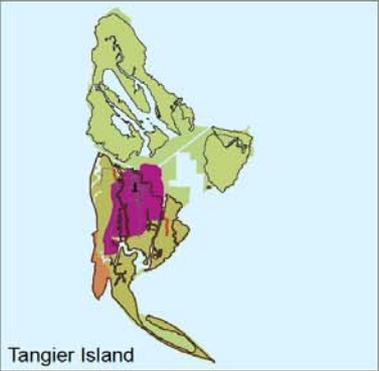
- Water access
- Watersheds
- SAV
- Oyster, clam beds
- Fishery mgmt. areas





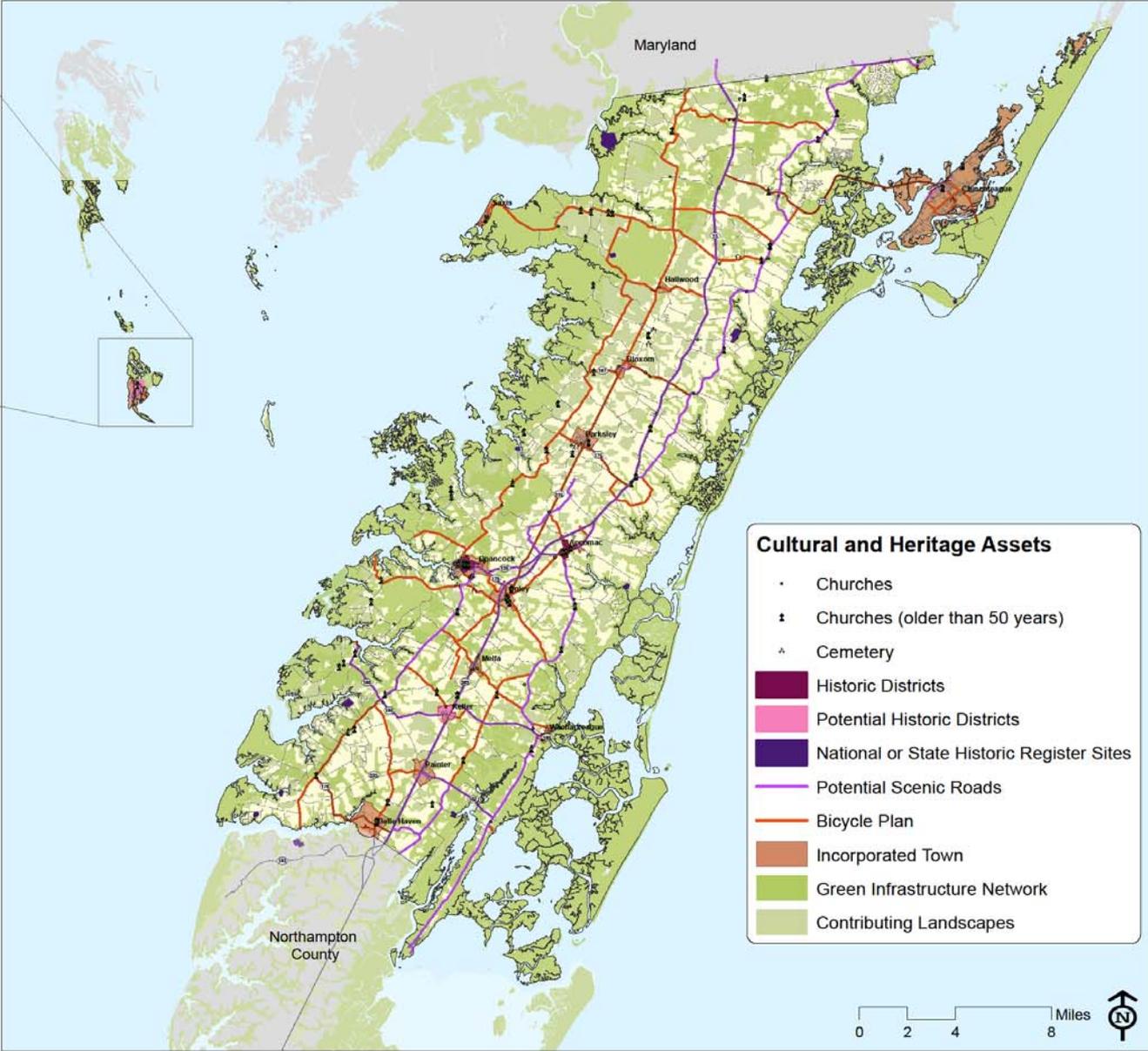
Nature-based recreation assets include:

- Conservation lands with public access
- Parks
- Birding and wildlife trails
- Water trails
- Water access points



Natural landscapes provide important context and scenic qualities to heritage and cultural resources including:

- Historic districts and buildings
- Cultural events
- Scenic roads
- Viewsheds





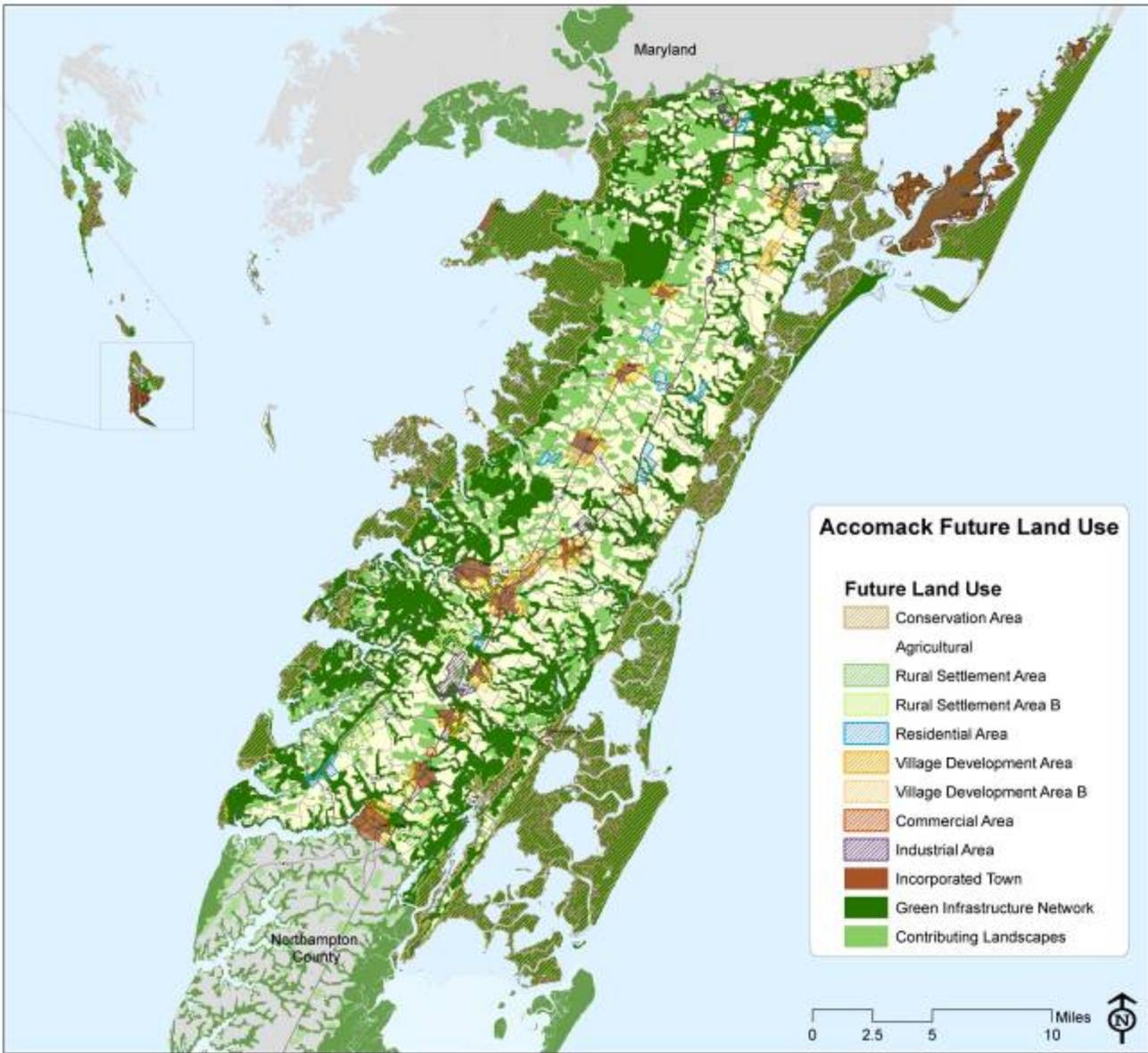
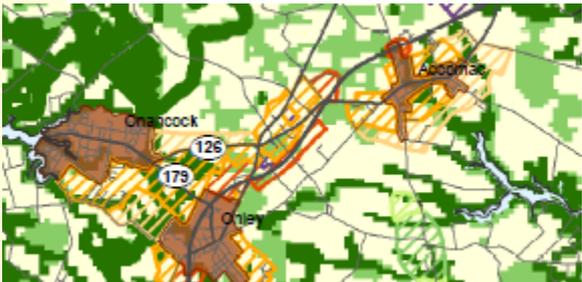
Opportunity Maps



What strategies could the county pursue to conserve and take advantage of its green and blue infrastructure?

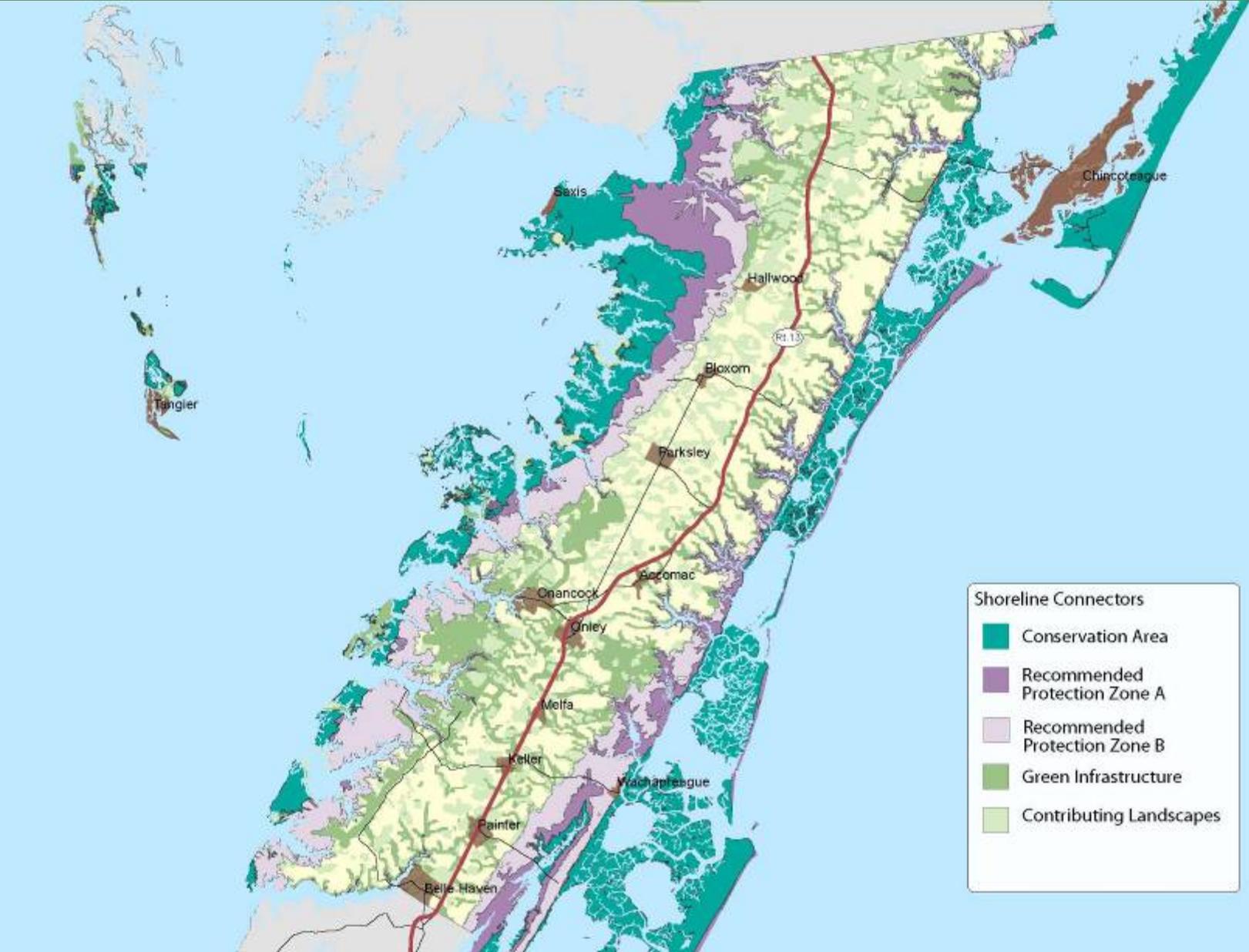


The future land use map shows where extra care will be needed to ensure that connections are maintained as the county develops.



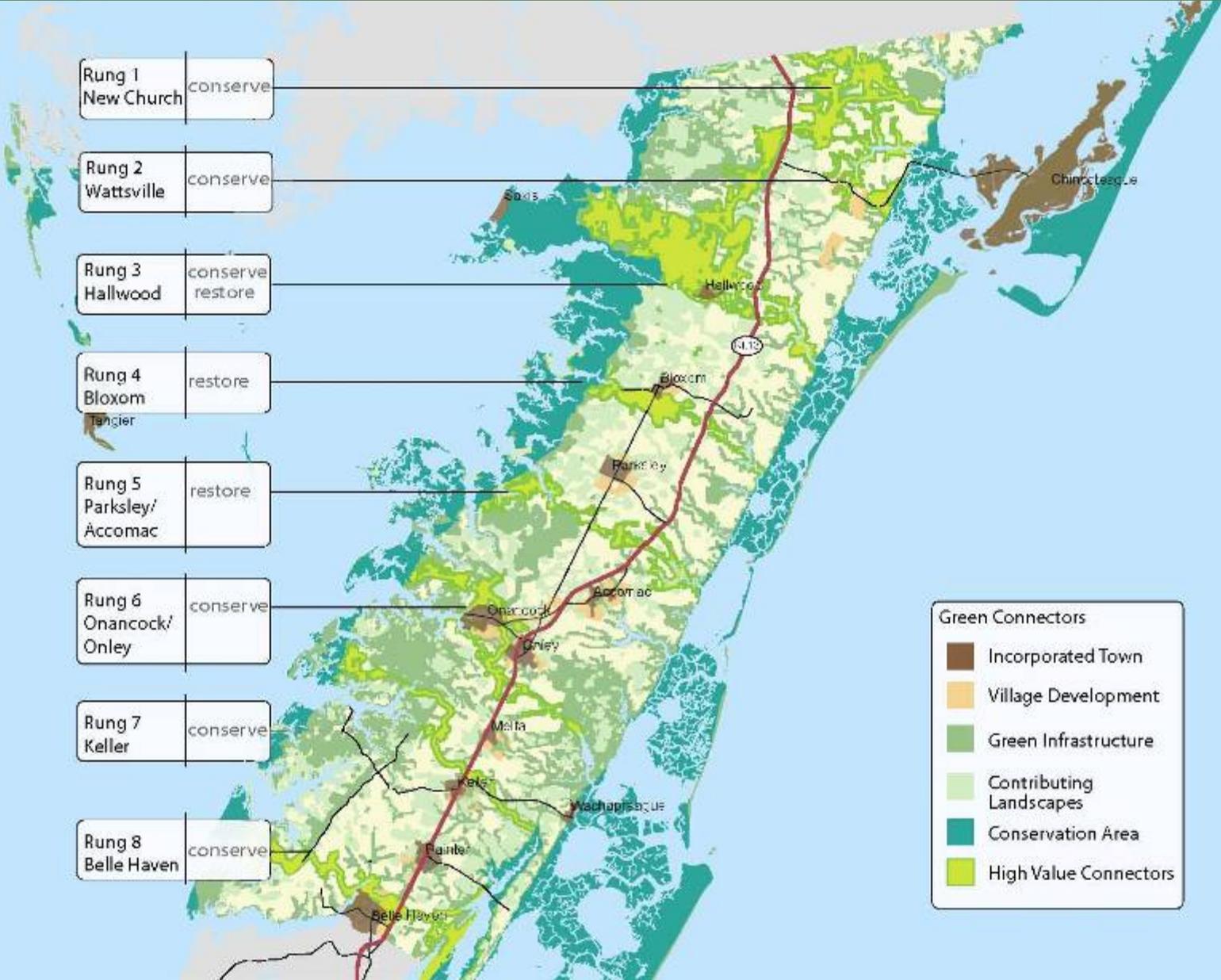


GREEN INFRASTRUCTURE CENTER



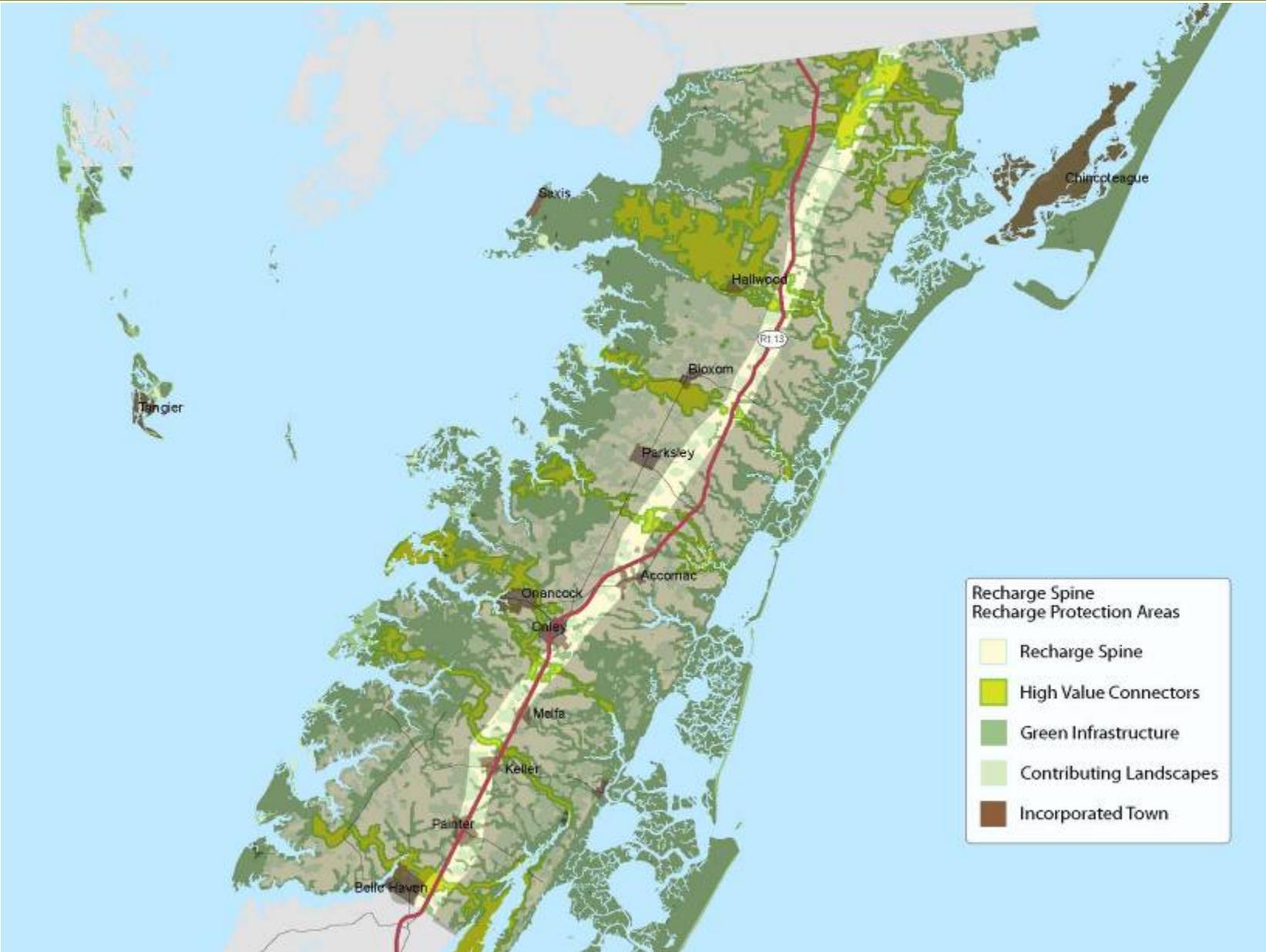
Shoreline Connectors

- Conservation Area
- Recommended Protection Zone A
- Recommended Protection Zone B
- Green Infrastructure
- Contributing Landscapes





GREEN INFRASTRUCTURE CENTER

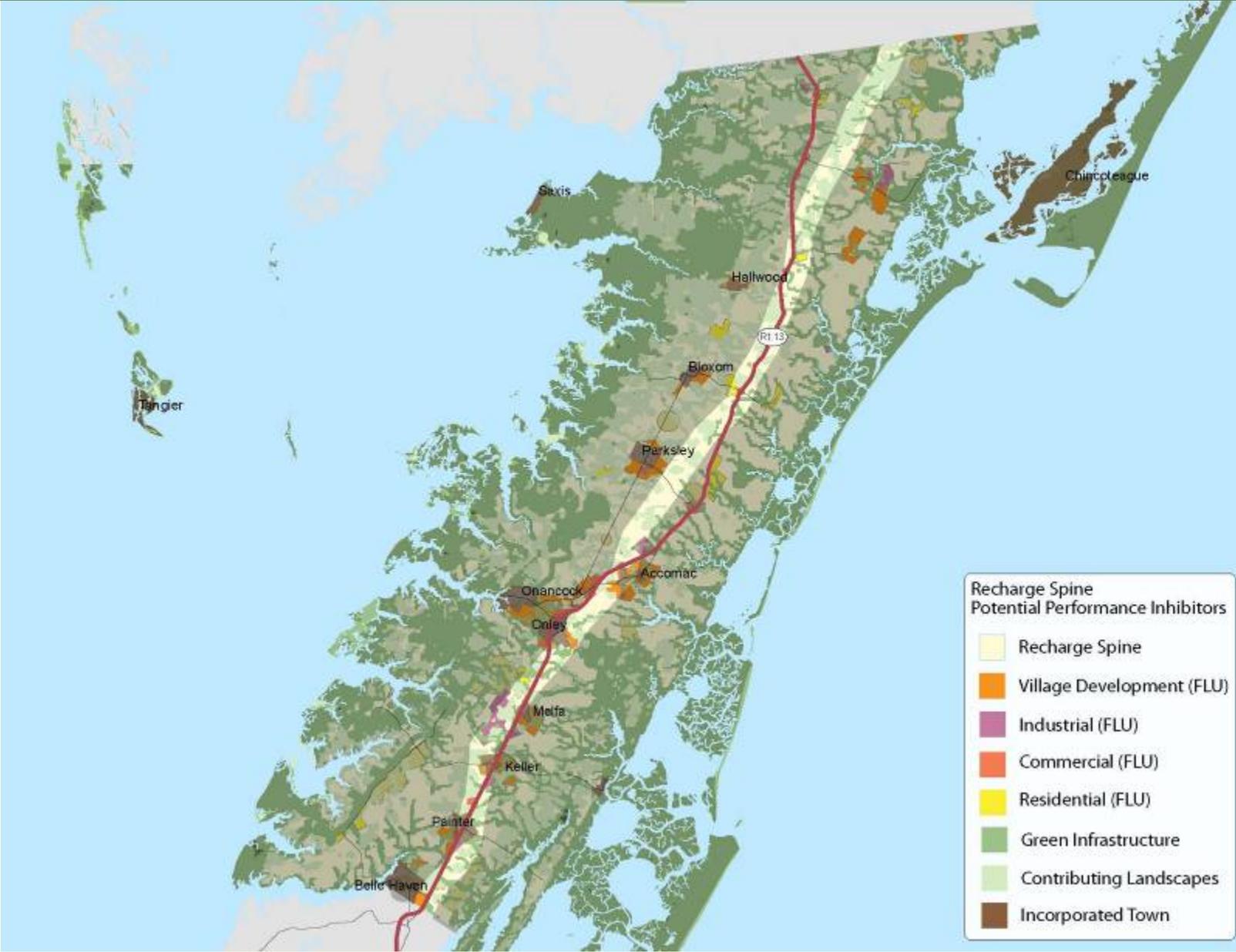


**Recharge Spine
Recharge Protection Areas**

- Recharge Spine
- High Value Connectors
- Green Infrastructure
- Contributing Landscapes
- Incorporated Town



GREEN INFRASTRUCTURE CENTER



Recharge Spine
Potential Performance Inhibitors

- Recharge Spine
- Village Development (FLU)
- Industrial (FLU)
- Commercial (FLU)
- Residential (FLU)
- Green Infrastructure
- Contributing Landscapes
- Incorporated Town



Accomack County Applications

Site plan review –opportunities to conserve landscape connections or to restore lost connections

Park and open space planning – for trails or water access.

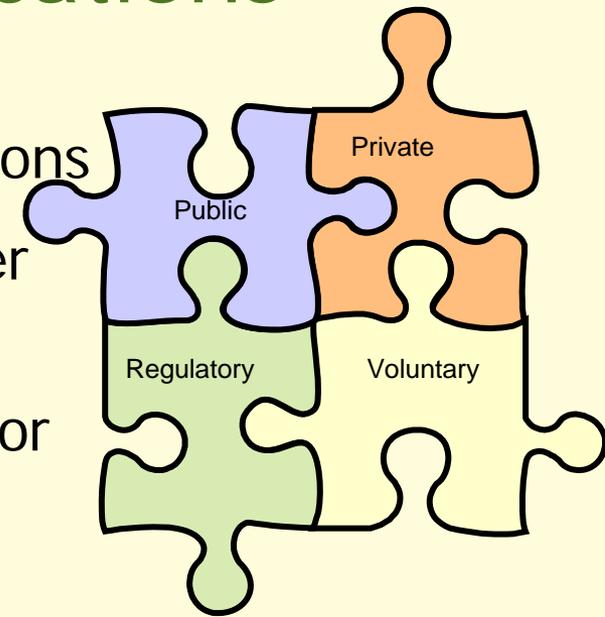
Growth and conservation areas – Identify lands for PDR or TDR programs or easements.

Transportation planning: roads and trails

Tourism Planning – Conserve views, historic landscapes and scenic drives or boating experiences.

Water Conservation – Conserve recharge and avoid water pollution of streams and fisheries.

Comprehensive Plan – Update maps will become base maps for priority conservation areas.



You'll love our nature!



To download the final report visit: <http://www.gicinc.org/Accomack.htm>



Project Timeline Overview

- **Summer 2008:** Presentation to BOS and approval to pursue funding to conduct a study of the county's blue and green infrastructure
- **May 2009:** Funds obtained and GIC begins study.
- **Summer 2009:** Review of past scientific studies and reports for Accomack County. Conduct stakeholder interviews.
- **Fall 2009:** Preparation of Green Infrastructure Asset Maps. County secures grant from Va. Coastal Zone Program to fund county staff.
- **Spring 2010:**
 - Creation of opportunity maps – what are some strategic opportunities for conserving Accomack County's blue and green infrastructure? Also created a strategy map for Dept. of Forestry for targeting their stewardship plan.
 - Public engagement at meetings and at arts festival.
 - Creation of final report.
 - Last steps underway: Ensure all data transferred to county.
- **On-going:** Use green infrastructure maps in county land use planning.