

Conservation & Connectivity in the Piedmont

PEC Annual Meeting – June 1, 2024

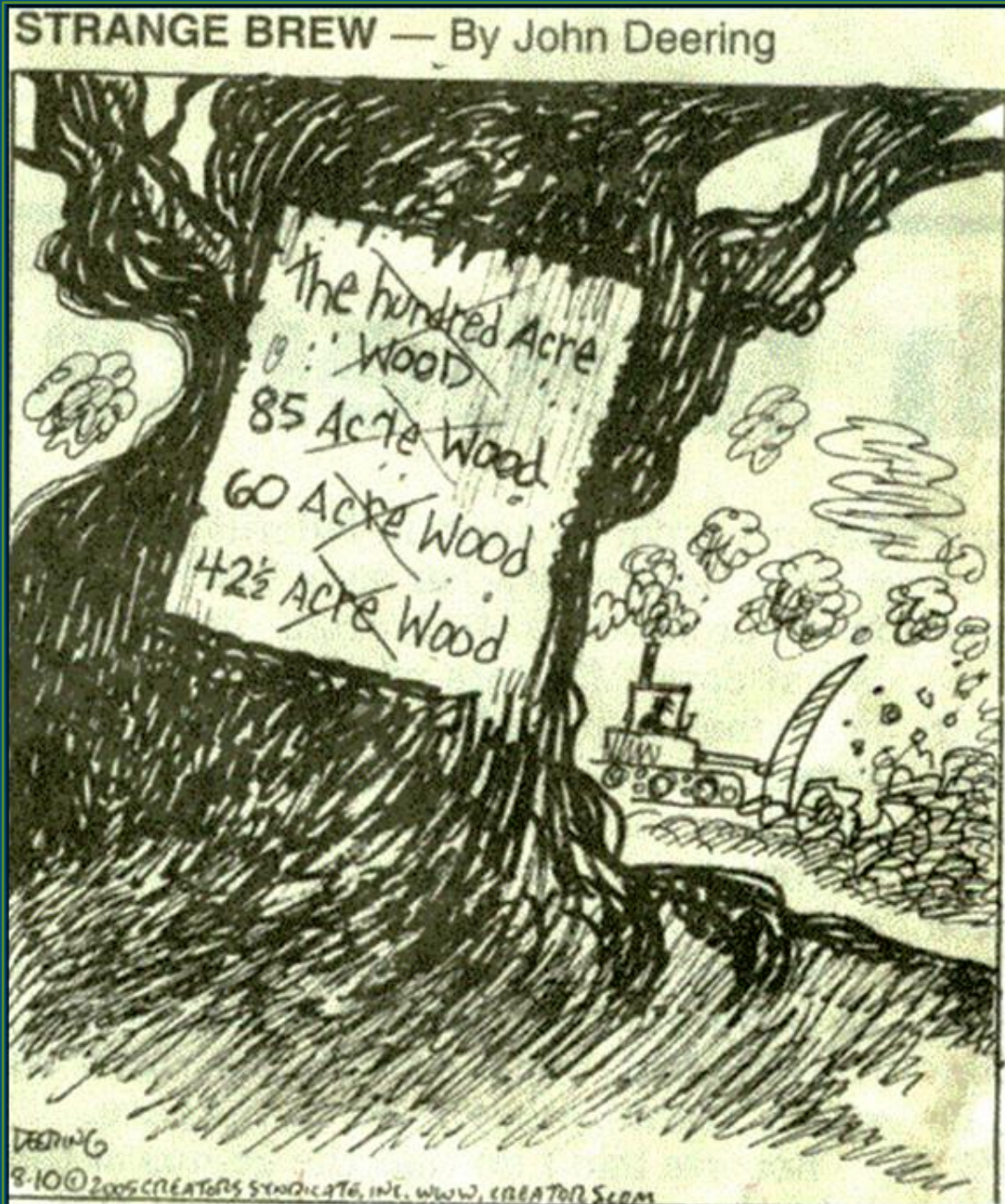
Kim Biasioli, Senior Conservation Field Representative, PEC





Moorman's River Overlook

John Bilous



Parcelization

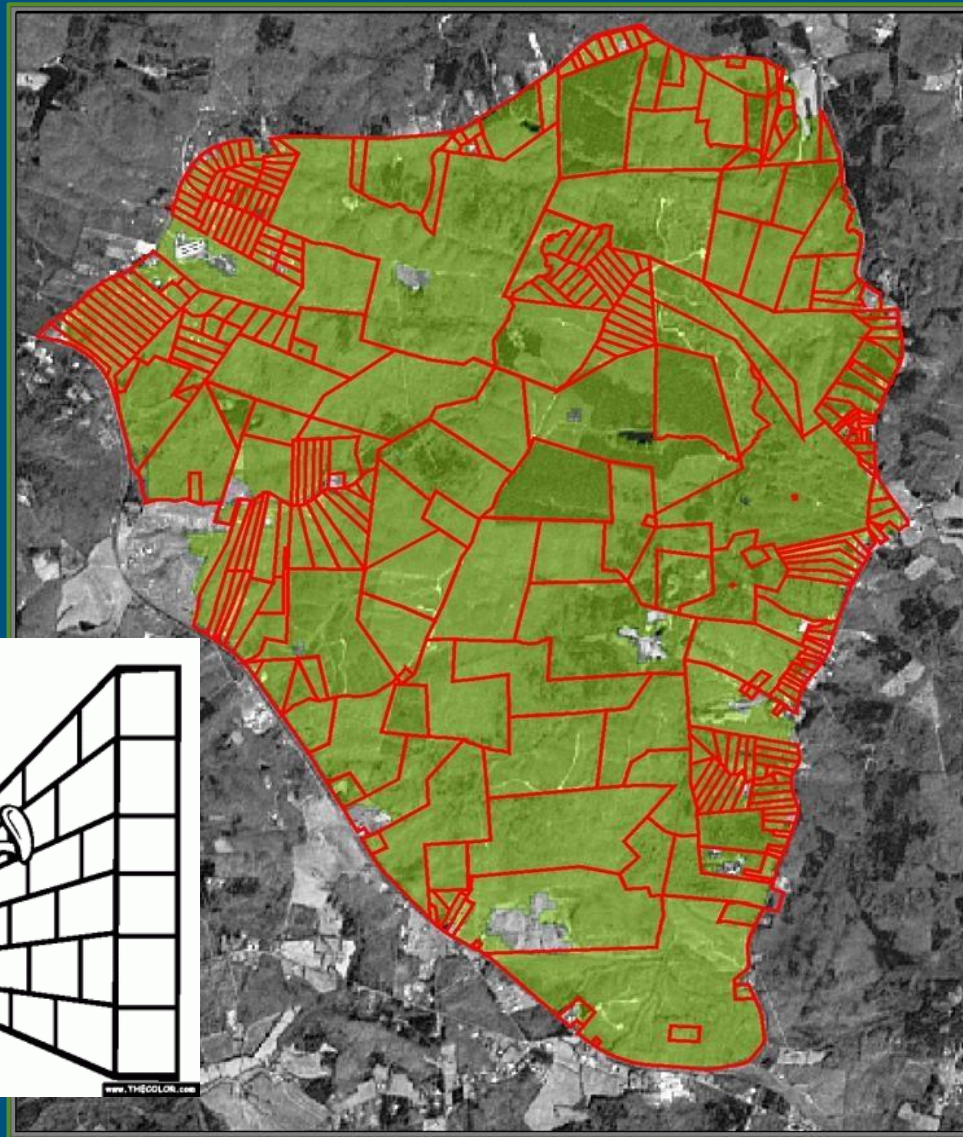


Fragmentation

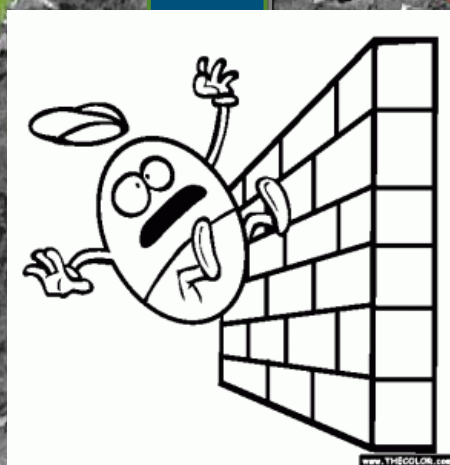
The rural landscape is becoming more fragmented...



7,500 acres
Single ownership
High ecological integrity



7,500 acres
328 ownership parcels (avg. 22 ac.)
Loss of ecological integrity





Graphic credit: USDA Forest Service

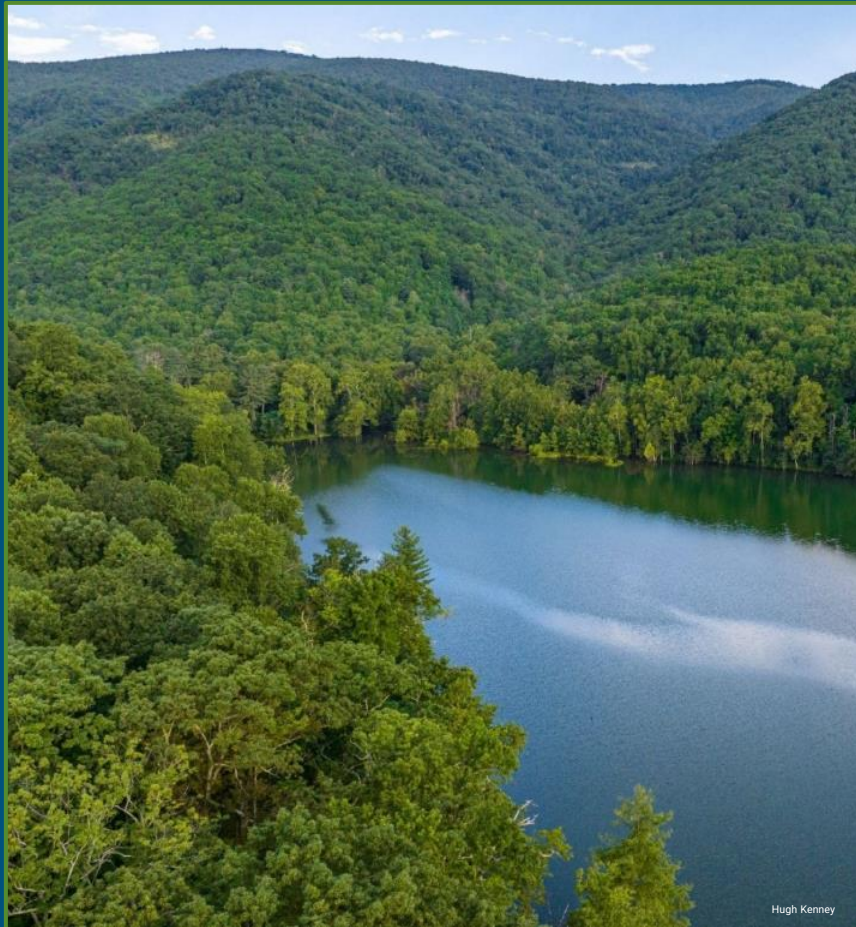
Keeping Rural Land Intact: Rural Economies



Smaller parcels are less economically viable as working lands.



Keeping Rural Land Intact: Watershed Protection & Climate Resiliency



Sugar Hollow Reservoir

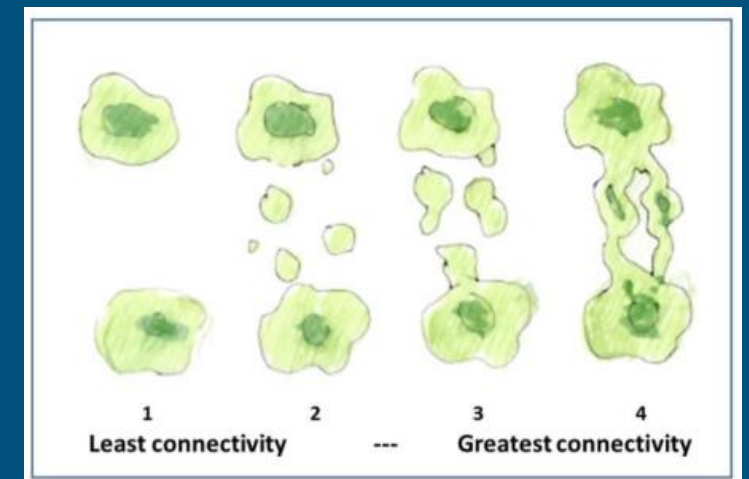
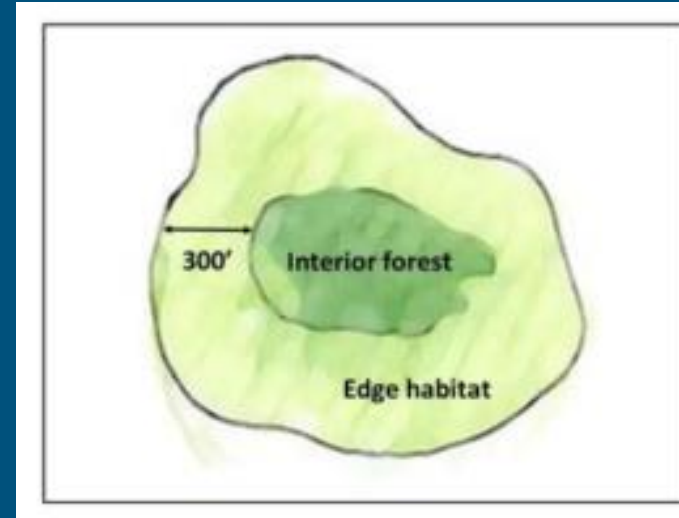


Holkham Road
Albemarle Co.
2018

Keeping Rural Land Intact: Habitat

Spatial qualities affect
habitat within a landscape:

1. SIZE
2. EDGE/INTERIOR
3. SHAPE
4. CONNECTIVITY



Keeping Rural Land Intact: Habitat



Many species in the Piedmont rely on interior forest and/or large patches of natural habitat to thrive.



Landscape-scale Conservation:

Private, working landscapes play a critical role



Black-throated green warbler

50 Current Biology

Supports open access

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Seasonal patterns and protection status of stopover hotspots for migratory landbirds in the eastern United States

Fengyi Guo ^{1, 5, 6} • Jeffrey J. Buler • Jaclyn A. Smolinsky ⁴ • David S. Wilcove • [Show footnotes](#)

Published: December 12, 2023 • DOI: <https://doi.org/10.1016/j.cub.2023.11.033> • [Check for updates](#)

2/3 of stopover hotspots for migratory birds in the eastern US are on private land.

How can we address this challenge of keeping rural land intact?

Accelerate land conservation



*PEC's goal is to protect
+100,000 acres by 2030*



Partnerships

Management
Planning

Comprehensive
Planning &
Zoning

Recognition
Programs

Conservation
Easements

Legacy & Estate
Planning

The Conservation Toolbox

Overlay
Districts

Ecosystem Services
Markets

Purchase of
Development Rights

Tax
Incentives

Grant
Programs

Cost-Share
Programs

Scenic & Historic
Designations



What is a Conservation Easement?



A voluntary legal agreement designed to protect natural and cultural resources in perpetuity.

Conservation Easements: General Terms

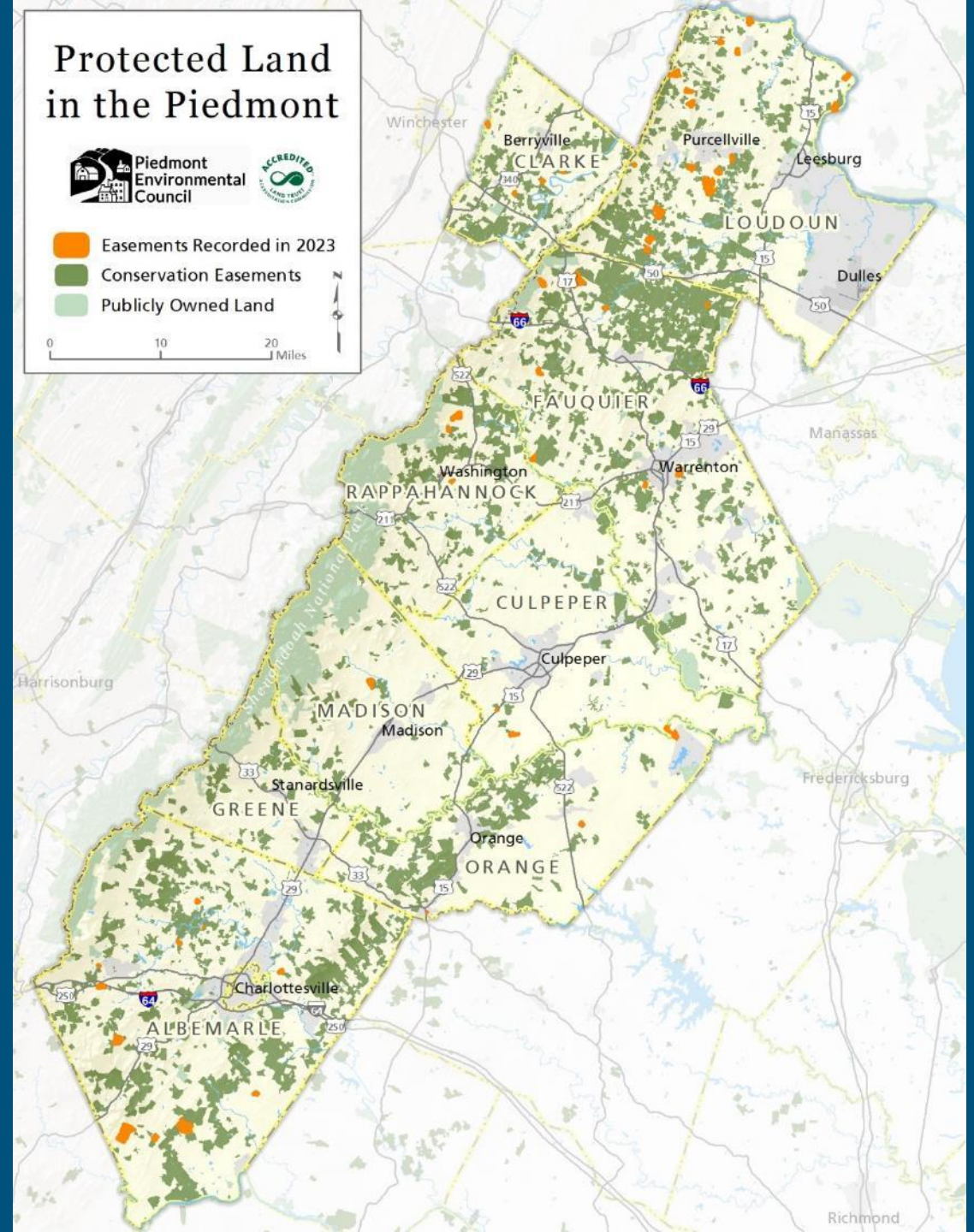
- ❖ Limitations on:
 - ❖ Subdivision
 - ❖ Industrial & commercial uses
 - ❖ Buildings & structures
 - ❖ Impervious cover

- ❖ Requirements for:
 - ❖ Plans & BMPs for agriculture and forestry
 - ❖ Protection of priority resource areas



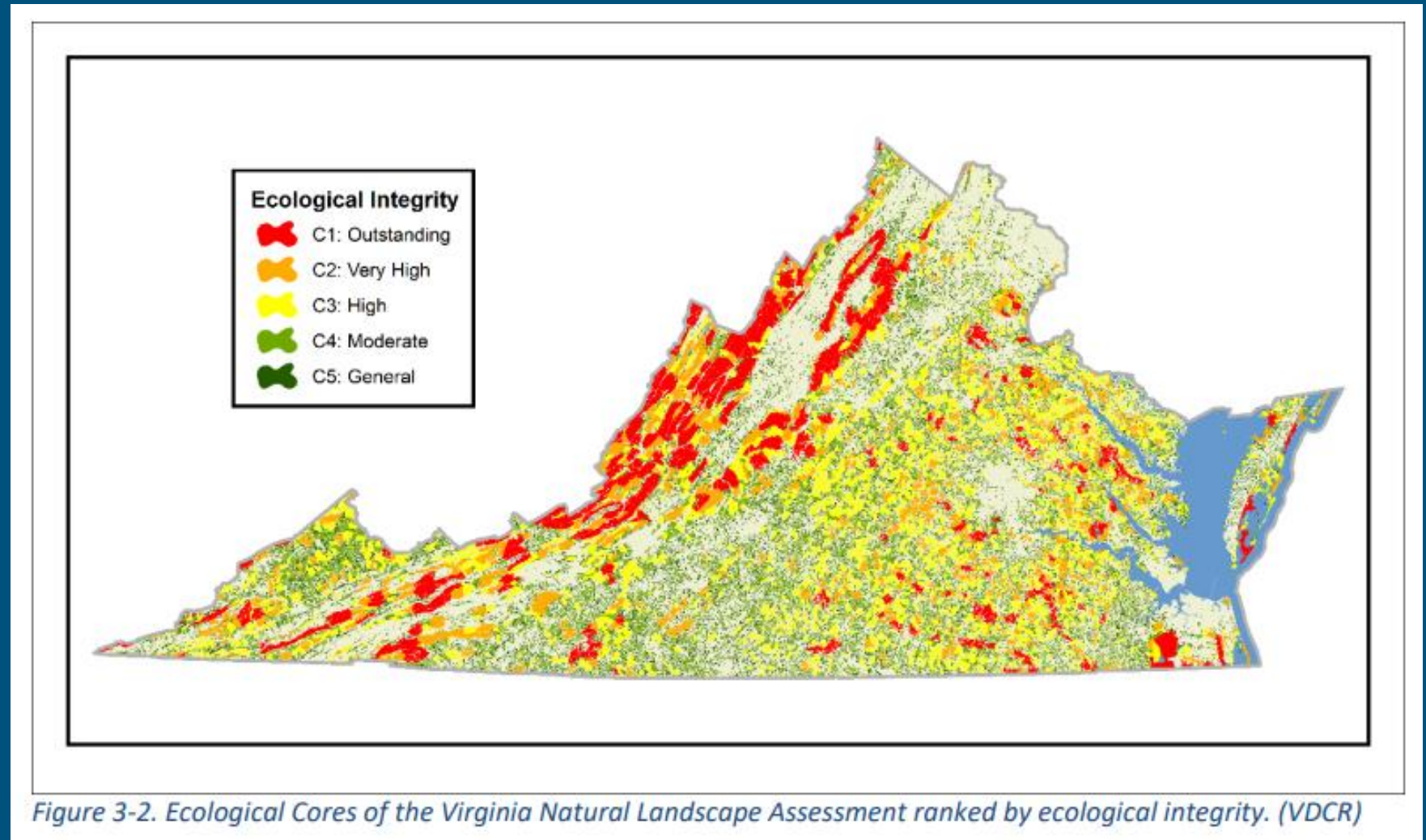
PEC Regional Conservation Status

How can we strategically prioritize conservation to maintain and enhance landscape connectivity?



Statewide Modelling for Strategic Prioritization

Ecological Cores



Statewide Modelling for Strategic Prioritization

Natural Lands Network

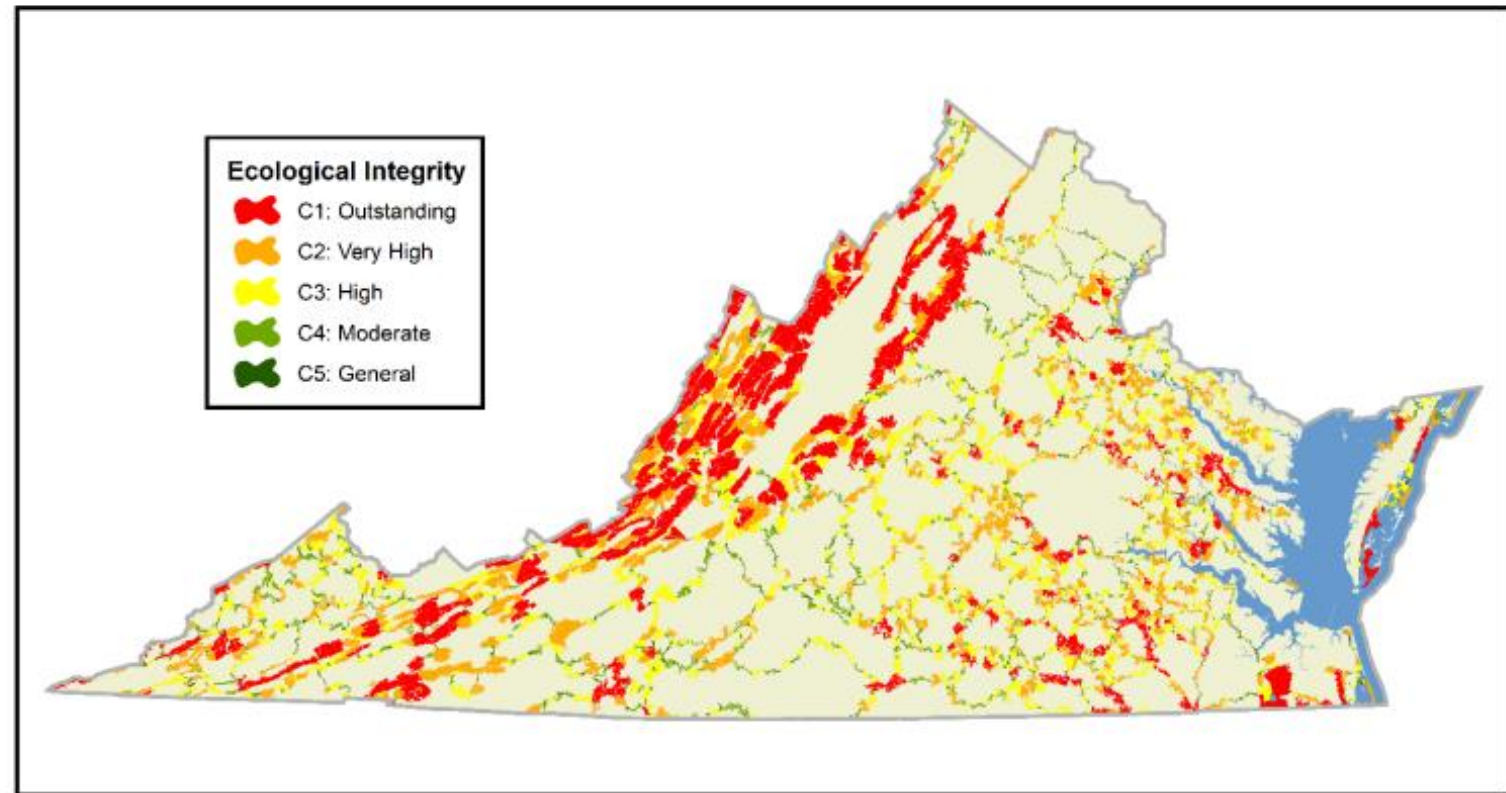


Figure 3-3. The Natural Lands Network is a subset of the Virginia Natural Landscape Assessment that shows connections between all the highest ranked Ecological Cores (C1 and C2). These corridors of natural land also include lower-ranked cores that intersect them. (VDCR)

Statewide Modelling for Strategic Prioritization

Biodiversity Resilience Corridors

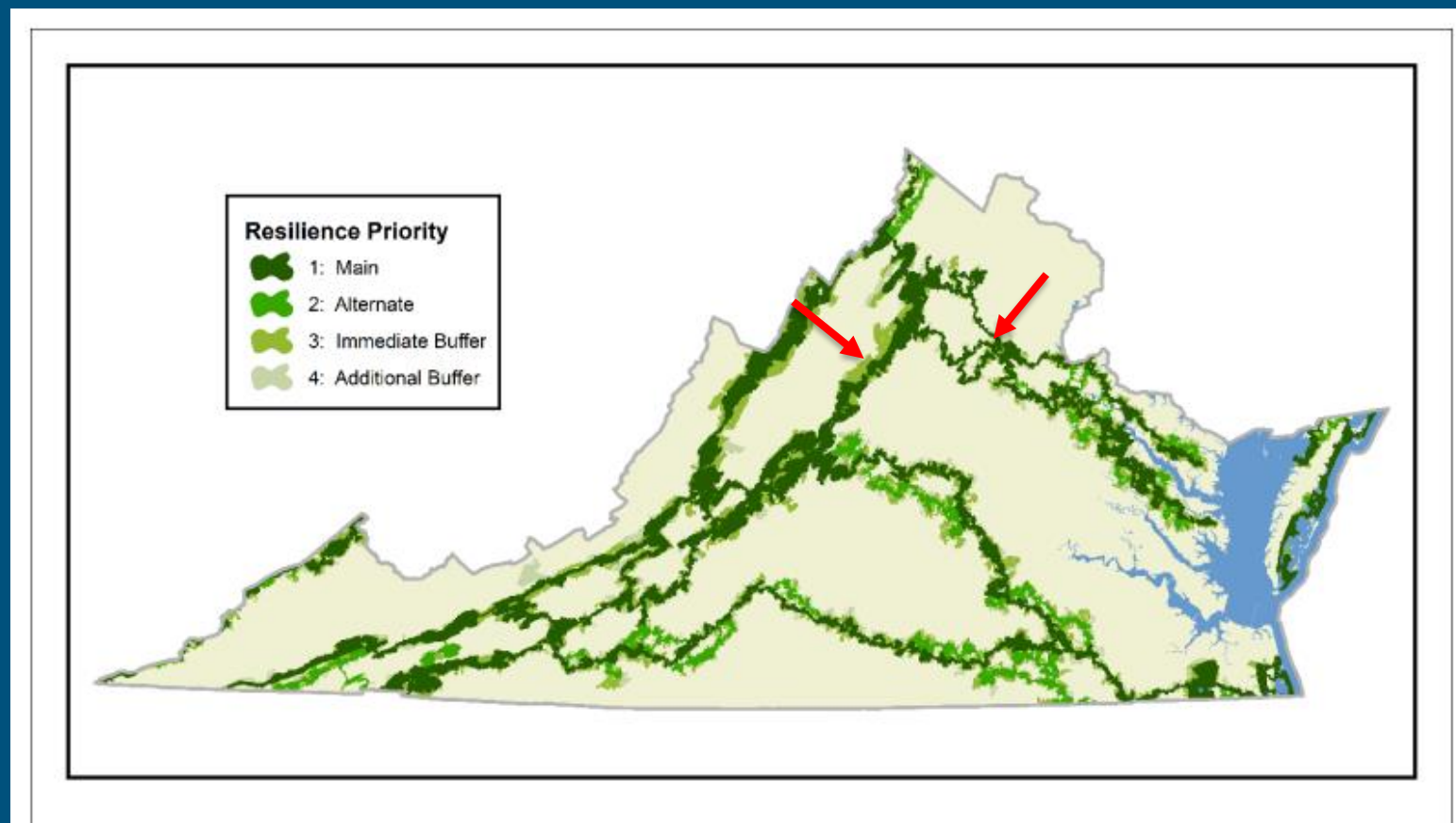


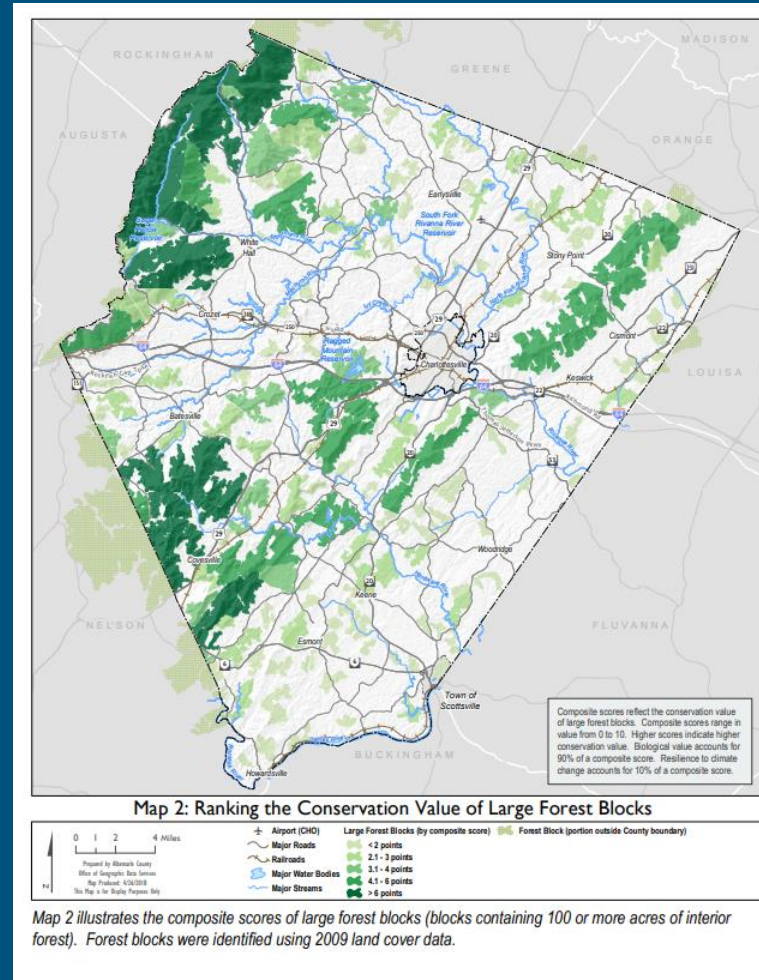
Figure 3-5. The Wildlife Biodiversity Resilience Corridors ranked by priority. These Wildlife Biodiversity Resilience Corridors include a new set of corridors for the upper peninsulas, on either side of the Rappahannock River, that were developed using the same methodology as for the ConserveVirginia Resilience Corridors.

Local Planning & Modelling

Albemarle County Biodiversity Action Plan



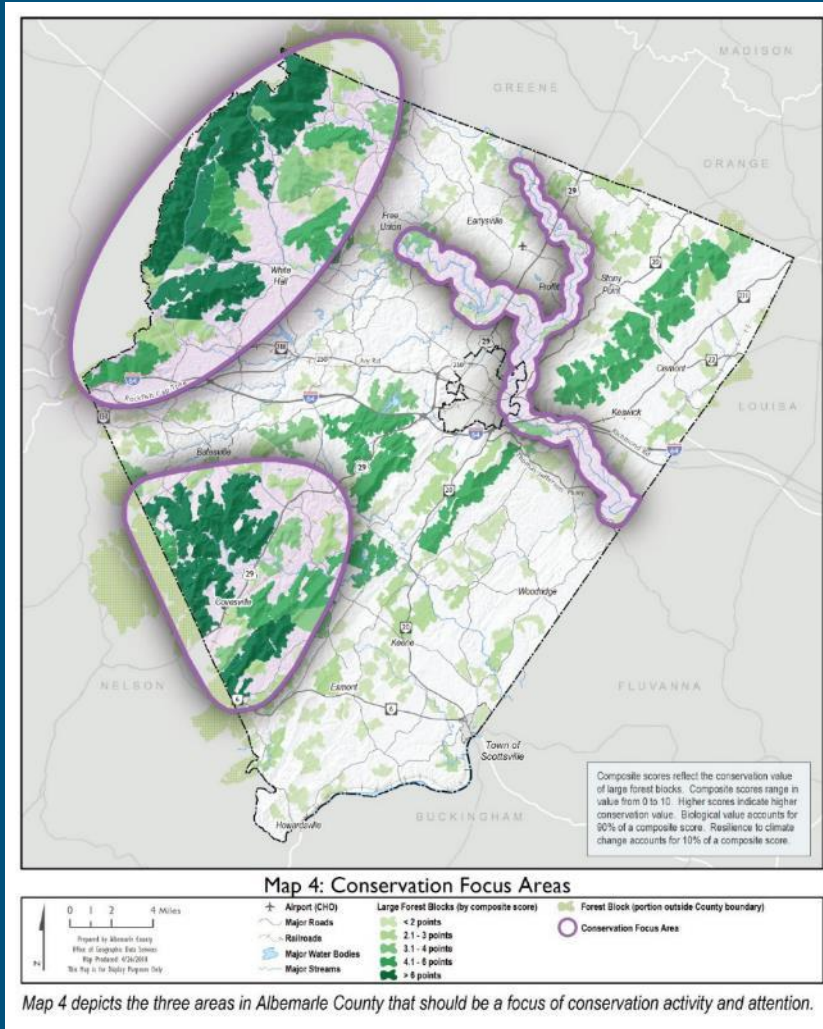
Albemarle County Biodiversity Action Plan June 2018



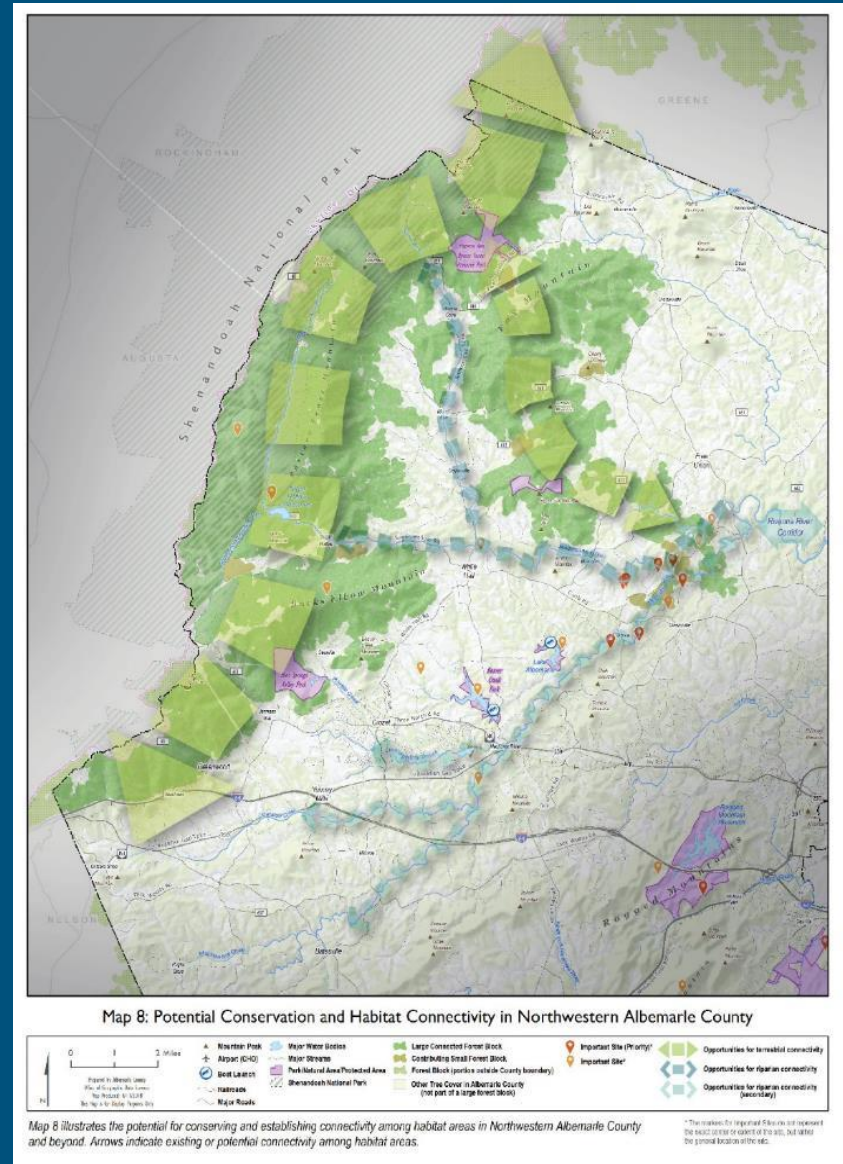
Map 2 illustrates the composite scores of large forest blocks (blocks containing 100 or more acres of interior forest). Forest blocks were identified using 2009 land cover data.

Local Planning & Modelling

Albemarle County Biodiversity Action Plan



Conservation Focus Areas

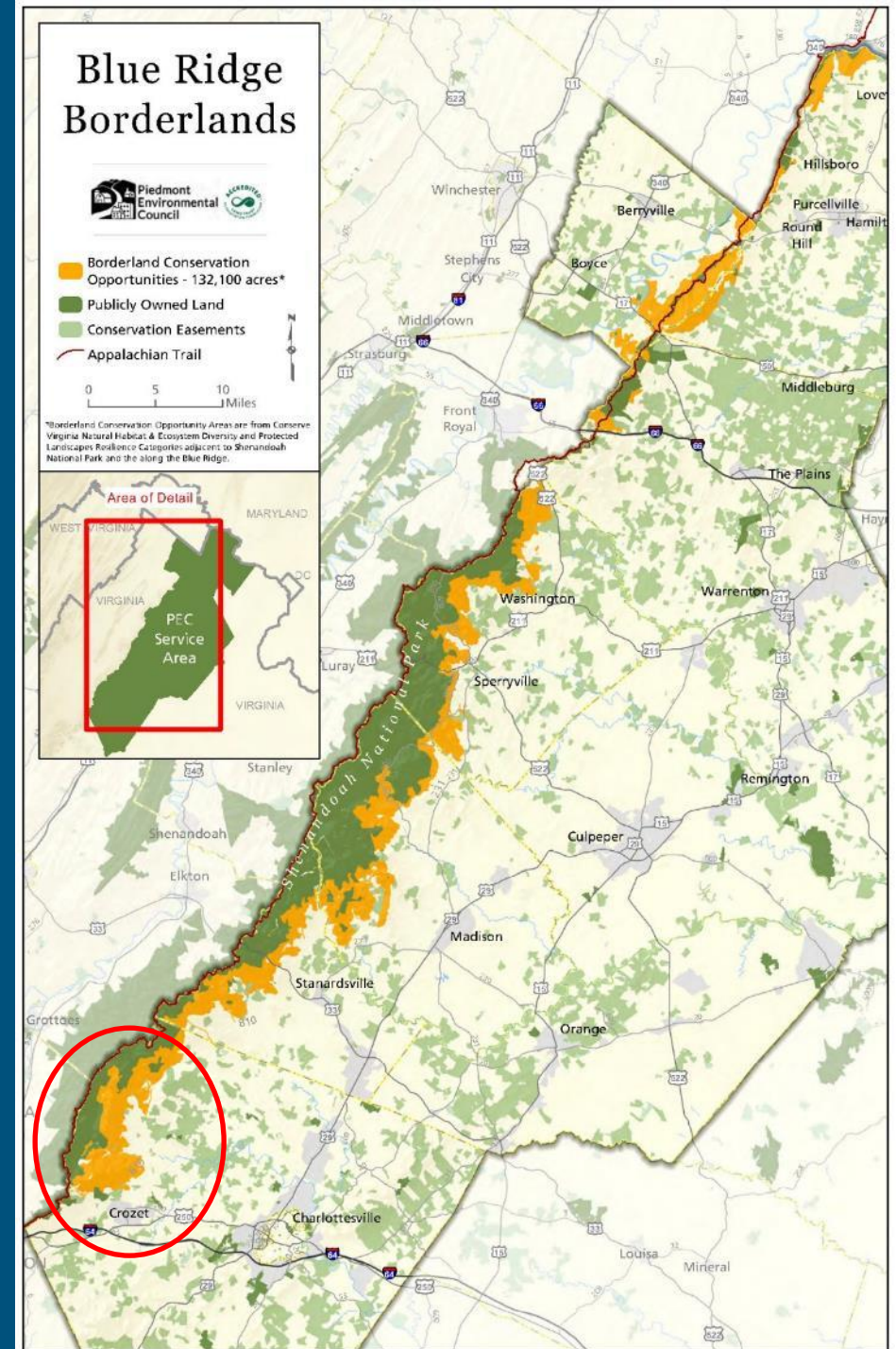


NW Albemarle Terrestrial & Riparian Connectivity Opportunities

Blue Ridge Borderlands

Identify & prioritize strategic conservation opportunities adjacent to public lands along the Blue Ridge.

- ❖ Expand the corridor with forestland conservation
- ❖ Enhance public access
- ❖ Protect & restore aquatic habitat
- ❖ Capacity building
- ❖ Funding / policy innovation

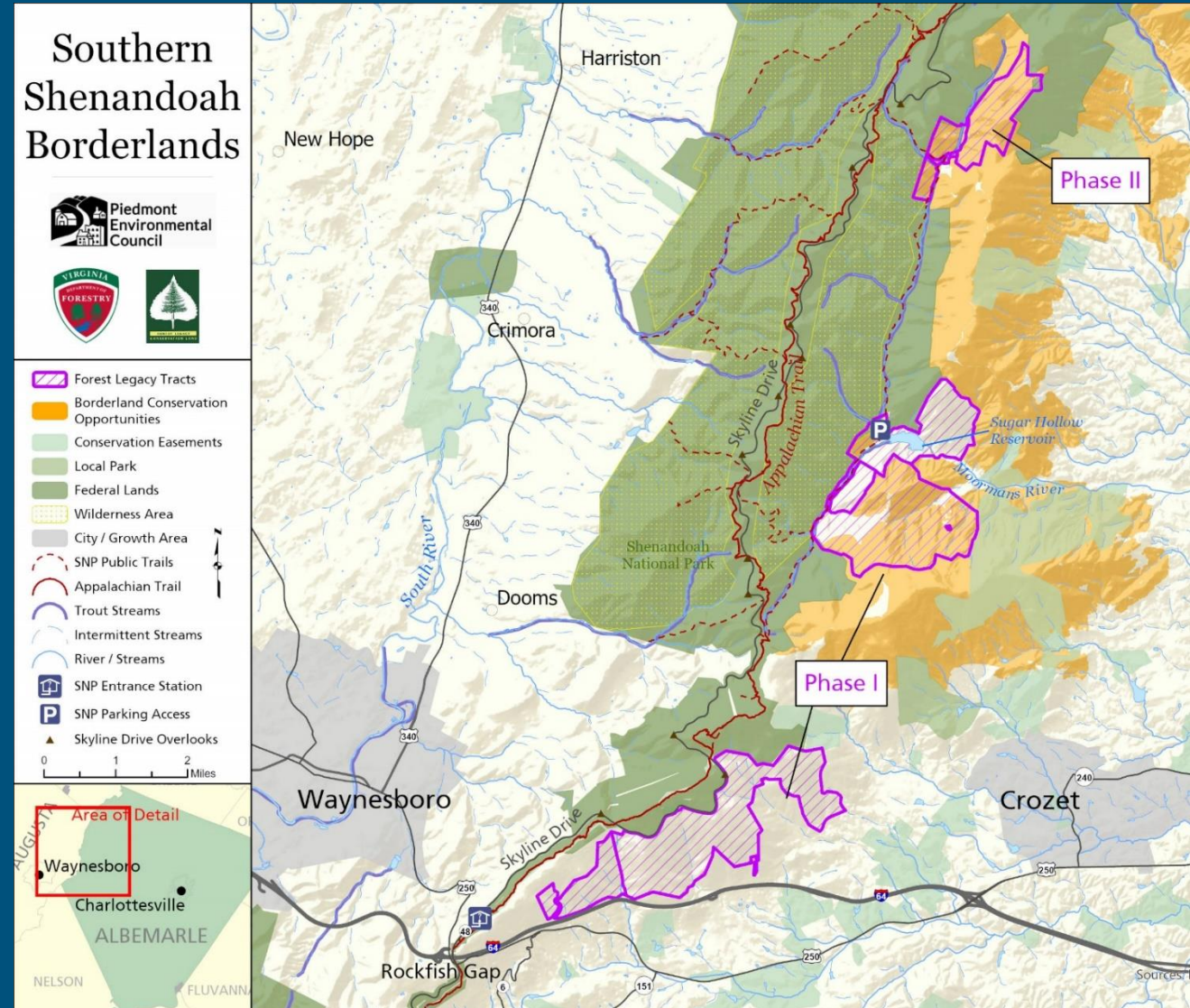


Conserving the Southern Shenandoah Borderlands

Forest Legacy Projects

- ❖ Phase I (2023)
 - ❖ 4 landowners and >4,300 acres of forestland
- ❖ Phase II (2024)
 - ❖ 1 landowner and 767 acres of forestland

>5000 acres of privately owned forestland adjacent to Shenandoah will be permanently protected.





Cedar Mountain

Skyline Drive

Overlook

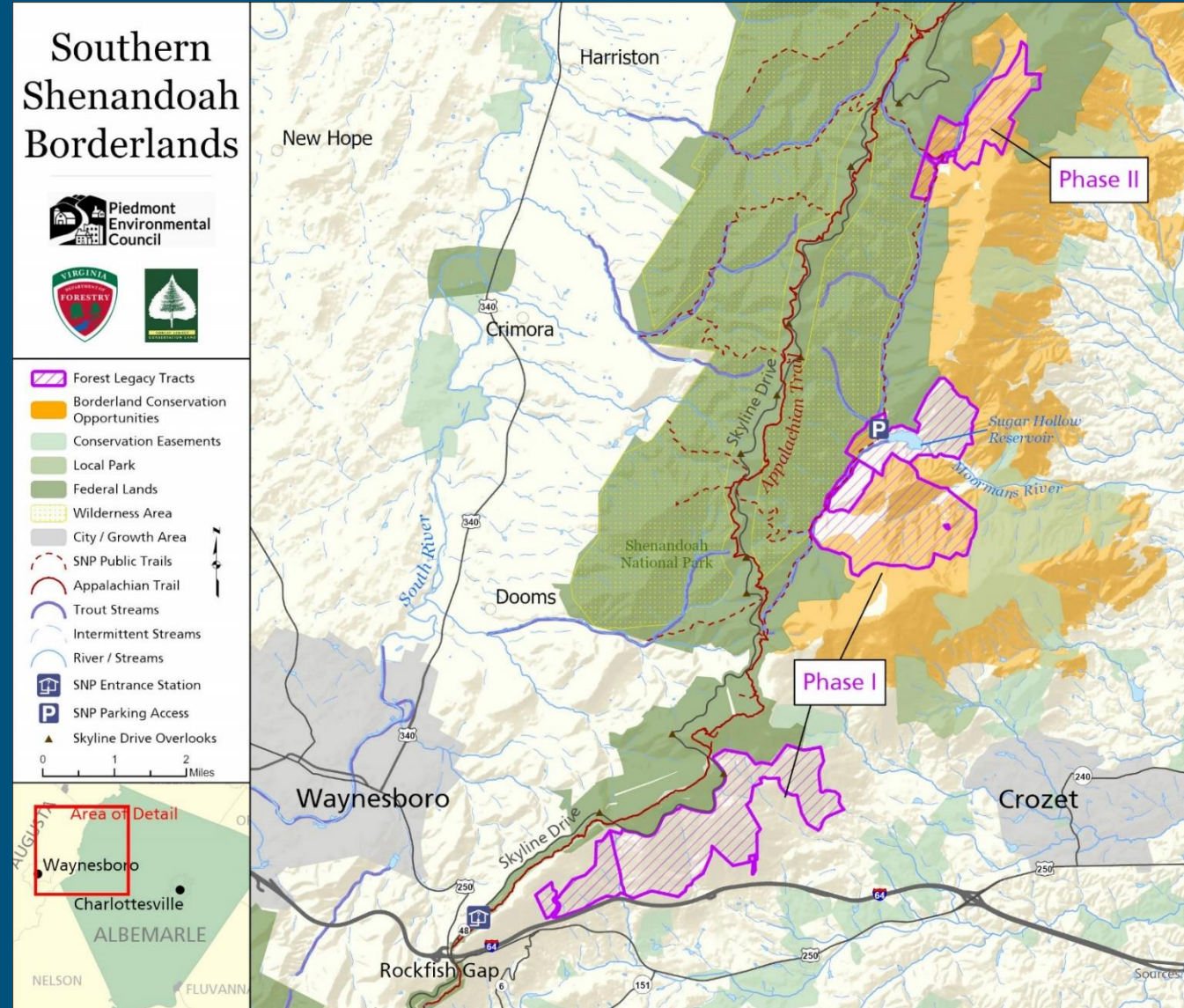
Conserving the Southern Shenandoah Borderlands

Forest Legacy Projects

- ❖ Supporting conservation of the globally significant Appalachian Corridor

AND

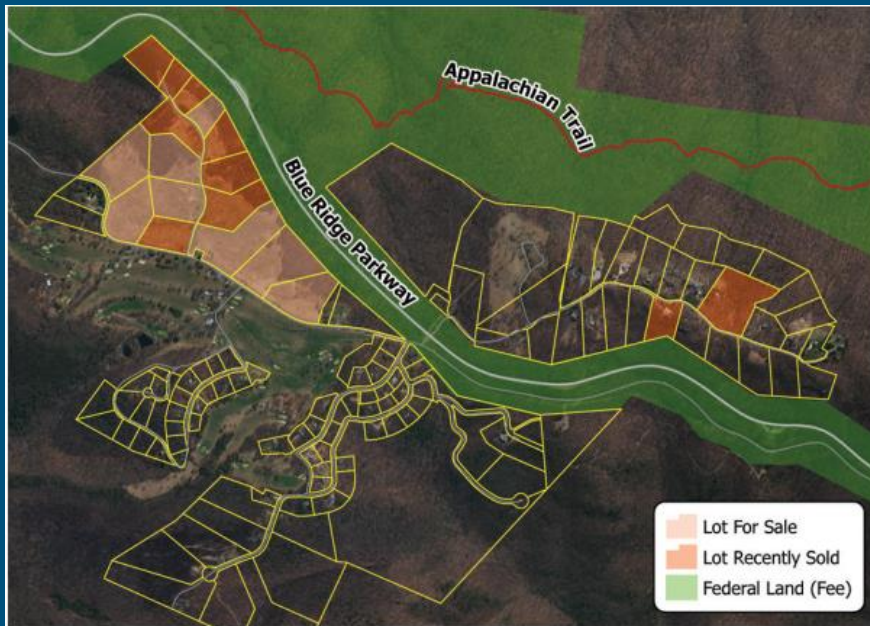
- ❖ Enhancing public access by formalizing trail ROWs



Conserving the Southern Shenandoah Borderlands

Forest Legacy Projects

- ❖ Minimizing parcelization and development potential



127 small residential lots adjacent Blue Ridge Pkwy, 2.5 miles south of project. (Photo by VDOF; realty site elkrockmeadow.com)



Parcelization along the boundary of the Nat'l Park, 8 miles north of Cedar Mtn. (Photo by Kim Biasioli, PEC)

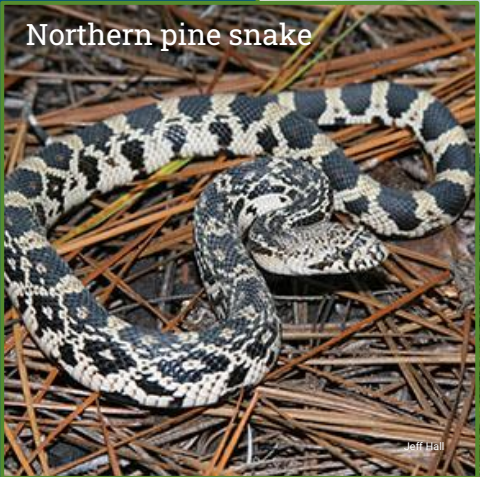
Conserving the Southern Shenandoah Borderlands

Forest Legacy Projects



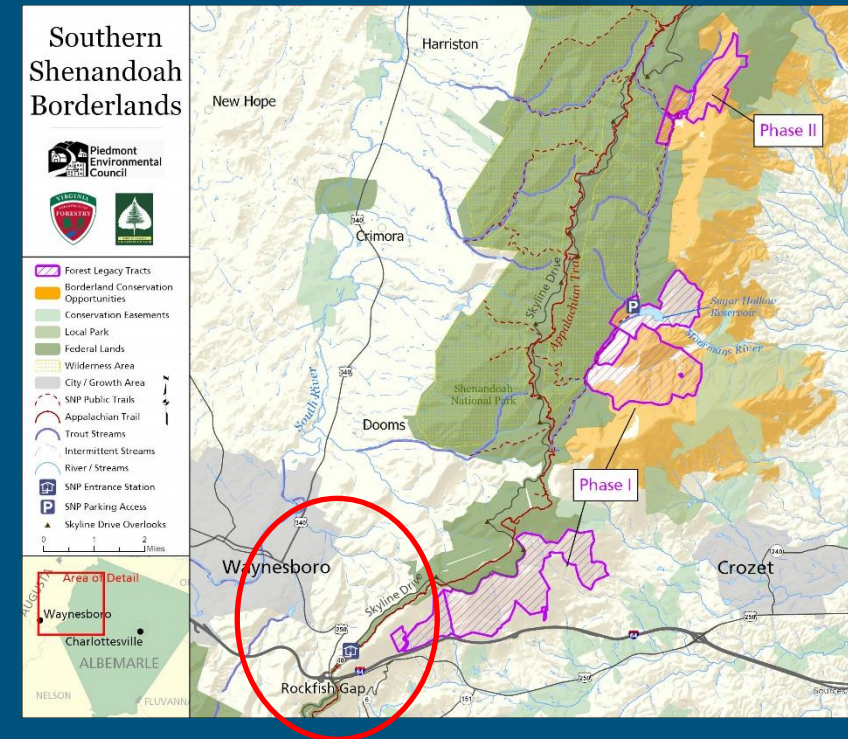
Conserving the Southern Shenandoah Borderlands

Forest Legacy Projects



Afton Mountain/Rockfish Gap Conservation Collaboration

- ❖ Afton Mountain at Rockfish Gap is a chokepoint for terrestrial wildlife.
- ❖ Building a coalition of non-profit, state, & federal partners to develop solutions.
 - ❖ Broaden the corridor of protected land, AND
 - ❖ Identify potential infrastructure solutions to provide safe passage across I-64.

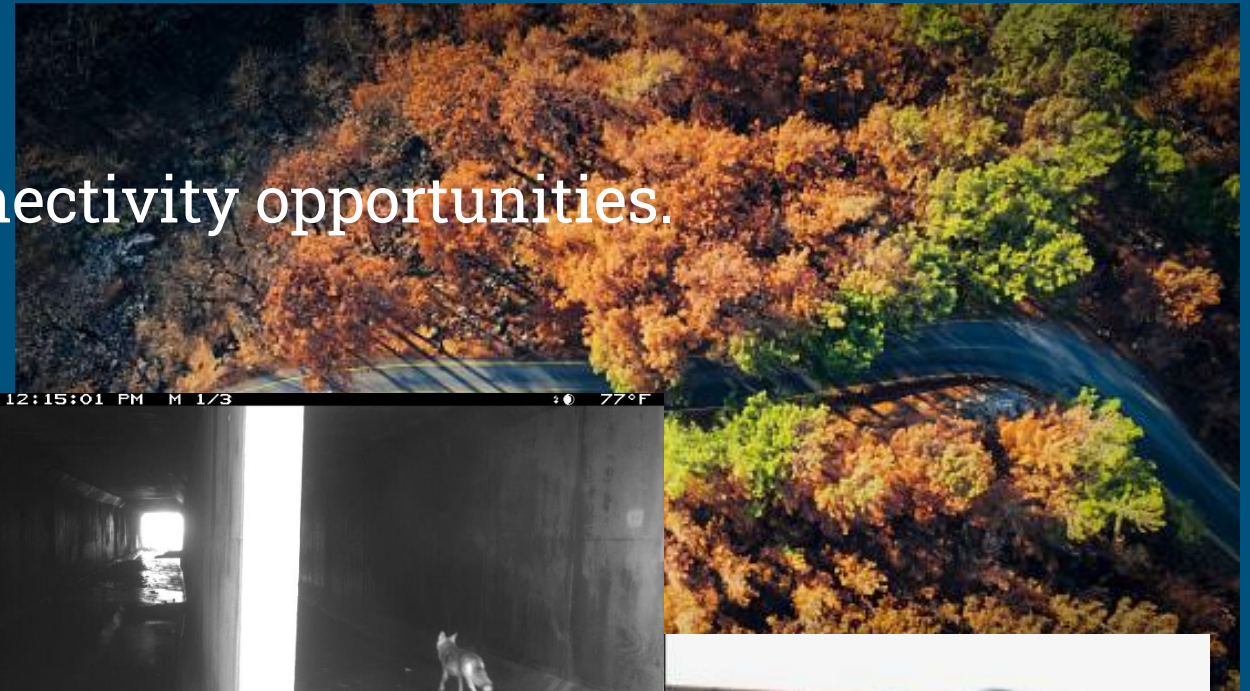


Enhancing Wildlife Crossings

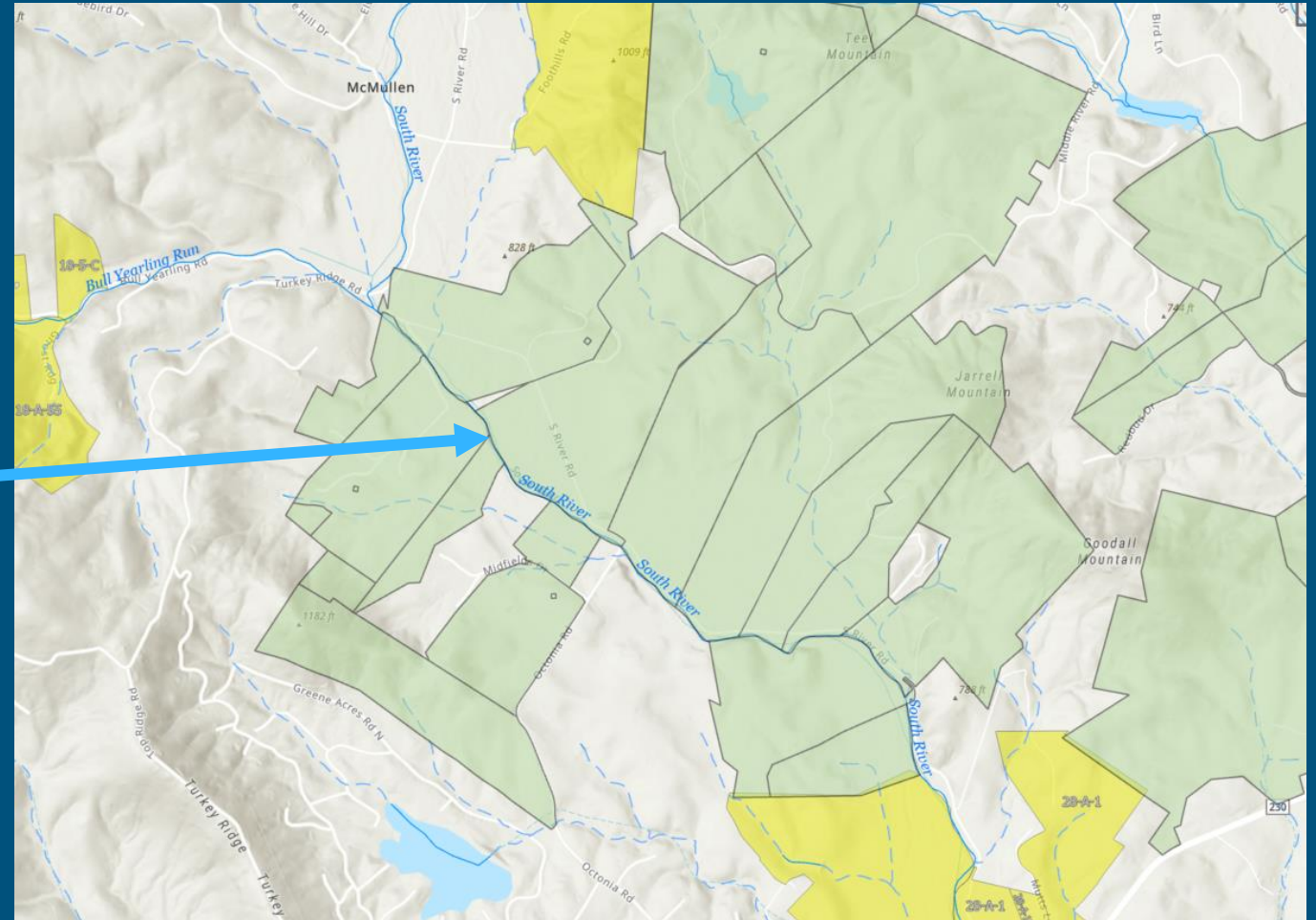
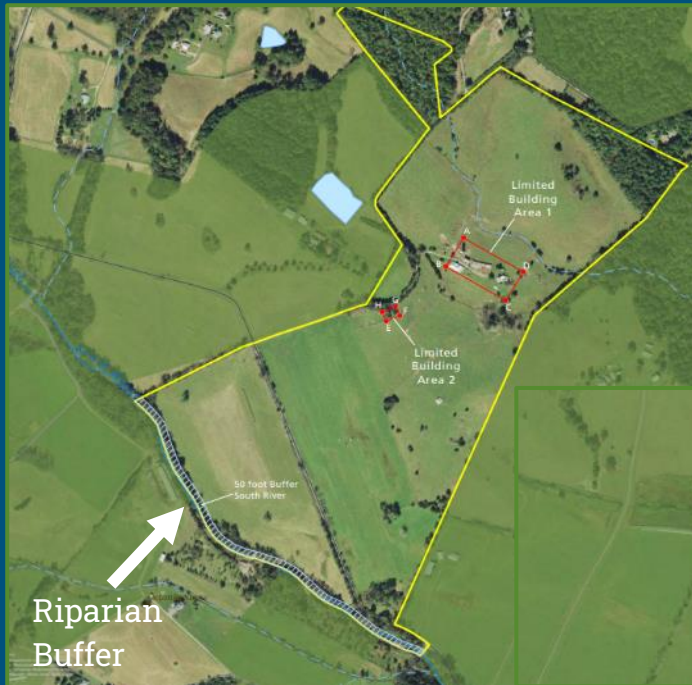
- ❖ Roads are a barrier for wildlife movement.

AND

- ❖ Riparian underpasses are connectivity opportunities.



Building a Riparian Corridor Collective Impact



South River Area in Greene County
>2000 acres conserved and counting...

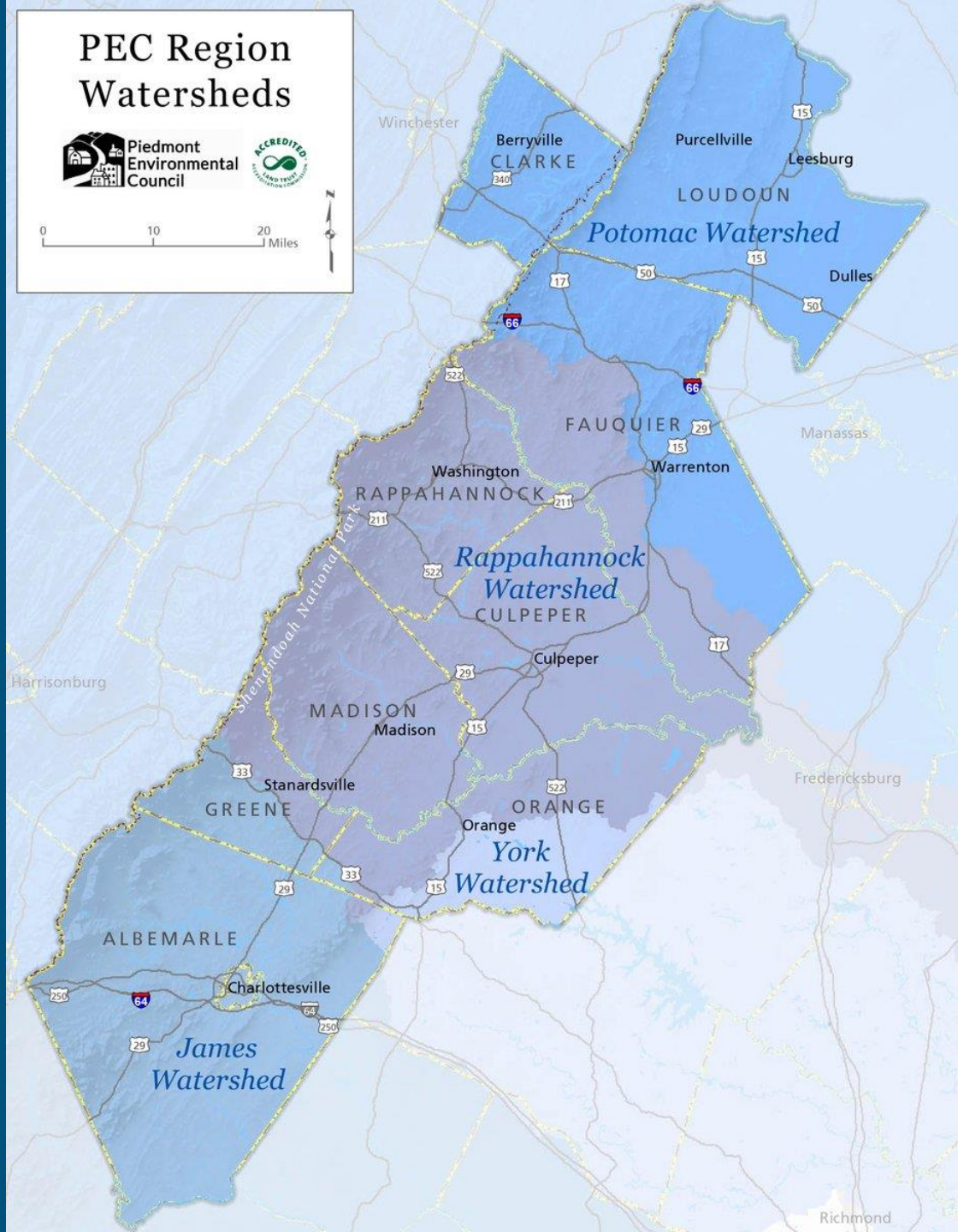
A Mosaic of Forest & Farmland



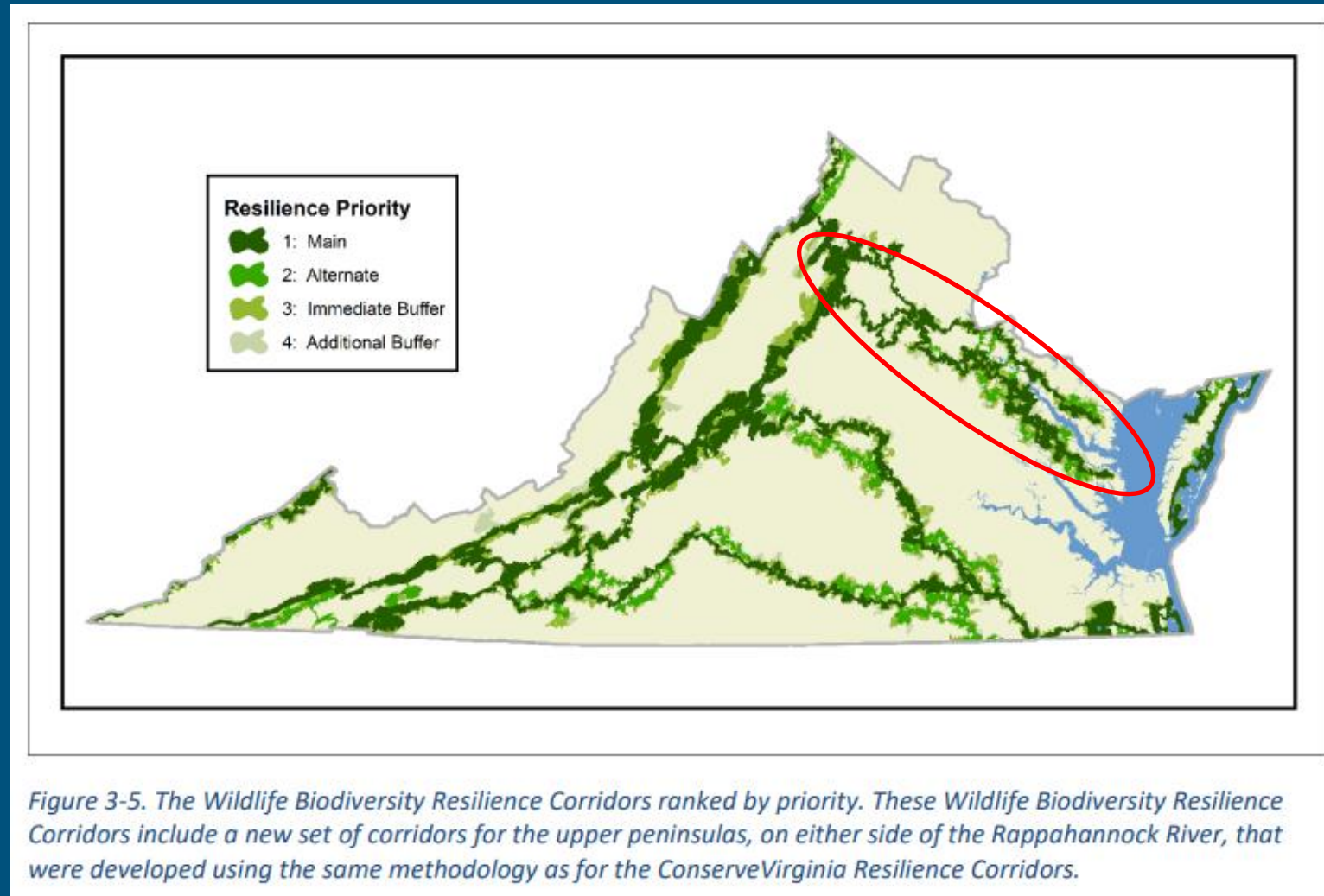
Plantings for the Piedmont Watershed-based Restoration Initiatives & Partnerships



Volunteers plant a riparian buffer.



Rappahannock River Resilience Corridor



Blue Ridge to the Bay

Accelerating conservation in the Upper Rappahannock-Rapidan watershed

- ❖ Conserving working farmland
- ❖ Improving water quality
- ❖ Restoring wildlife habitat
- ❖ Increasing public access
- ❖ Preserving historic & cultural resources



Rappahannock River Watershed Farmland Protection

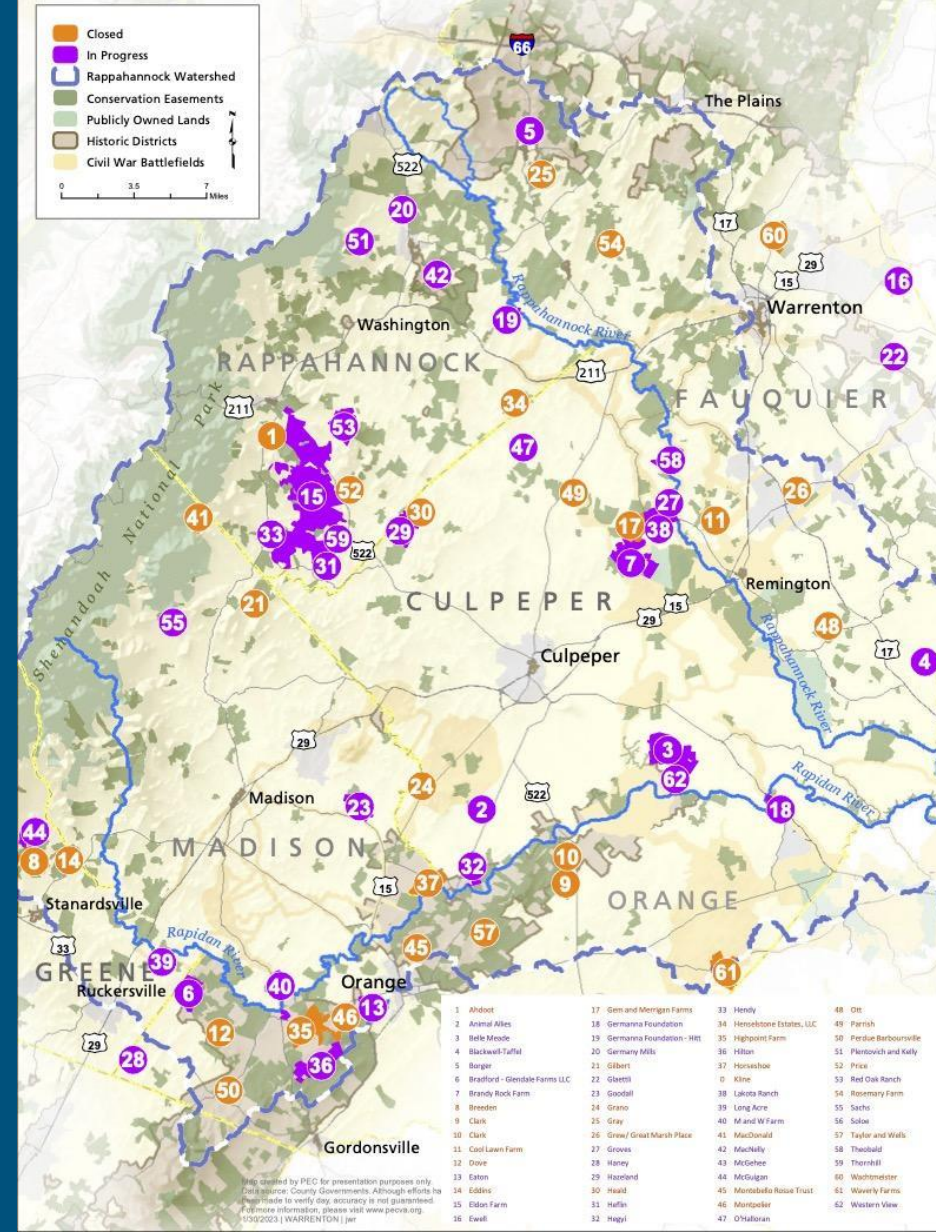
- ❖ Agricultural Land Easement (ALE) Program
- ❖ Virginia Land Conservation Foundation (VLCF)

PEC has secured 7.4M through these programs to protect 3,700 acres of working farmland.

Volgenau Foundation
Rappahannock Rapidan
Conservation Initiative
Conserve and restore working farmland, historic battlefield lands, native habitat and water resources

Piedmont Environmental Council
Volgenau

Area of Detail
PEC Service Area



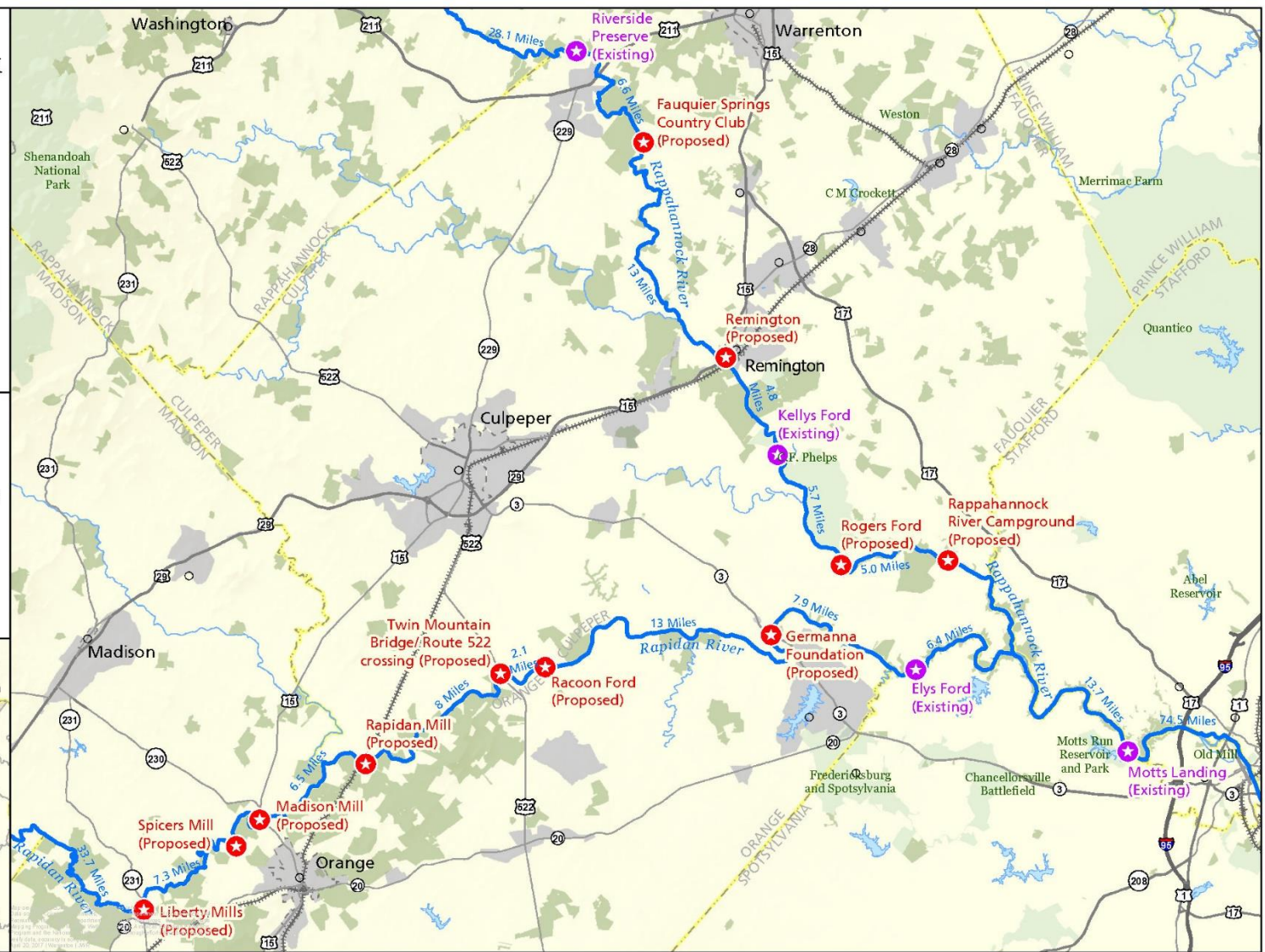
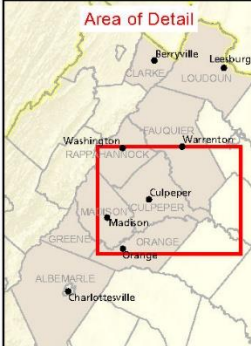
Rappahannock River Watershed Public Access



Rappahannock and Rapidan River Public Access Points



- ★ Existing Access Points
- ★ Proposed Access Points
- Conservation Easements
- Publicly Owned Land
- Growth Areas / Towns



Protection + Stewardship

Layering Conservation Tools



The Virginia Grassland Bird Initiative

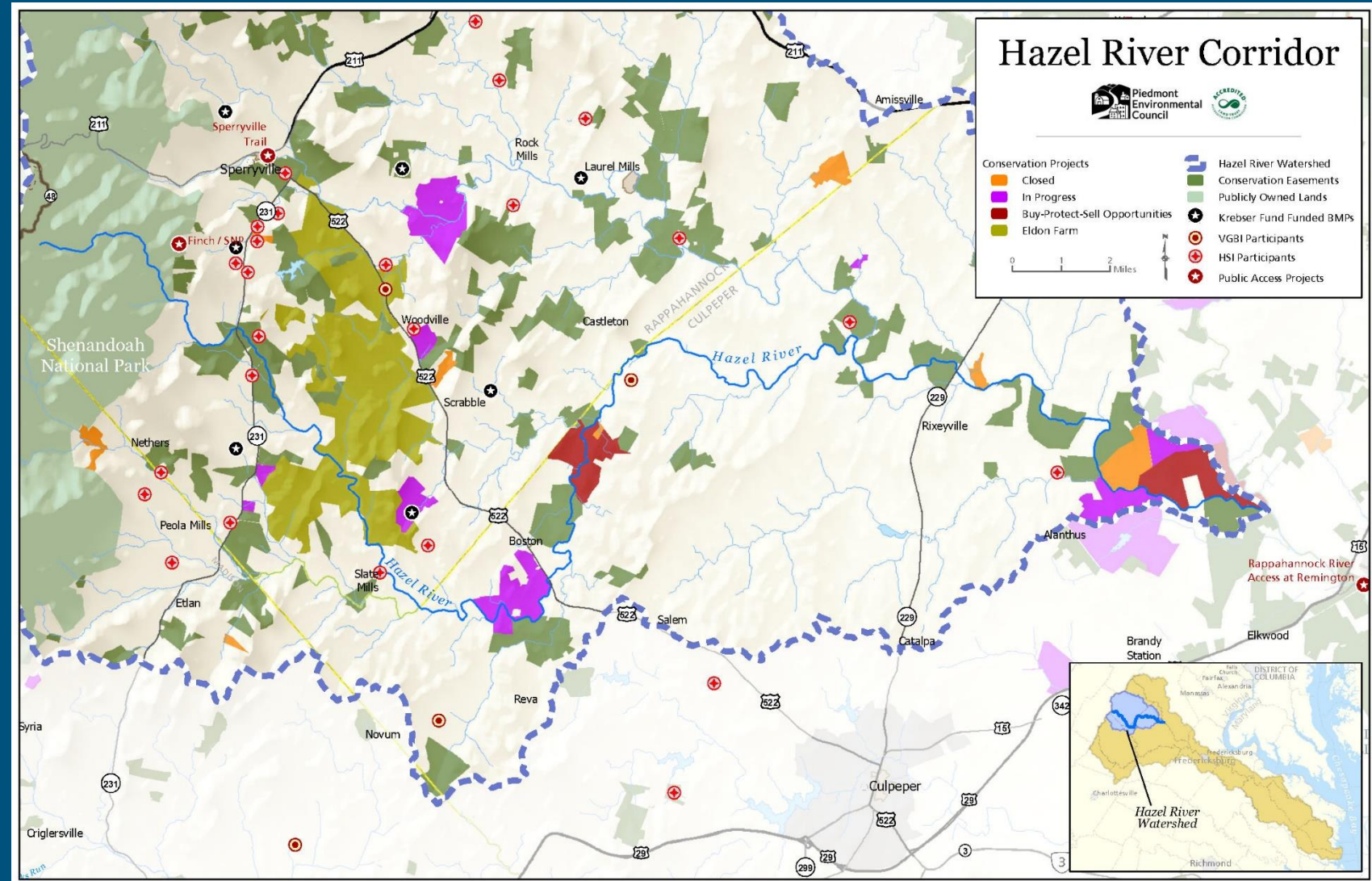
Supporting bird-friendly practices on working lands



Protection + Stewardship

Layering Conservation Tools

- ❖ Conservation easements
- ❖ Tree Planting
- ❖ Public Access
- ❖ Grassland Bird Habitat Restoration



Working collectively to protect our land & water



Questions?

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