



South Atlantic Landscape Conservation Cooperative (LCC)

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12-4-2017



Overview

- South Atlantic LCC
- South Atlantic Conservation Blueprint
- Blueprint implementation strategy
- Southeast Conservation Adaptation Strategy (SECAS)

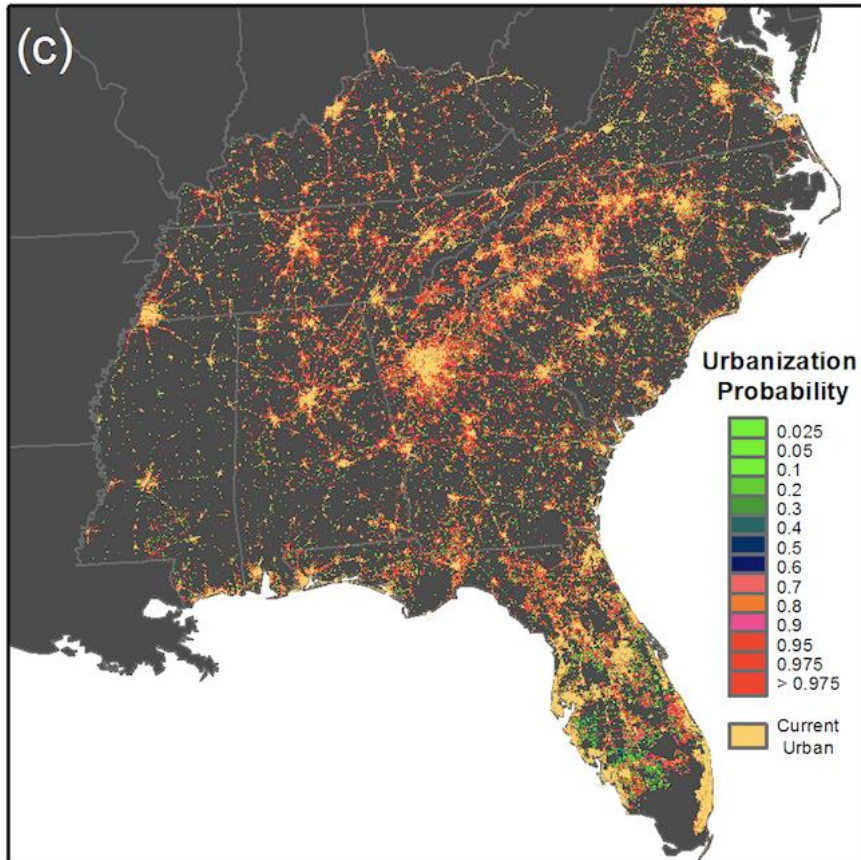




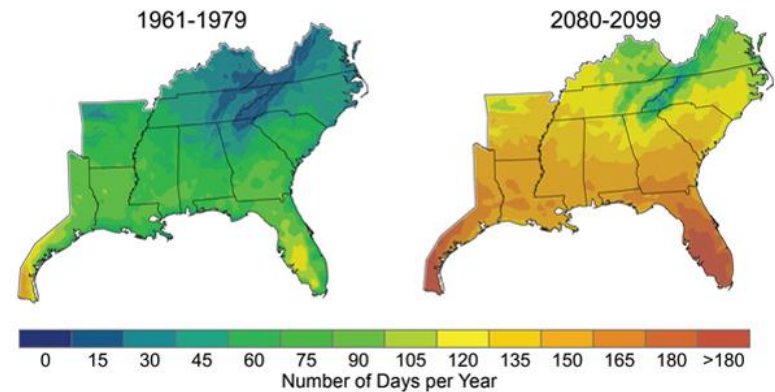
What is the South Atlantic LCC?

- A forum in which federal and state agencies, non-profits, communities, and individuals work together to:
 - develop a shared vision of landscape sustainability,
 - cooperate in its implementation,
 - and collaborate in its refinement.

Why cooperate?



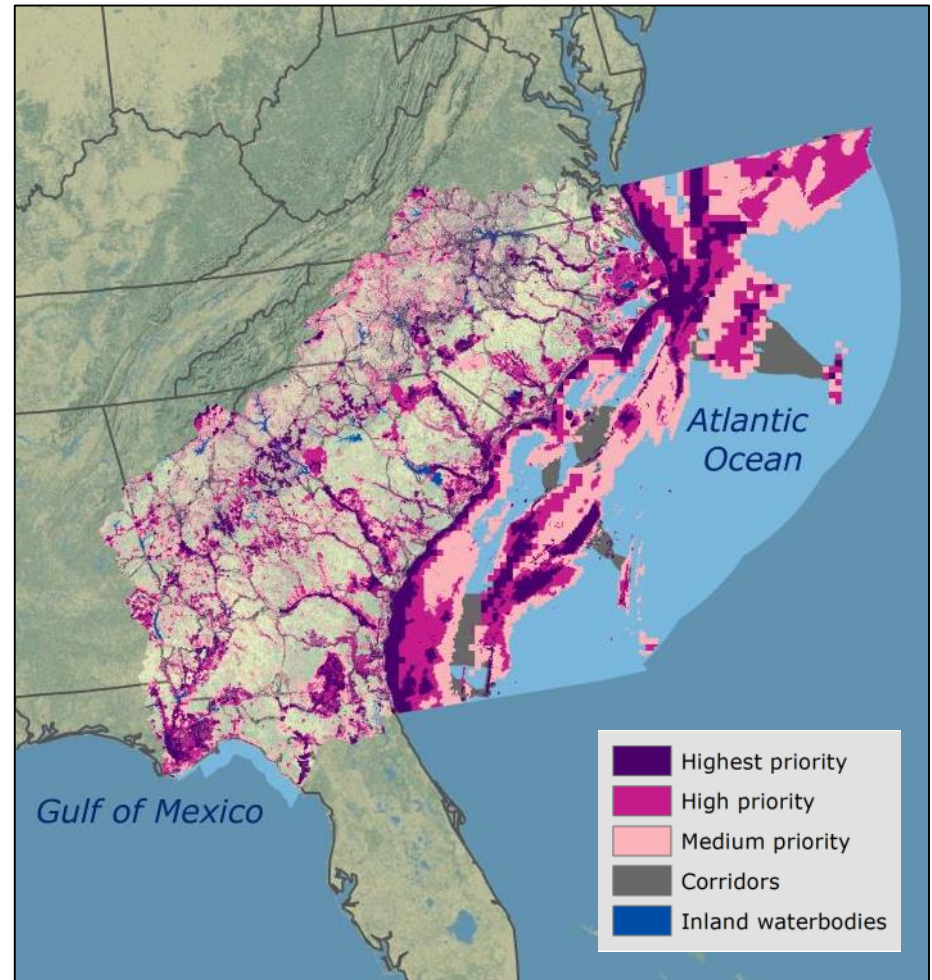
Days per year with peak temperature over 90° F



What does the South Atlantic LCC do?

Our mission

- To facilitate conservation actions that sustain natural and cultural resources, guided by a shared adaptive blueprint



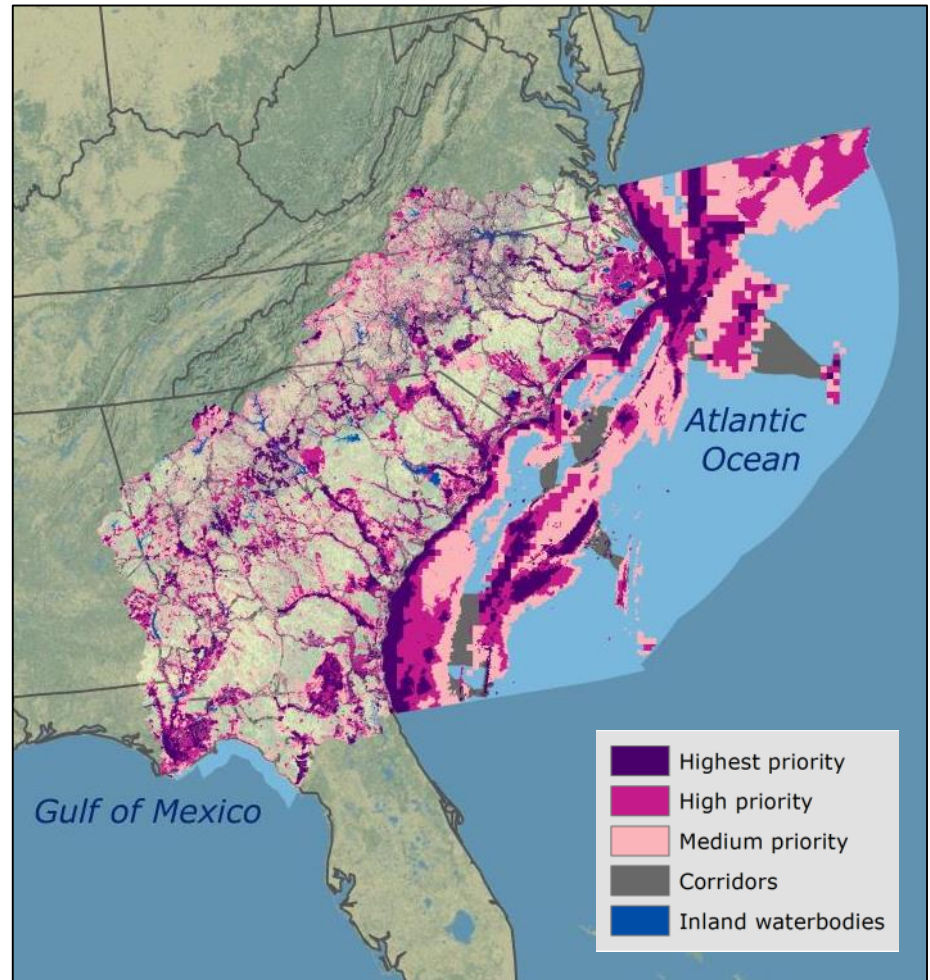
What does the South Atlantic LCC do?

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What is the Blueprint?

- A living spatial plan prioritizing opportunities for shared conservation action in the face of future change

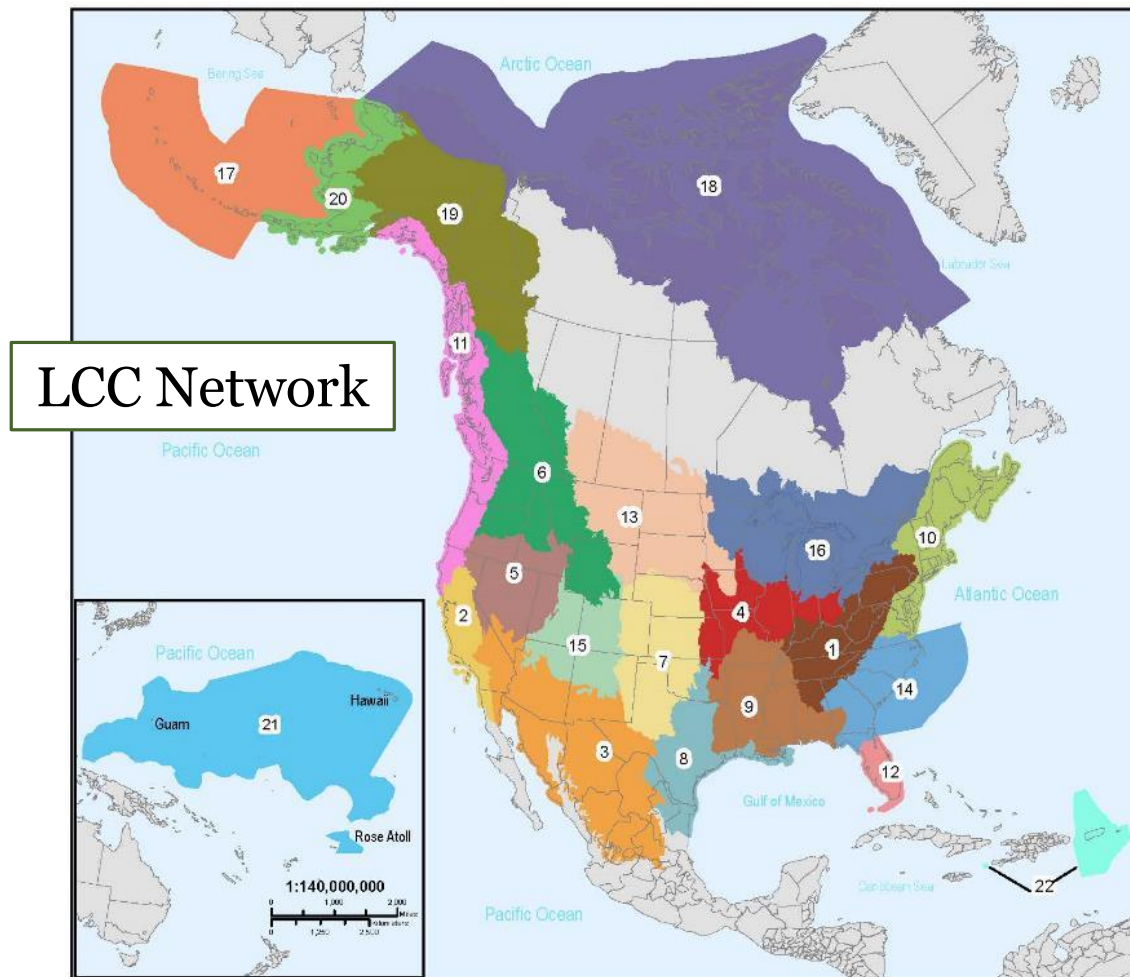


How is the South Atlantic LCC governed?

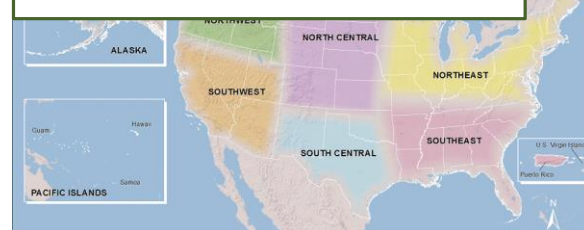
The Steering Committee



Part of a larger network



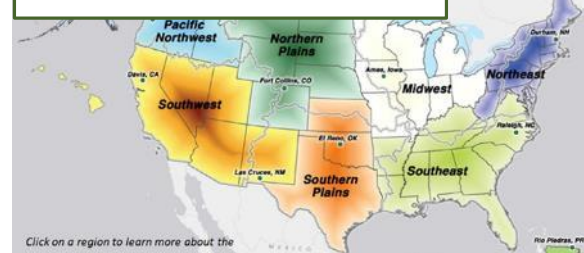
Climate Science Centers



NOAA RISAs



USDA Climate Hubs



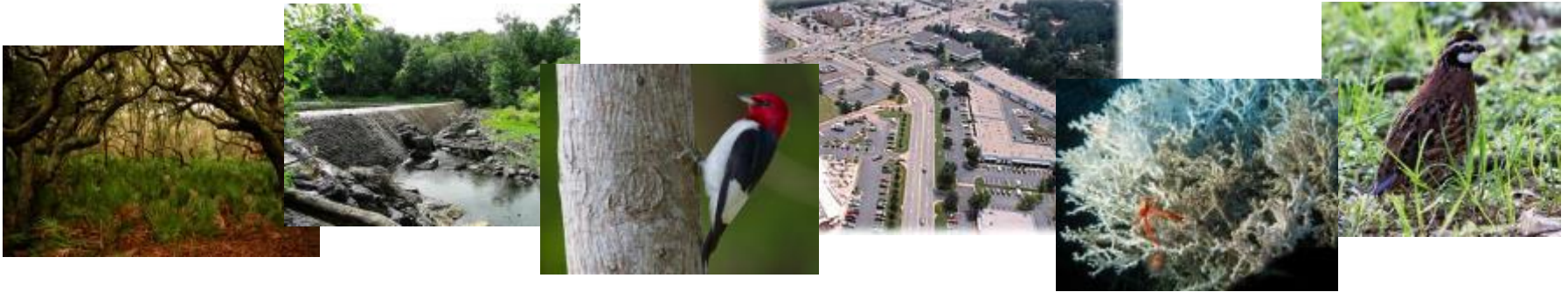


Our products

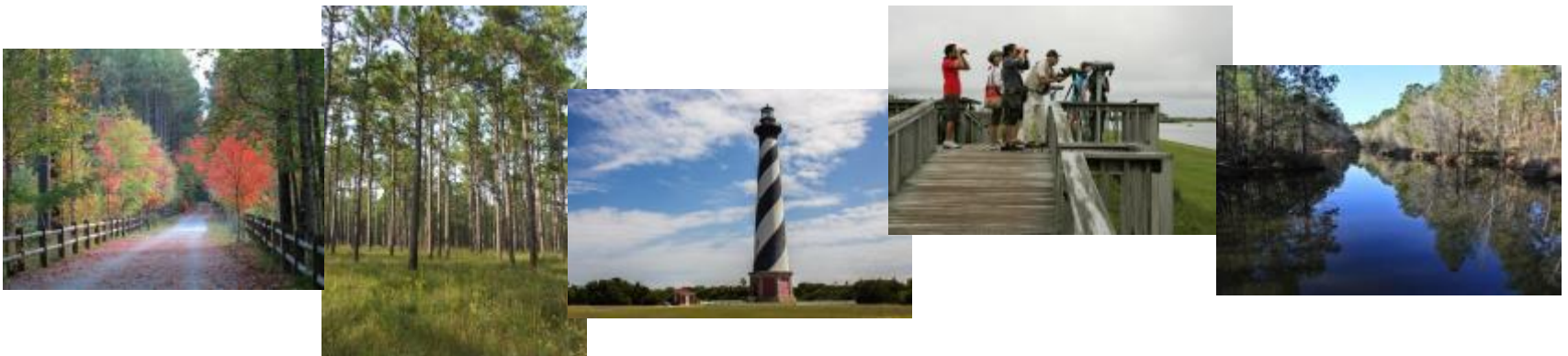
- Indicators
- The State of the South Atlantic
- The Blueprint

Indicators

- Integrity of natural resources



- Integrity of cultural resources

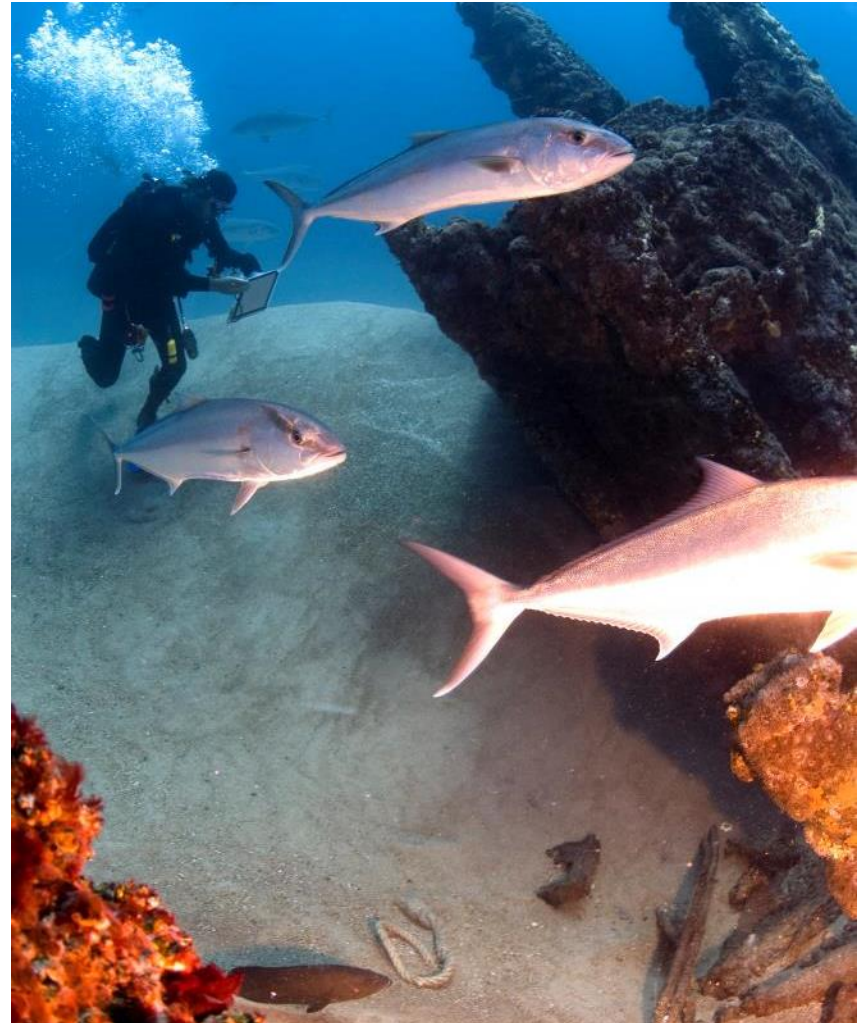


Indicator criteria

- Ecological
- Practical
- Social

Marine Indicators

- **Marine mammals:** index of dolphin and whale density based on monthly predictions
- **Potential hardbottom condition:** index of potential condition of deepwater corals, solid substrate, and rocky outcroppings
- **Marine birds:** index of highly productive areas for birds that feed exclusively or mainly at sea



State of the South Atlantic

State of the South Atlantic



South Atlantic ecosystem health scores

Overall, the South Atlantic scored a C. Piedmont areas scored the lowest, likely due to impacts from their major urban megaregions. The Marine region scored the highest; however, it did not include fishing impacts. The Coastal Plain scores were in the middle. These scores show that, while the South Atlantic is not completely healthy, there's hope for making future improvements.

North Piedmont: Home to Charlotte, Raleigh, and large areas of upland hardwood forest. People who live and work in urban areas will help decide the future of this region.

South Piedmont: Home to Atlanta and diverse watersheds draining into the Atlantic and Gulf. Balancing water needs for people and species continues to be a challenge.

North Coastal Plain: Home to the Outer Banks and extensive estuaries. Sea-level rise is predicted to heavily impact this particularly flat region.

Central Coastal Plain: Home to Wilmington, Myrtle Beach, and large protected wetland areas. Sea-level rise, tourism, and changing agricultural practices continue to influence ecosystem health.



South Coastal Plain: Home to Savannah, Jacksonville, and a network of protected barrier islands. Partnerships are working to conserve this region's largest river floodplains.

Gulf Coastal Plain: Home to rural Southwest Georgia and extensive conservation lands in the Big Bend of Florida. Sea-level rise and upstream agriculture continue to impact coastal protected areas.

Marine: Home to rich fisheries, deepwater coral, diverse seabirds, and important migratory fish, whales, and turtles. Ocean acidification and increased energy development are major emerging threats.

A snapshot in time

This assessment evaluates the ecological integrity of the South Atlantic using natural and cultural resource indicators. The indicators are scored across the entire region, for individual ecosystems, and within subregions following watershed and ecoregional boundaries. All indicators are regularly tested and revised, and this first report uses the best metrics available today.

Toward conservation action

Measuring these indicators communicates the status of the region's land and waters, helping develop a more unified vision for thriving ecosystems that support communities and economies. People and organizations are working together on cross-boundary conservation actions through the South Atlantic LCC to improve ecosystem health in the face of unprecedented changes to the natural world.

Scoring & level of confidence

Each data-driven indicator score is based on the percent of an area in good condition, according to the best available science. Though all indicators were measured, some scores were omitted to provide a baseline for future comparison. Confidence values are qualitative estimates of uncertainty based on known issues with indicators and data sources.



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ECOSYSTEM

forested wetland



Floodplain forests, pocosins, & bays

These frequently flooded swamp forests occur across the region on both organic soils, like peatland pocosins and Carolina Bays, and mineral soils, like bottomland hardwood and floodplain forests. Though historically drained for timber production and agriculture, intact forested wetlands support ecological diversity and enhance water quality by filtering polluted runoff.

Interpreting the score:

Overall, this ecosystem scored a C. Piedmont areas scored the lowest, mostly driven by poor scores on low road density, the bird index, and aquatic connectivity. The North Coastal Plain scored the highest, mostly driven by better scores on low road density and aquatic connectivity. These results underscore the importance of efforts to restore the altered hydrology of forested wetlands in the South Atlantic.



- Forested wetland extent
- B Forested wetland birds
- Forested wetland amphibians
- D Low road density
- A Low-urban historic landscapes
- C Structural connectivity
- Resilient biodiversity hotspots
- D Fresh & saltwater connectivity
- D Resident fish connectivity



- Floodplain forests
- Pocosin wetlands
- Forest birds and waterfowl
- Large mammals
- Native cane
- Temporal flooding
- Saltwater intrusion

Restoring ancient soils

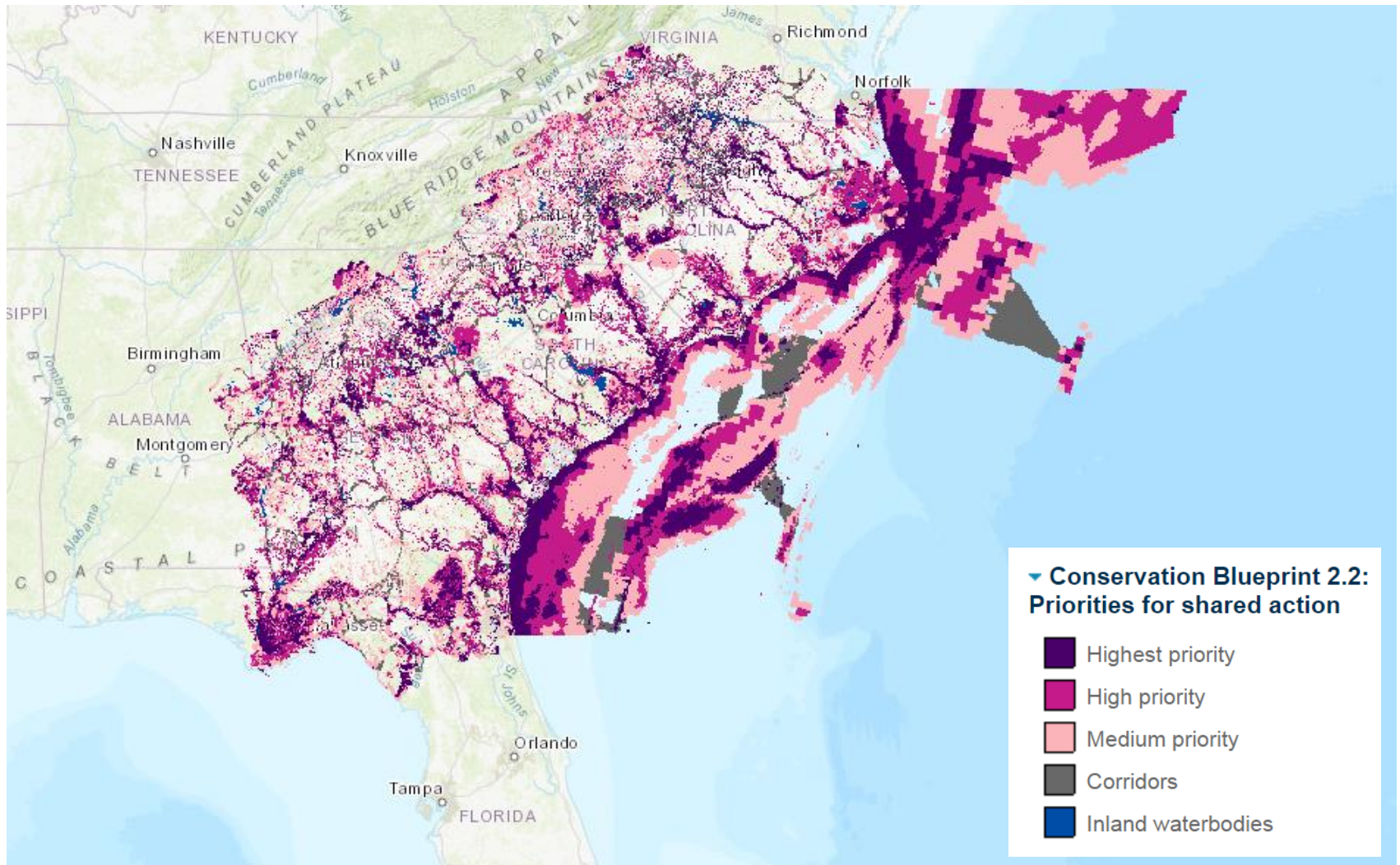
Thirty years ago, the Eastern North Carolina wetlands that now comprise Pocosin Lakes National Wildlife Refuge were drained for peat mining and agriculture. Catastrophic wildfires burned away feet of the resulting dry organic soil. The Refuge has since restored natural hydrology on nearly 30,000 acres, improving habitat quality, protecting against future fires, and sequestering carbon by rebuilding the soil.



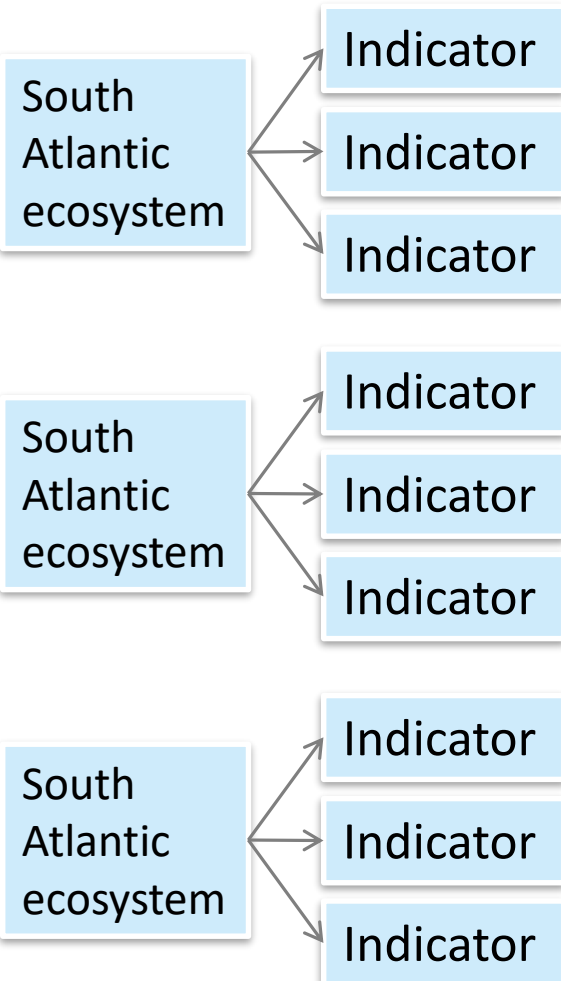
Steve Halderman/U.S. Fish and Wildlife Service

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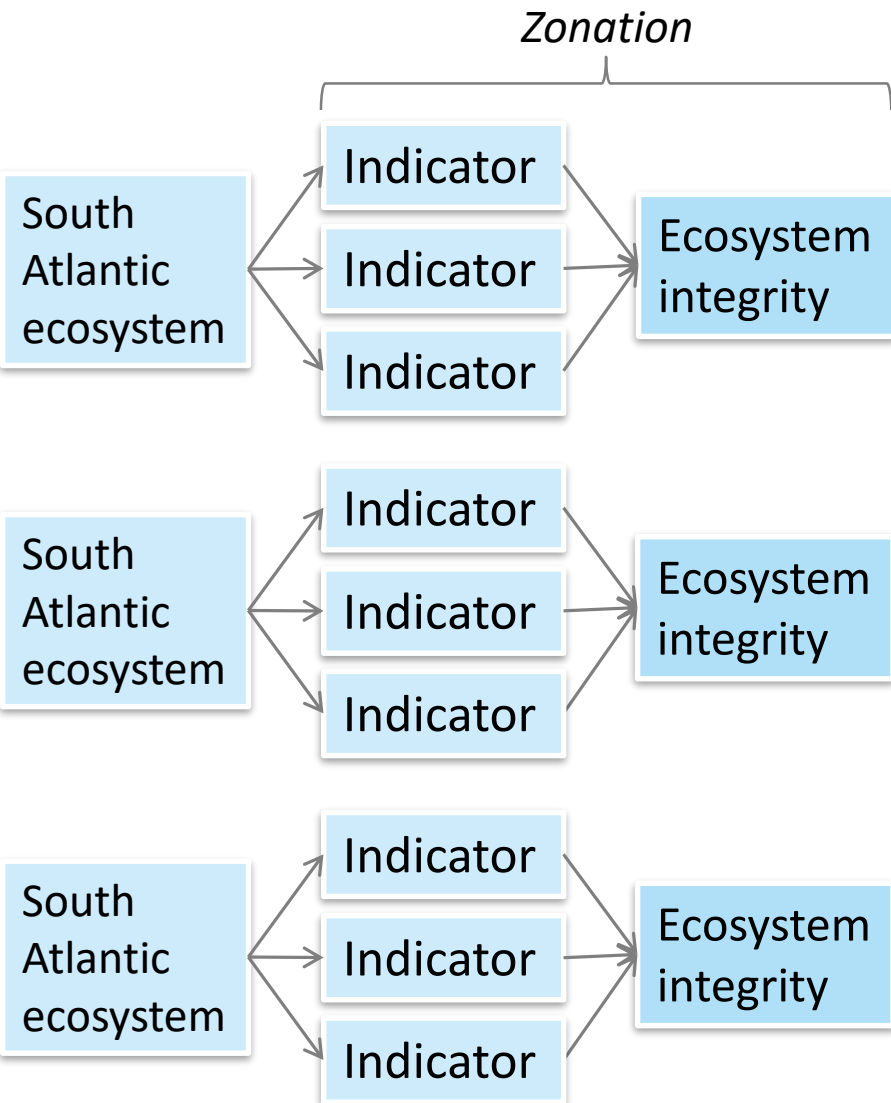
South Atlantic Conservation Blueprint 2.2



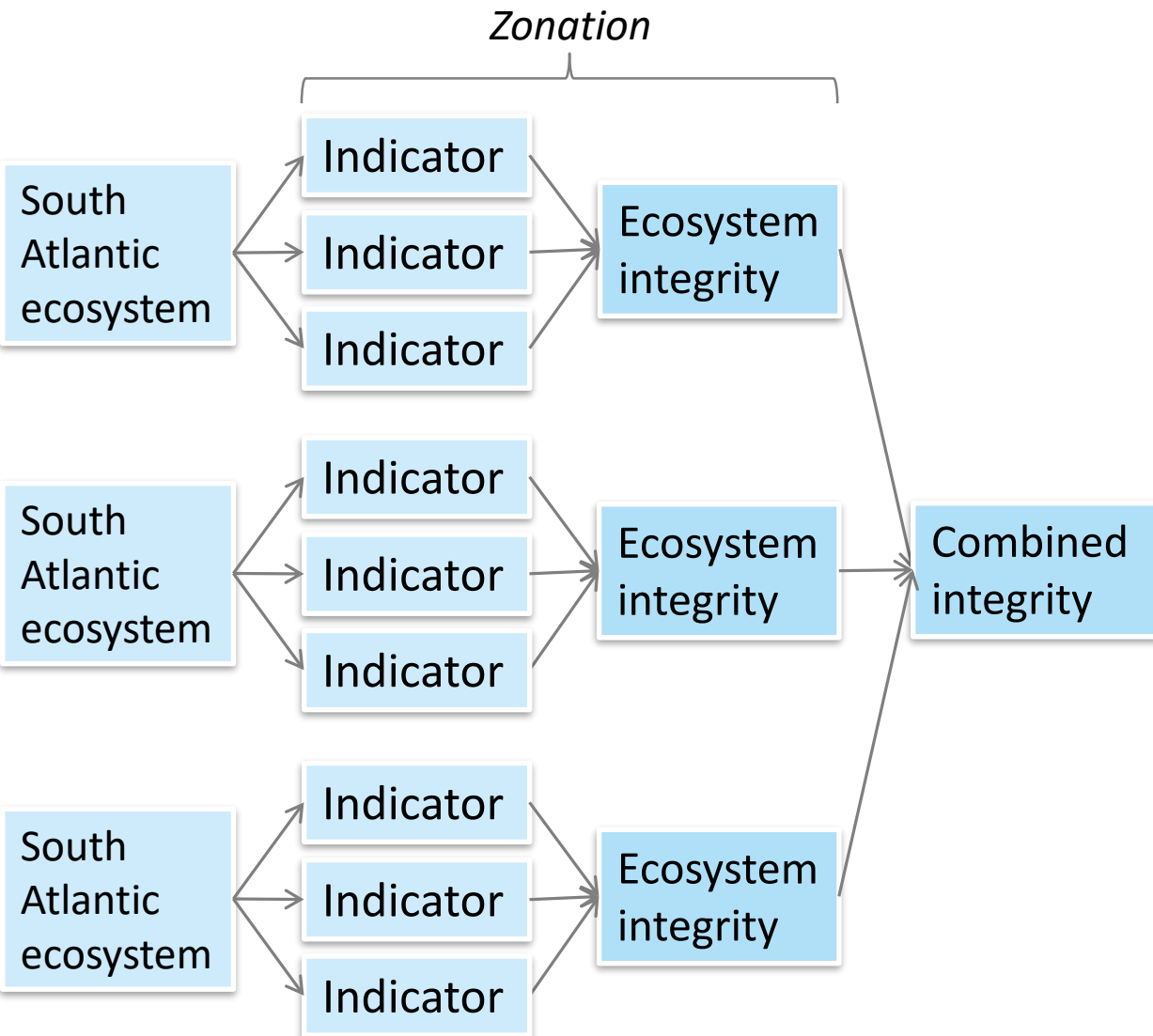
How was the Blueprint developed?



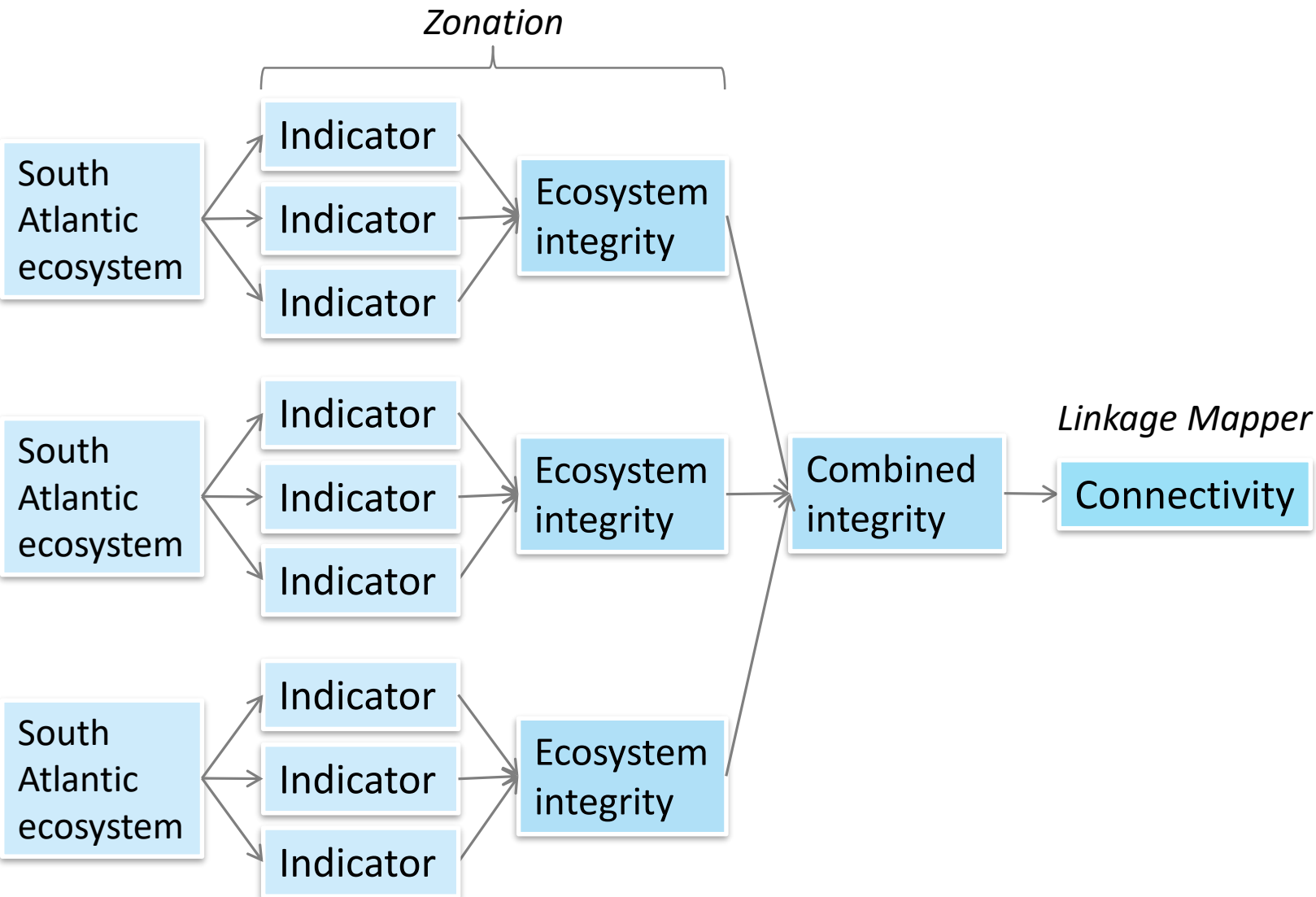
How was the Blueprint developed?



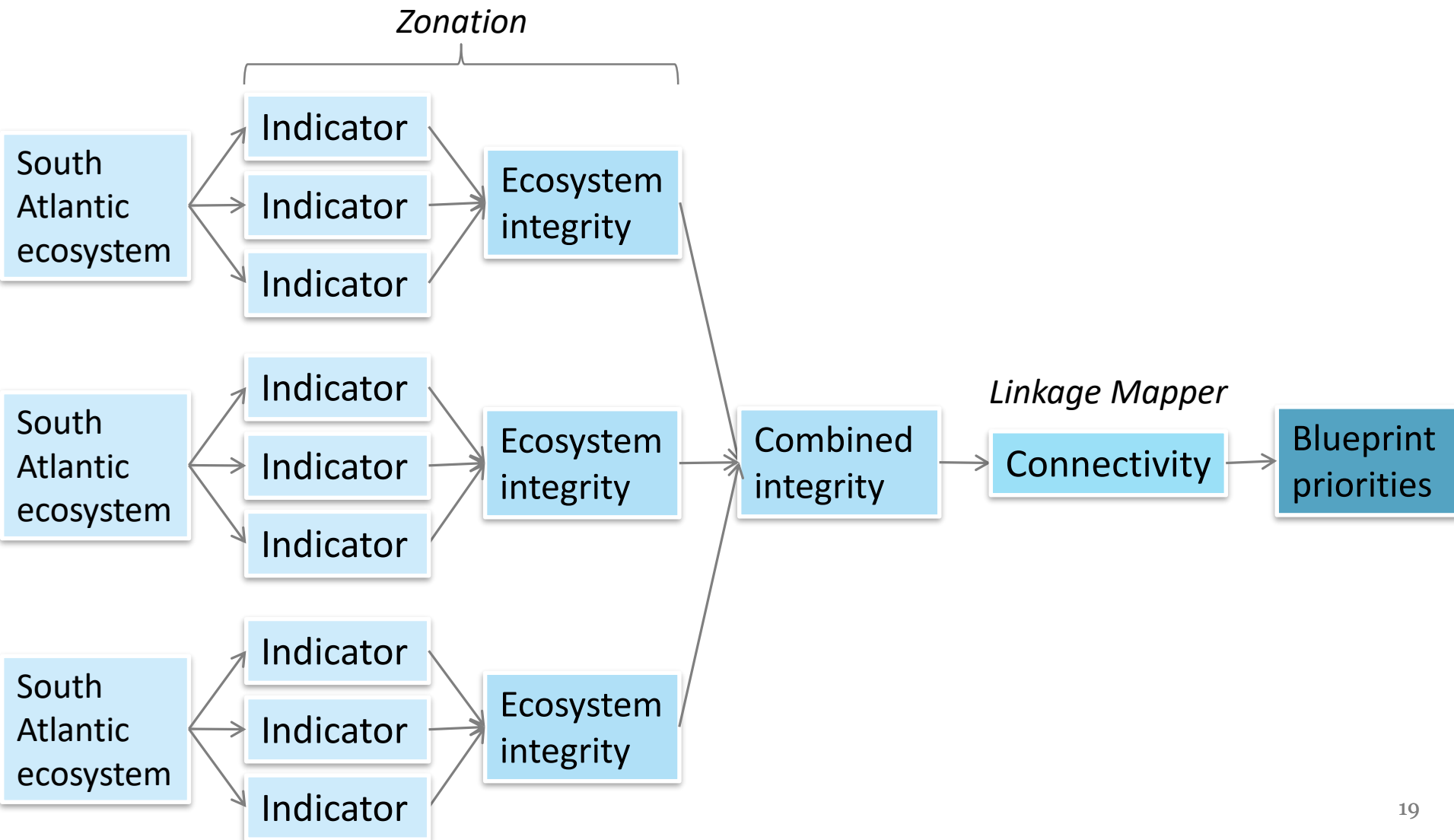
How was the Blueprint developed?



How was the Blueprint developed?



How was the Blueprint developed?



Blueprint priorities

- Each blueprint priority class covers a set amount of the South Atlantic area
- Percentages come from the literature and planning documents seeking to balance conservation and human use

Highest Priority (10% of area)

High Priority (15% of area)

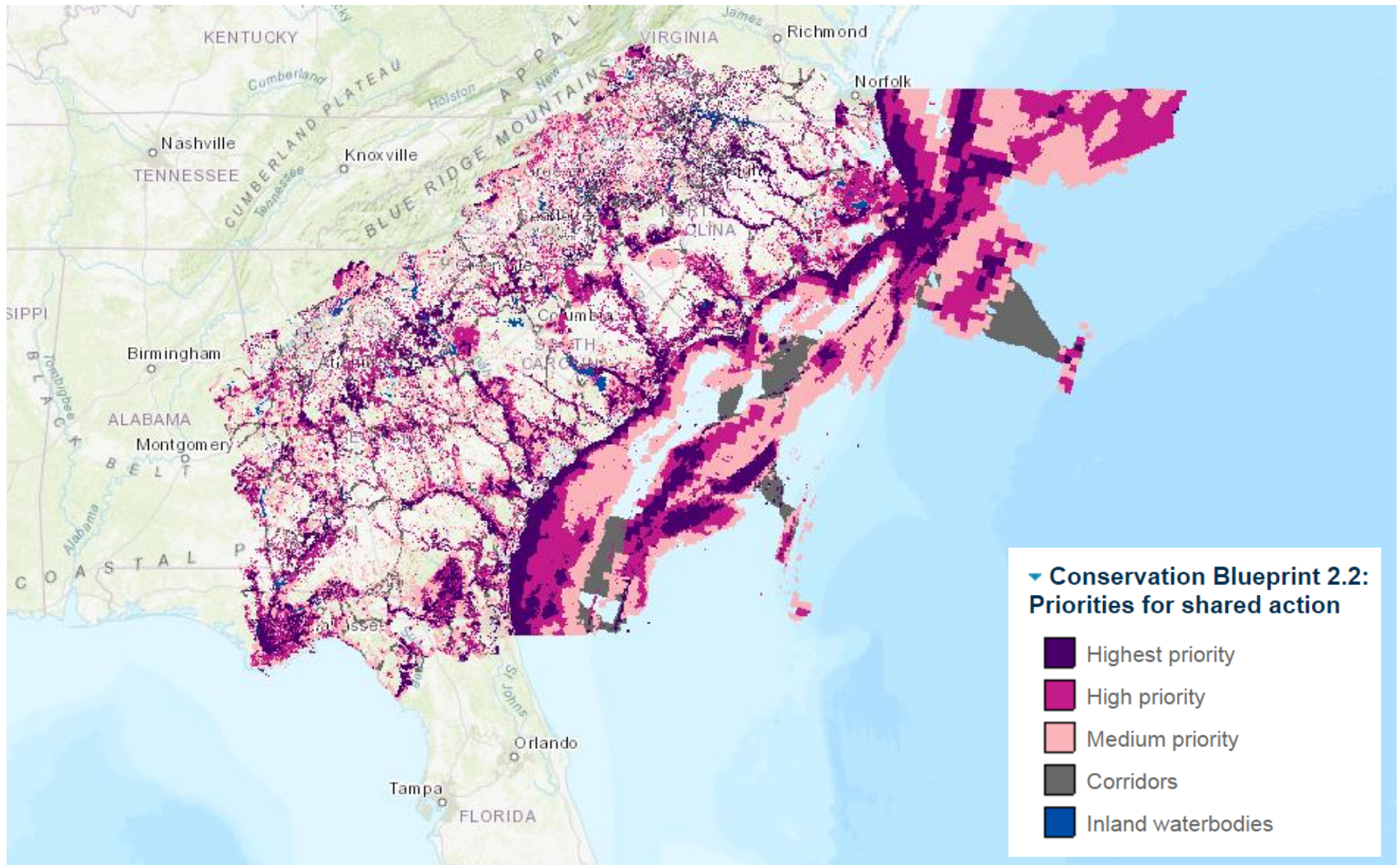
Medium Priority (20% of area)

Corridors (5% of area)

Not a shared priority

(50% of South Atlantic area)

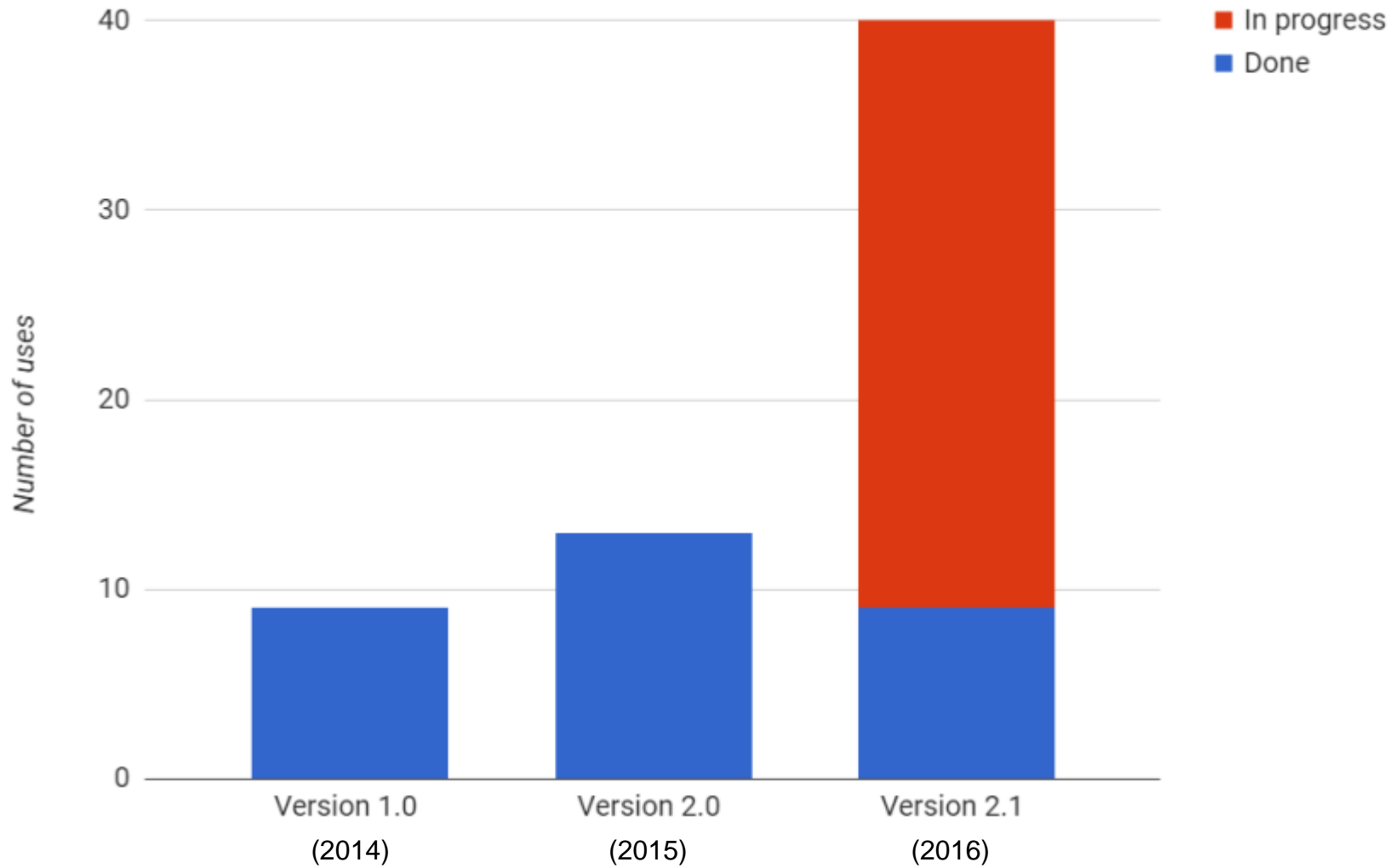
South Atlantic Conservation Blueprint 2.2



How is the Blueprint being used?

- Conserving private lands near military bases
- National Wildlife Refuge planning
- Coastal wetlands protection
- Longleaf pine management
- Assessing habitat ahead of major disasters
- Riparian forest and coastal wetlands protection
- Climate-smart wildlife management
- Fish passage barrier removal
- National Forest planning
- Ecosystem-based fishery management
- Wetlands protection
- Public lands planning

Blueprint use by version



Accessing Data

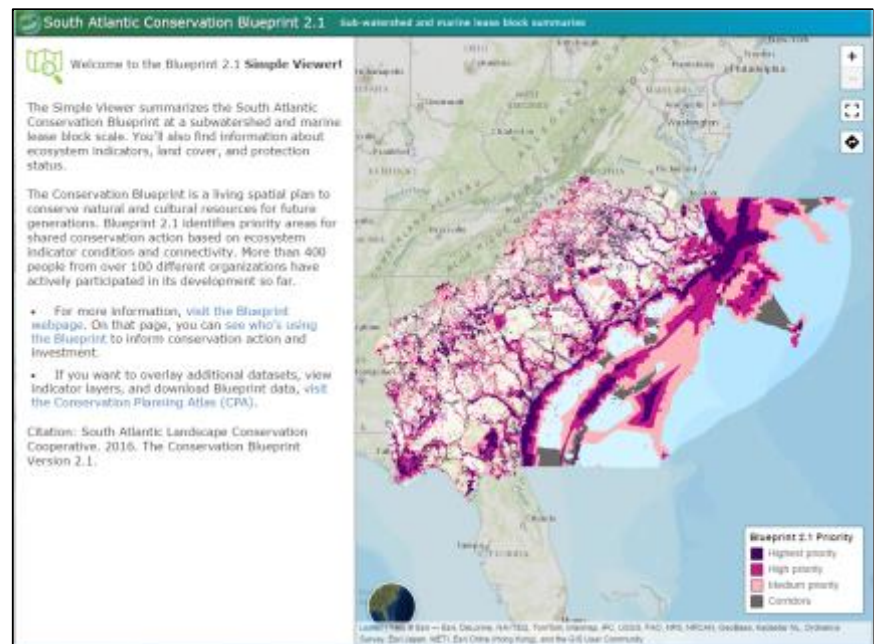
The Conservation Planning Atlas

- <http://salcc.databasin.org>



The Simple Viewer

- <http://blueprint.southatlanticlcc.org>





Implementation strategy

- Using the Blueprint to improve ecosystem integrity
- Response to urban growth and sea-level rise
- Subregional actions

Path to improving ecosystem integrity

Inputs

Activities

Outputs

Outcomes

Impact

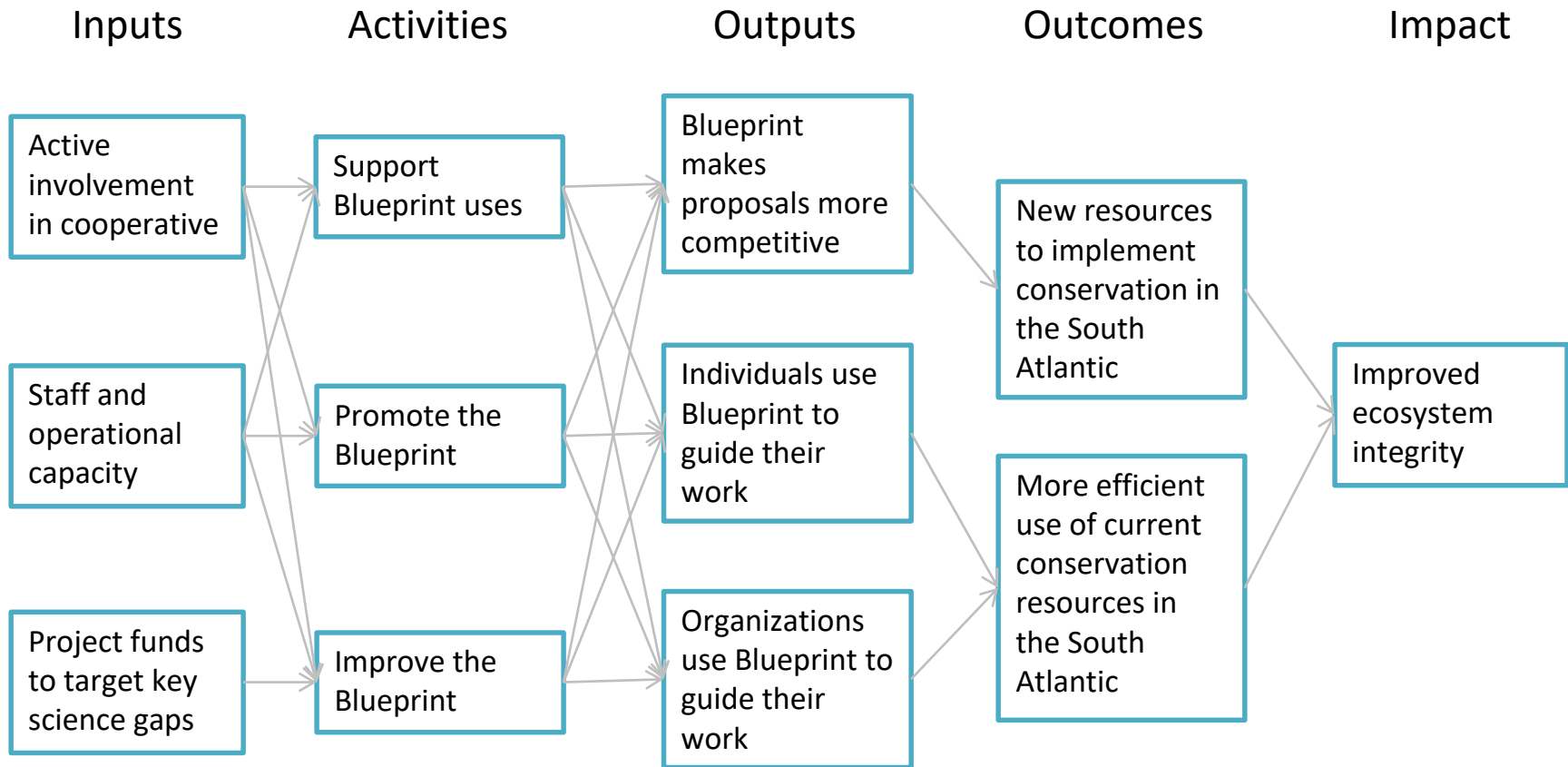
Active
involvement
in cooperative

Staff and
operational
capacity

Project funds
to target key
science gaps

Improved
ecosystem
integrity

Path to improving ecosystem integrity



Measured by

*LCC budget /
involvement
tracking*

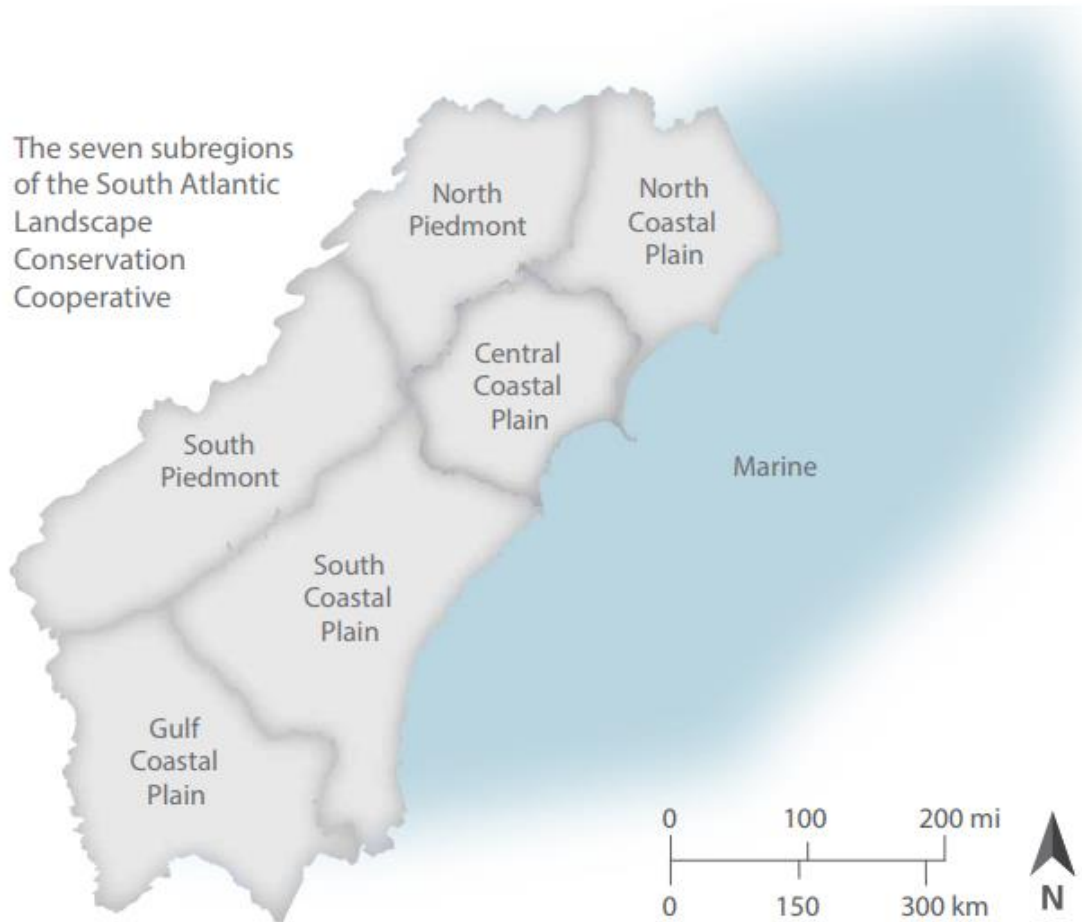
*LCC resource
allocations by
activity*

*Tracked by
Blueprint user
support staff*

*Tracked by
Blueprint user
support staff*

*Ecosystem
score change
in State of the
South Atlantic*

Subregional actions



What success/failure looks like

Subregional actions

- Blueprint workshops
- Info from 19 other plans

Success examples from marine subregion

- Sufficiently clean coastal water for **a healthy fisheries economy**, reduced harmful algae blooms, and healthy recreational opportunities
- Estuarine **habitats are connected** to offshore marine habitats with critical life-history supporting habitats for fish and wildlife. These support improved fisheries and populations of non-fishery related estuarine and marine species
- An engaged and **informed public and community leaders** that prioritize nature for its inherent value and the services it provides to sustain life

Inputs for marine subregion actions

- South Atlantic Conservation Blueprint workshops
- 2016 - 2020 Vision Blueprint for the Snapper-Grouper Fishery in the South Atlantic
- South Atlantic Fishery Ecosystem Plan
- Atlantic Coastal Fish Habitat Partnership Conservation Action Plan
- Atlantic States Marine Fisheries Commission Recommendations for Conservation of Atlantic Sciaenid Habitats
- NC Coastal Habitat Protection Plan
- FL State Wildlife Action Plan
- Albemarle Pamlico National Estuary Partnership Comprehensive Conservation and Management Plan
- Gullah Geechee Cultural Heritage Corridor Management Plan

Action examples from marine subregion

- **Support living shoreline efforts** to benefit the South Atlantic Bight (Blueprint workshops)
- Ensure that **energy development** and infrastructure is designed and sited to minimize negative impacts to fish habitat, avoid new obstructions to fish passage, and, where possible, provide positive impacts. (NC Coastal Habitat Protection Plan)
- Enhance existing and **develop new partnerships** with agencies, academic institutions, and other organizations to support comprehensive management strategies for the snapper grouper fishery (Vision Blueprint for the Snapper-Grouper Fishery)

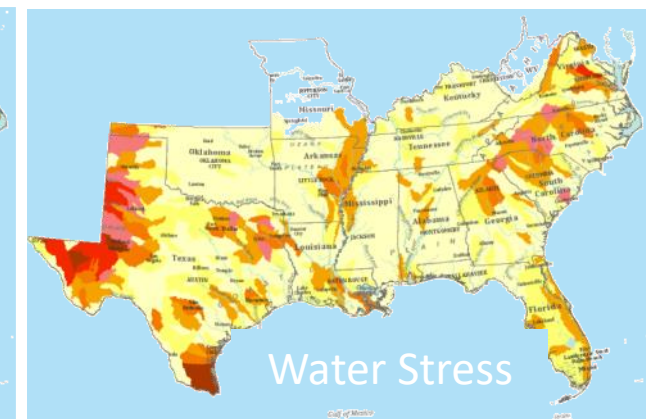
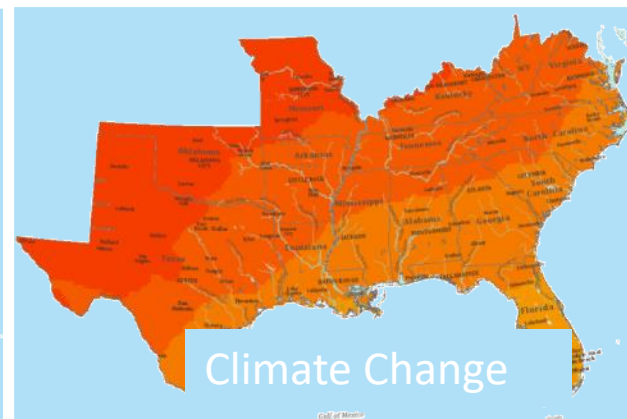
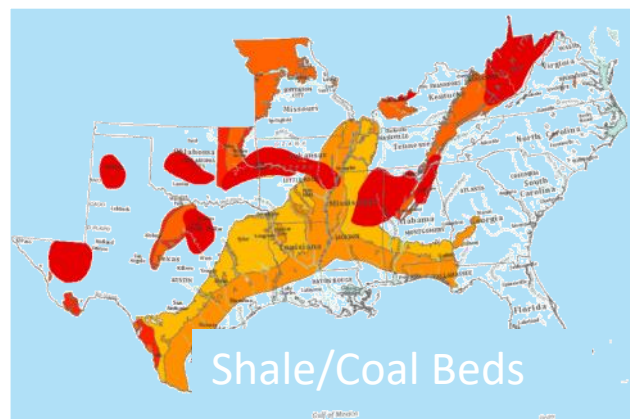
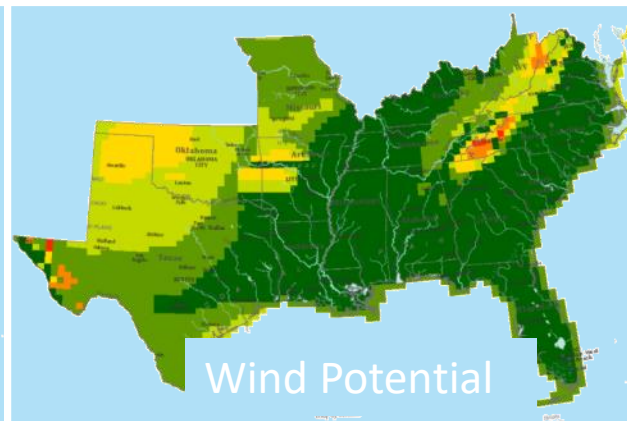
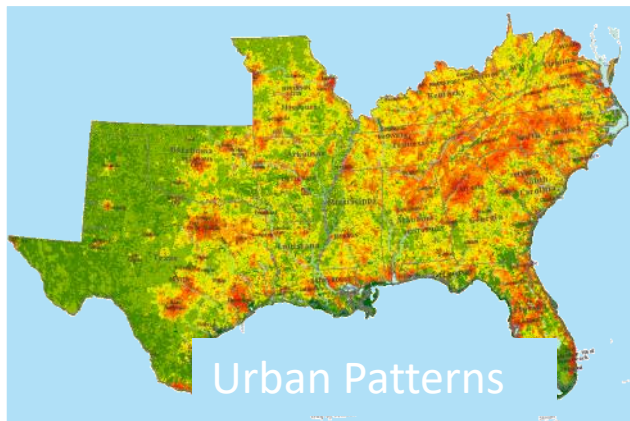


Regional connections

Southeast Conservation Adaptation Strategy
SECAS

Why Landscape Scale Conservation?

Large Disruptive Changes Impacting Conservation



Southeastern Association of Fish & Wildlife Agencies



Southeastern Natural Resources Leaders Group



**Southeast Conservation Adaptation Strategy
Progress Summary Report - Fall 2014**
Presented to SEAFWA Directors: Tuesday Oct 22, 2014

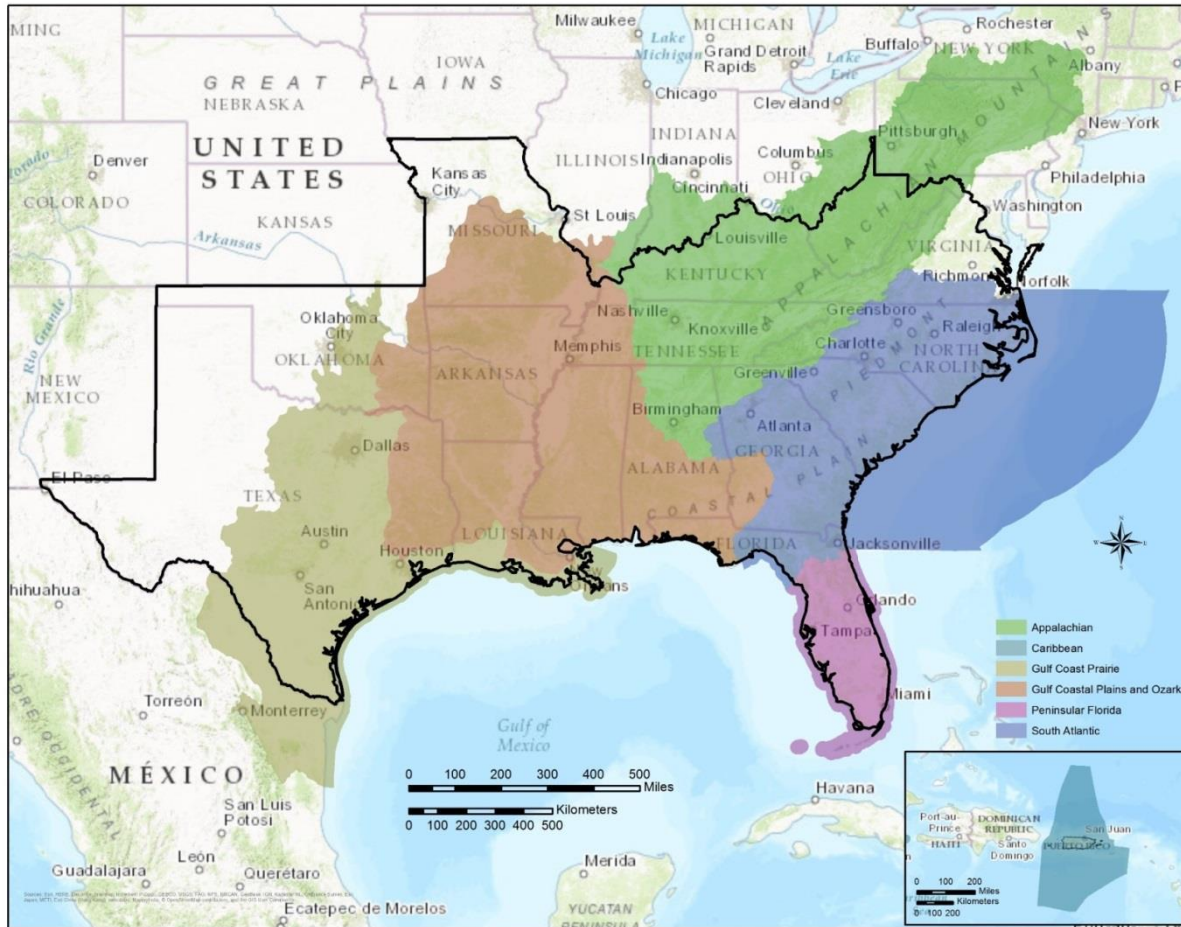


**Southeast Conservation Adaptation Strategy
Fall 2015 Briefing**
Presented to SEAFWA Directors Tuesday Nov 3, 2015



- ***Southeast Conservation Adaptation Strategy***
- Initiated by states
- Inclusive of federal agencies
- Implementation through LCCs
- Coordinated with CSCs
- Incorporating broad network of partners; sectors

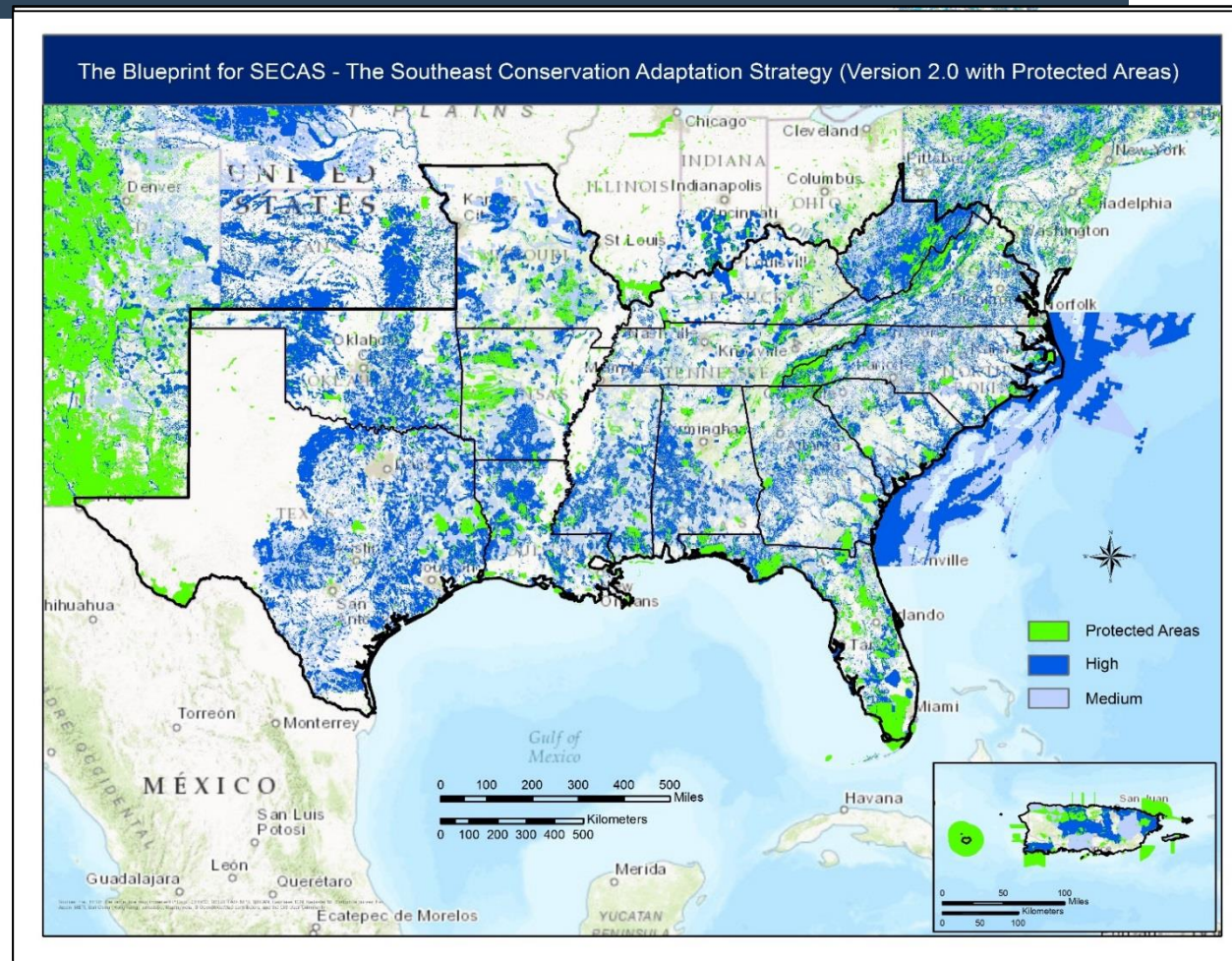
Conservation Opportunities



- Connecting Lands
- Connecting Waters
- Engaging Other Sectors
- Incorporating Future Conditions into Decision Making
- Integrating At-Risk Species
- Bringing In New Resources

SECAS Blueprint Version 2.0

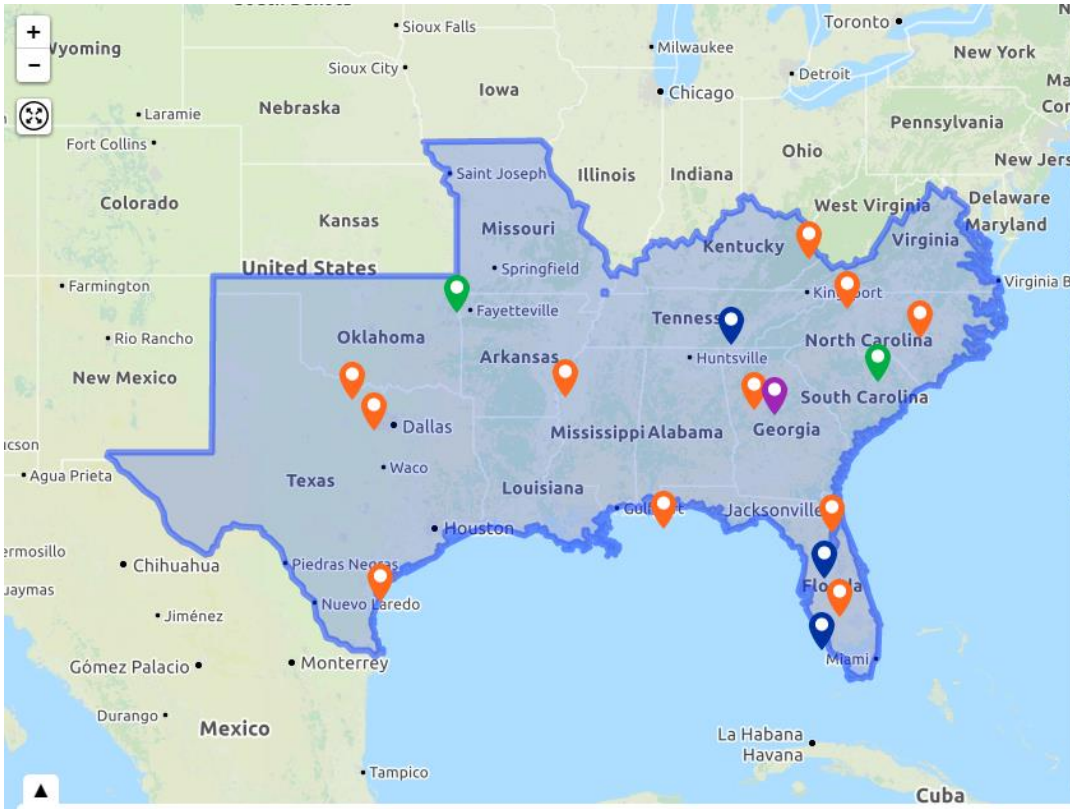
- Integrates Blueprints from individual LCCs
- Living map showing shared priorities for conservation and restoration
- Lands and waters with high and medium conservation value; not acquisition boundaries
- Includes connectivity corridors
- Includes potential conservation layers, such as prescribed burning and reforestation
- Version 2.0 – Much improved; more to be done



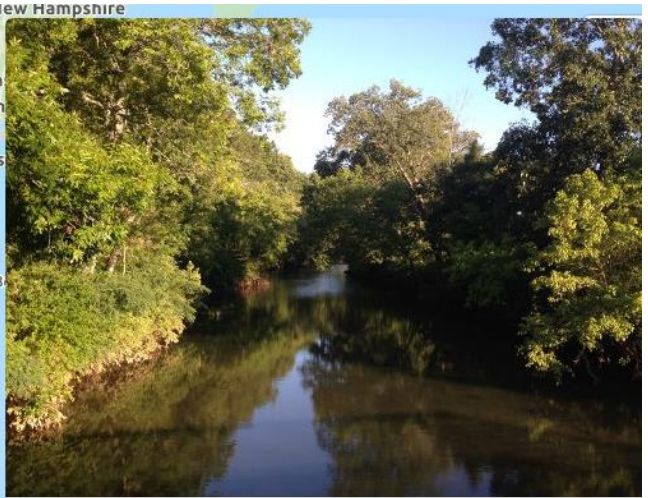
A few improvements in the works

- Finer resolution
- Improved estuarine and marine indicators
- Better models connecting actions and indicators

secassoutheast.org



A map of the Southeastern United States, including parts of the Midwest and South. The map shows state boundaries and major cities. A blue outline highlights the project area, which covers parts of Missouri, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, Texas, and Florida. Various colored pins (orange, green, blue, purple) are placed on the map, indicating specific locations of interest. The map also shows parts of Canada to the north and Mexico to the south.



Mill Creek, Tennessee. Photo: Lindsay Gardner

Restoring Connectivity of Southern Rivers and Streams

Theme: Smart Planning

The Southeast Aquatic Connectivity Assessment Project uses a database and web-based decision support tool to prioritize dams for removal or passage. [Read the full story.](#)

How to get involved with your cooperative

- Join the South Atlantic LCC web community

southatlanticlcc.org

- Connect with a staff or other cooperative member
- Explore the Conservation Blueprint

southatlanticlcc.org/blueprint

