ECOSYSTEM SERVICES AS PART OF THE SOUTHEAST CONSERVATION ADAPTATION STRATEGY (SECAS)

ACES 2016

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SECAS Coordinator

Session #63 –*Using Ecosystem Services to inform Conservation Decisions at a Landscape Scale*

Thursday December 8th, 2016

Overview & Purpose

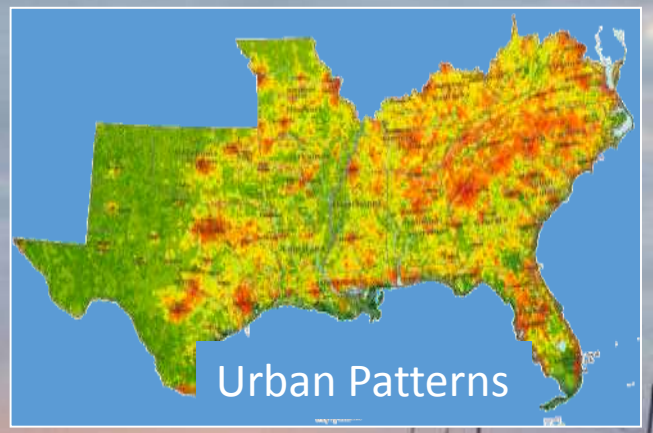
- Southeast Conservation Adaptation Strategy (SECAS)
  - *Why SECAS*
  - *Progress to Date*
  - *SECAS Conservation Blueprint Version 1.0*
- A Model of Continued Improvement
  - *Incorporating ecosystem services – the human aspects*
- Where next?
  - *Improving decision making processes*
  - *Schedule*
  - *Engagement*

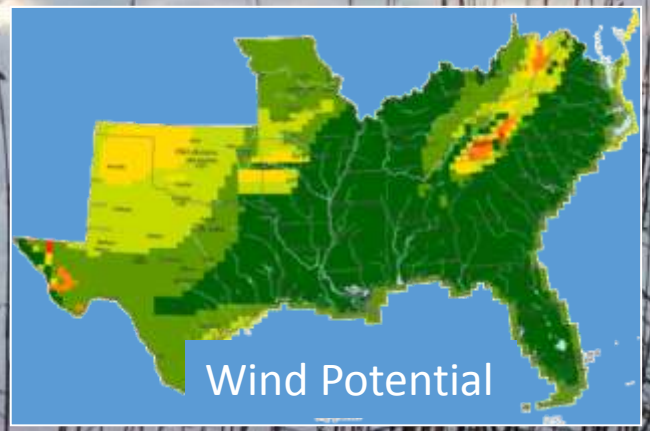
Southeast Conservation Adaptation Strategy (SECAS)

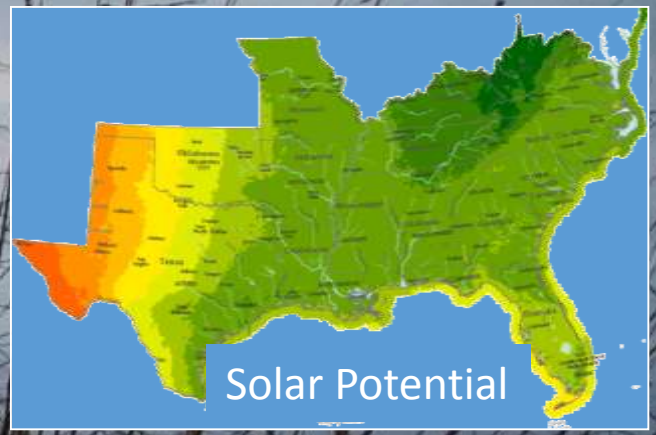
- ***Southeast Conservation Adaptation Strategy***
- Initiated by State Fish & Wildlife Agencies
- Inclusive of Federal Agencies
- Implementation through Landscape Conservation Cooperatives
- Coordinated with Climate Science Centers
- Includes a broad network of partners

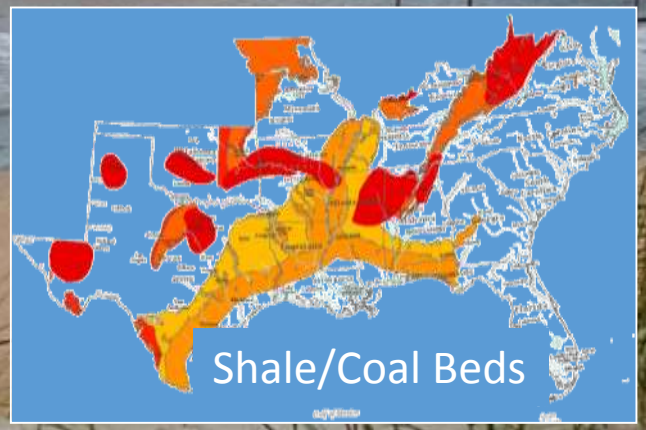
Why SECAS?

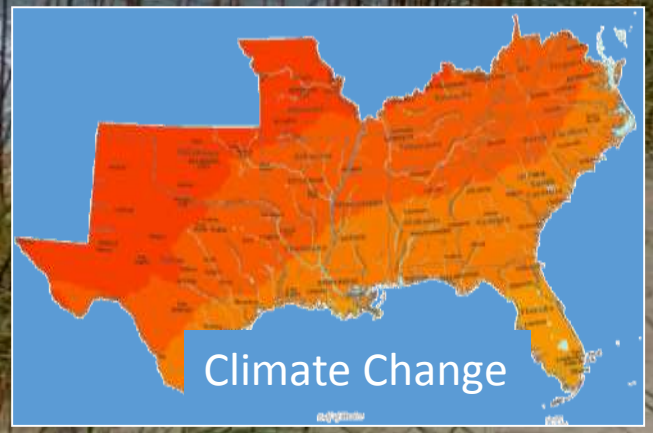
Large Disruptive Changes Impacting Conservation









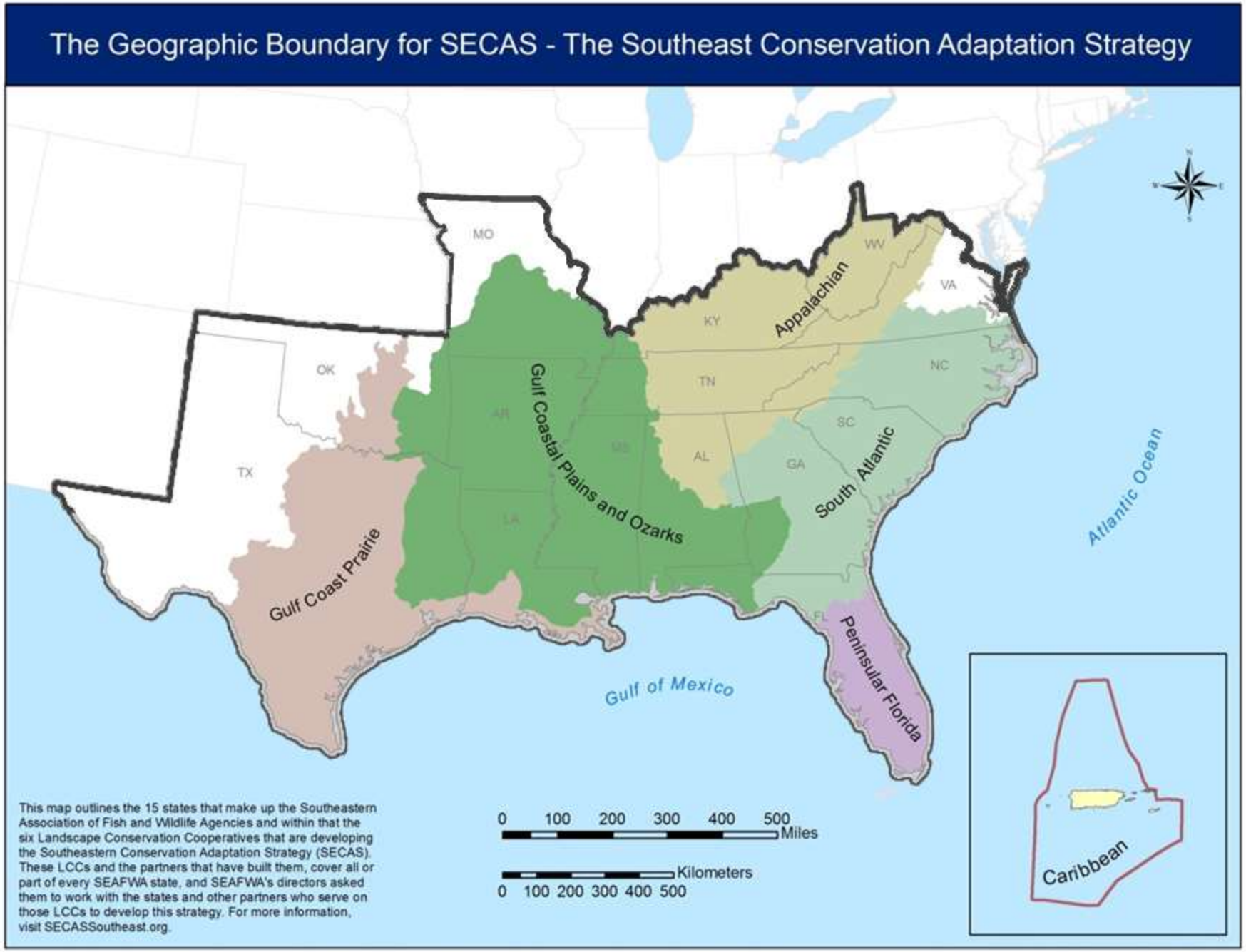


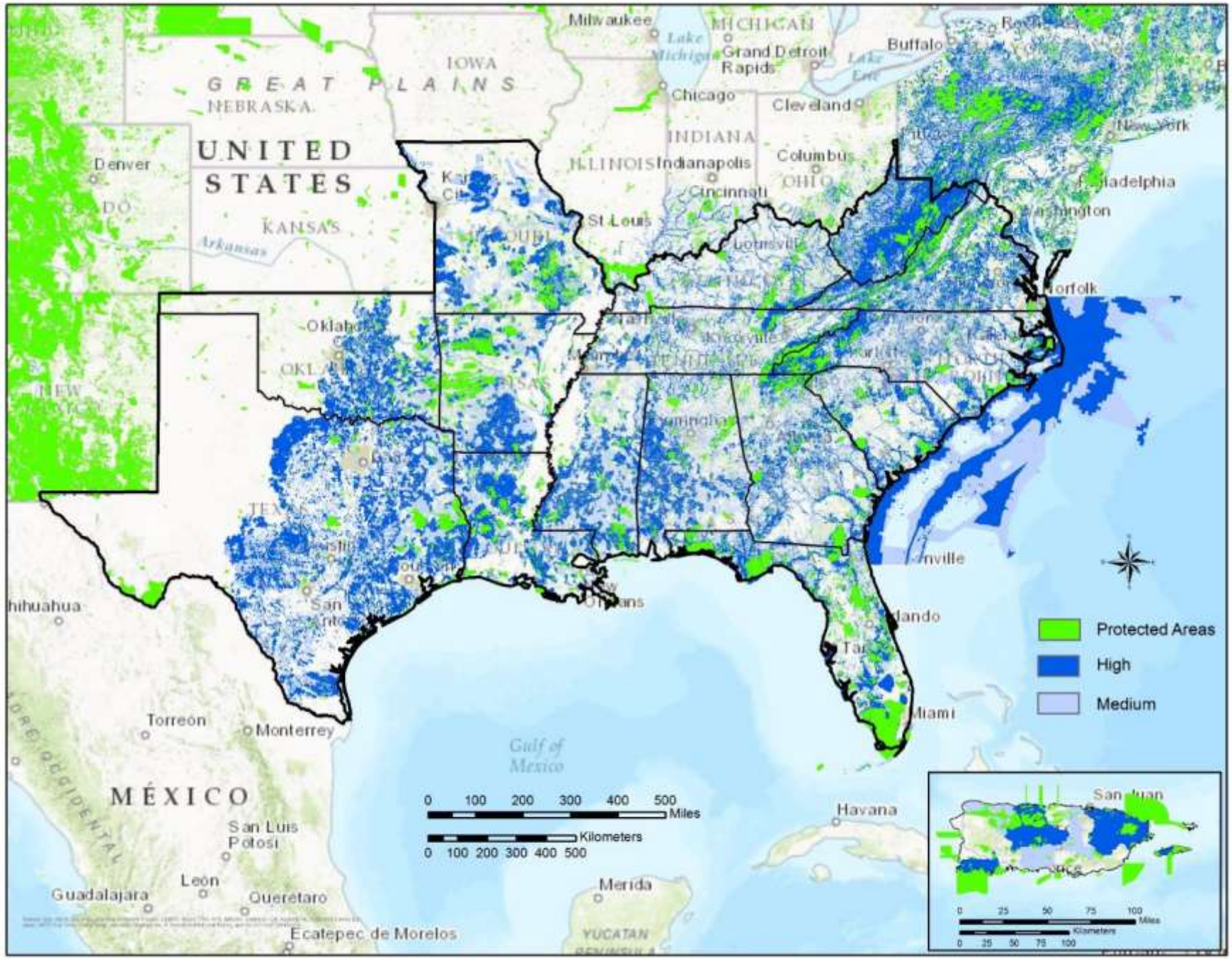
Why SECAS?

*The **dramatic changes** sweeping the Southeastern United States — such as urbanization, competition for water resources, extreme weather events, sea level rise, and climate change — pose **unprecedented challenges** for sustaining our natural and cultural resources. However, they also offer a **clear opportunity to unite** the conservation community around a **shared, long-term vision for the future. The Southeast Conservation Adaptation Strategy (SECAS) is that vision….***

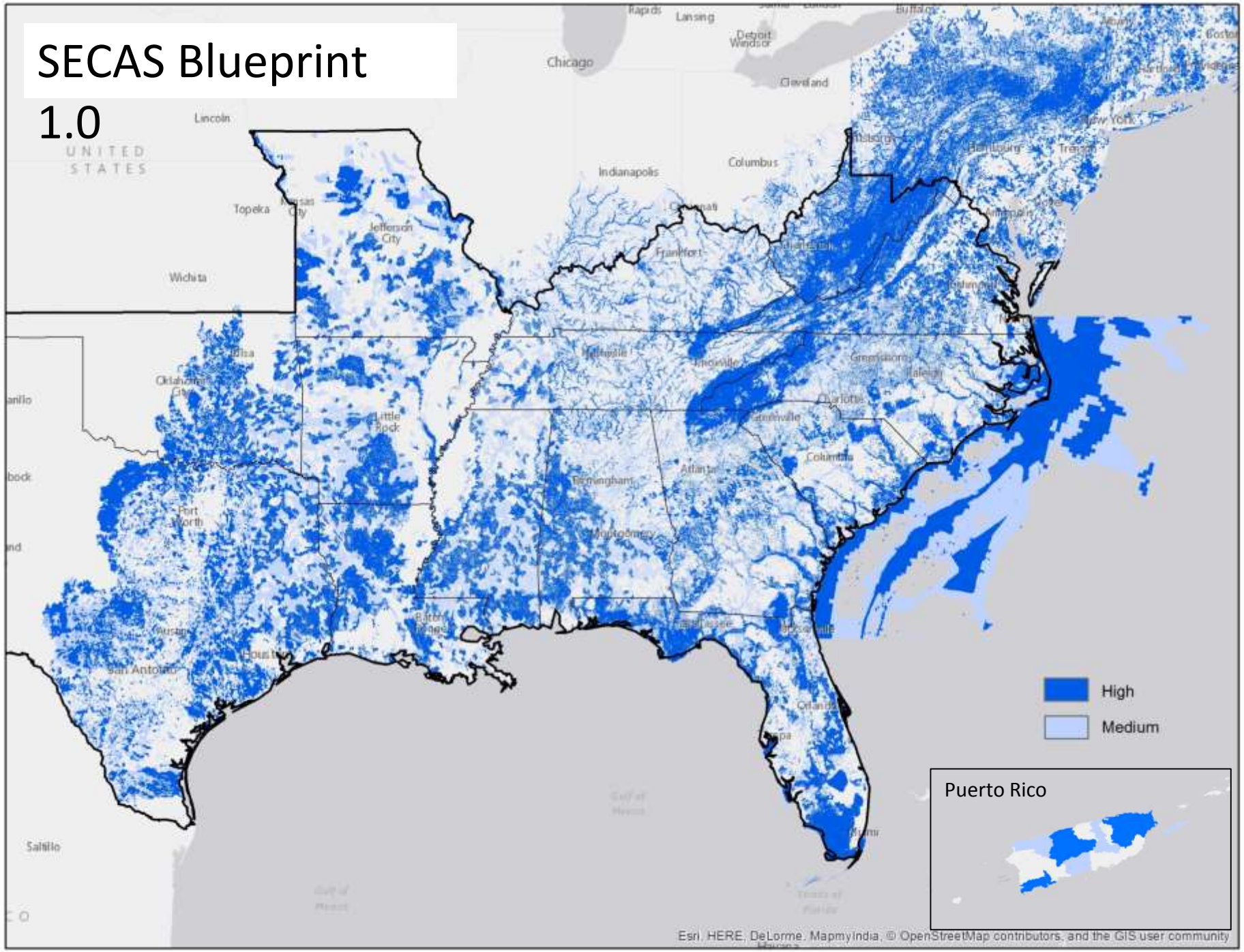
The Vision

…. Through SECAS, ***diverse partners*** *are working together to design and achieve a* ***connected network of landscapes and seascapes*** *that supports thriving fish and wildlife populations and improved quality of life for people across the southeastern United States and the Caribbean. Together, federal, state, non-profit and private organizations are* ***coordinating their conservation actions and investments to focus on common goals.***

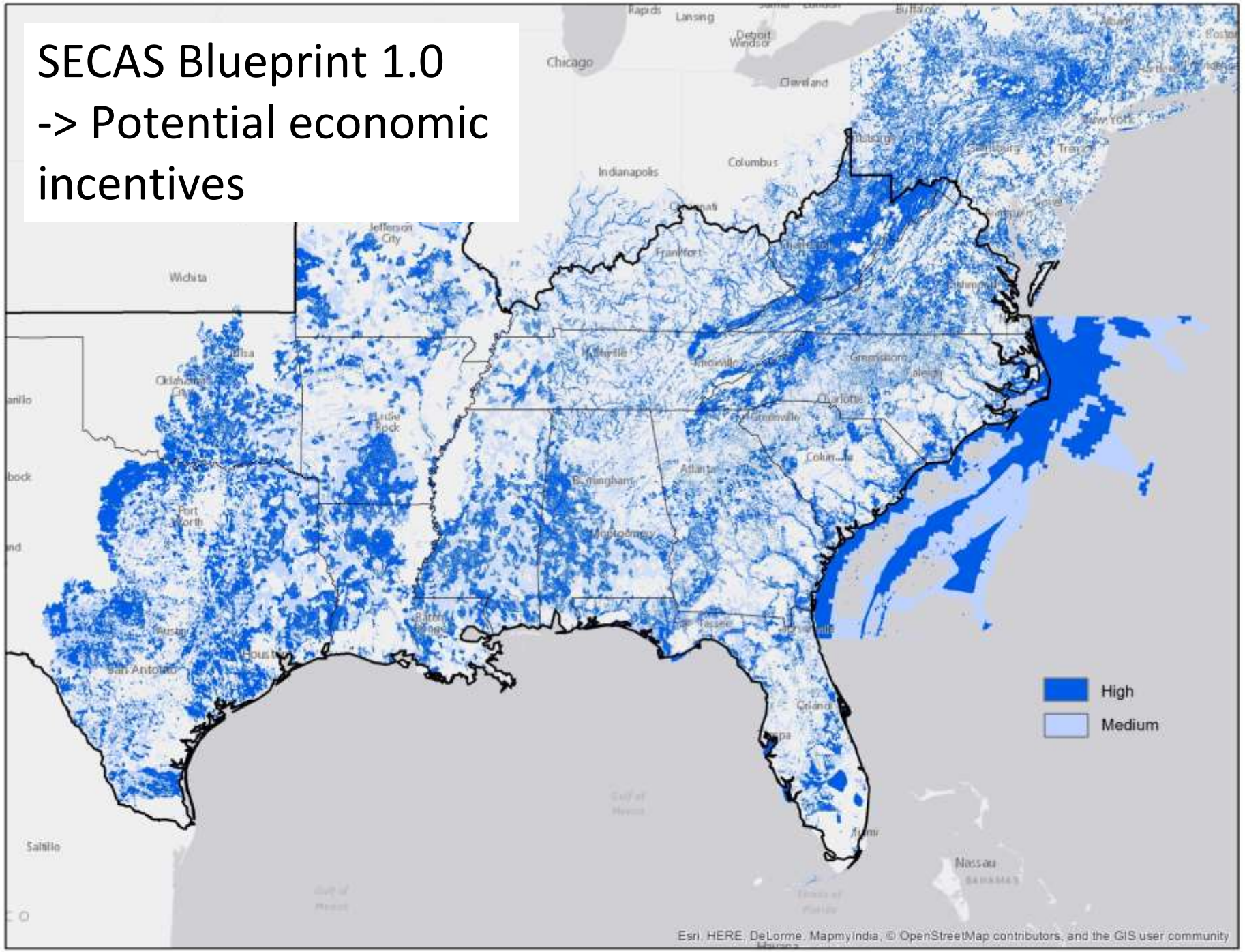

The Geographic Boundary for SECAS - The Southeast Conservation Adaptation Strategy
MO
OK
TX
AR
LA
MS
AL
GA
FL
SC
NC
TN
KY
WV
VA
Appalachian
Gulf Coastal Plains and Ozarks
South Atlantic
Gulf Coast Prairie
Peninsular Florida
Atlantic Ocean
Gulf of Mexico
Caribbean
This map outlines the 15 states that make up the Southeastern Association of Fish and Wildlife Agencies and within that the six Landscape Conservation Cooperatives that are developing the Southeastern Conservation Adaptation Strategy (SECAS). These LCCs and the partners that have built them, cover all or part of every SEAFWA state, and SEAFWA's directors asked them to work with the states and other partners who serve on those LCCs to develop this strategy. For more information, visit SECASSoutheast.org.
0 100 200 300 400 500 Miles
Kilometers
0 100 200 300 400 500


Milwaukee
MICHIGAN
Lake Michigan
Grand Rapids
Detroit
Buffalo
IOWA
GREAT PLAINS
NEBRASKA
Chicago
Cleveland
INDIANA
UNITED STATES
Denver
ILLINOIS
Indianapolis
Columbus
Cincinnati
OHIO
KANSAS
St Louis
Arkansas
Louisville
Norfolk
Oklah
OKLA
Protected Areas
High
Medium
Torreón
Monterrey
Gulf of Mexico
MÉXICO
Havana
San Luis Potosí
León
Guadalajara
Querétaro
Ecatepec de Morelos
Merida
YUCATAN
0 100 200 300 400 500 Miles
0 100 200 300 400 500 Kilometers
San Juan
0 25 50 75 100 Miles
0 25 50 75 100 Kilometers

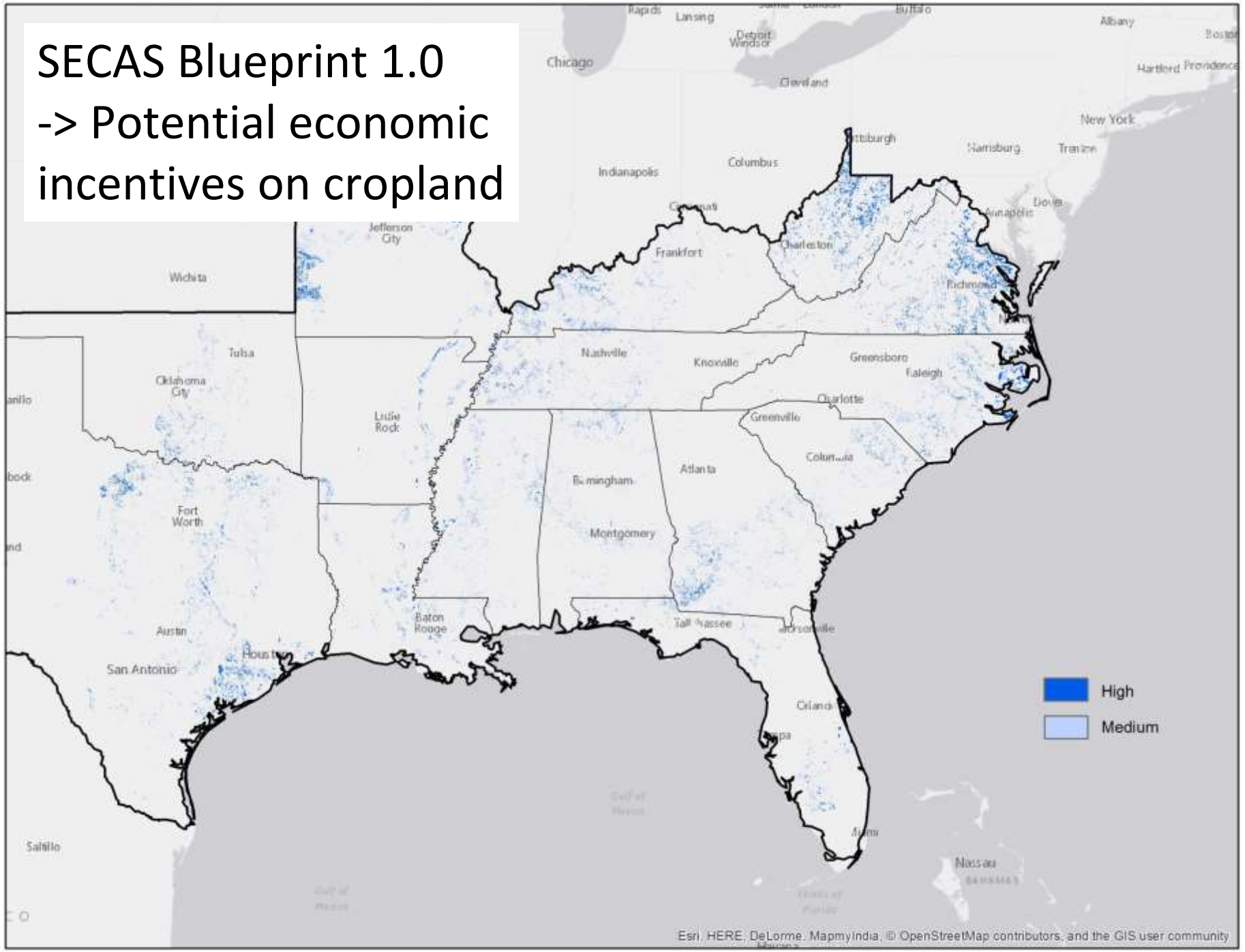
SECAS Blueprint 1.0



SECAS Blueprint 1.0 -> Potential economic incentives



SECAS Blueprint 1.0 -> Potential economic incentives on cropland



A Model of Continued Improvement… Ecosystem Services

What are they worth – and to whom?

- Total Economic Value *(Willingness to Pay)*
  - Use Value
    - Direct Use Value
    - Indirect Use Value
  - Non-use Value
    - Existence Value
    - Bequest Value
    - Option Value

Adapted from Rebecca Moore (BLM)

Cultural Resources & Other Ecosystem Services

- Better understanding motivators – which ecosystem services drive action

- *Agricultural land – incentives*
  - *Gopher Tortoise in Florida*
  - *Assessment of ecosystem service value and program delivery options*

- *Smaller and smaller land parcels – impacts for things like prescribed fire – urban/wildland interface*
  - "Fire Adapted Cities: Prescribed Fire Use in Urban and Community Forest Management" – webinar on November 10th, 2016

SECAS Case Studies

- Integrating at-risk-species: Gopher Tortoise

Buzzzzz Clips

Forest Conservation Has a New Poster Child: The Gopher Tortoise

TakePart, a digital news and lifestyle magazine, writes about NRCS' new implementation strategy for the gopher tortoise.

Read article.

Grazing Management Improves Grazing Land for Cattle, Habitat for Wildlife

The Prairie Star writes about the Wessels, a ranching family in Montana who have improve their ranch while benefiting sage grouse and other sagebrush-dependent species.

Read article.

USDA – November 27th

SECAS Case Studies

- Adding Capacity and Bringing In New Resources - Resilient Landscapes and Fire

Prescribed fire at John Bethea State Forest in FL

Cultural Resources – *an emerging part of the LCC efforts*

Human – Wildlife Interactions

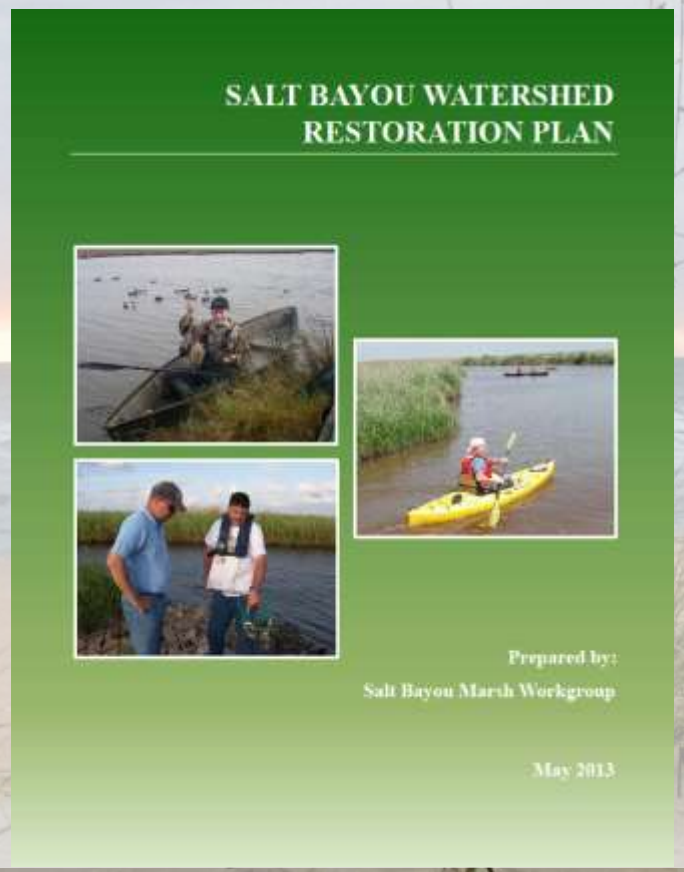
Multiple Values from Conservation Projects

Proven strategies such as **beach renourishment**, the **clay berm construction** in Jefferson and Chambers counties and **Ducks Unlimited's rock armoring project** of the Gulf Intercoastal Waterway are critically needed


Where Next?

Improving Decision Making

- Engaging other sectors – private land managers, urban planners, private industry



Schedule of Events

- SEAFWA Directors: Spring Meeting
- Southeast Natural Resource Leaders Group – Winter Meeting
- Blueprint Version 2.0 – Fall 2017 in Louisville, Kentucky

Engagement

- Through the Landscape Conservation Cooperatives – *model of continual improvement*
- Website and Conservation Planning Atlas

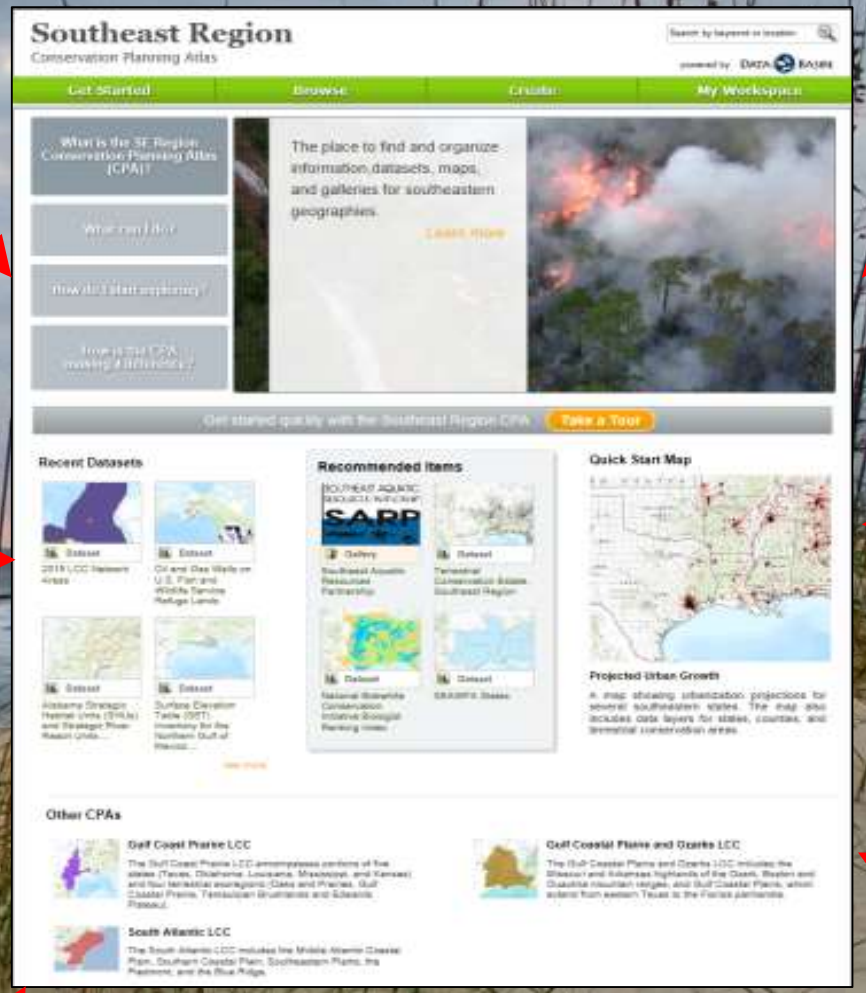
secassoutheast.org

Cascades falls, Virginia. Photo: Matthew Cimitile

Southeast Conservation Adaptation Strategy

The dramatic changes sweeping the Southeastern United States — such as urbanization, competition for water resources, extreme weather events, sea-level rise, and climate change — pose unprecedented challenges for sustaining our natural and cultural resources. However, they also offer a clear opportunity to unite the conservation community around a shared, long-term vision for the future. The Southeast Conservation Adaptation Strategy (SECAS) is that vision. Through SECAS, diverse partners are working together to design and achieve a connected network of landscapes and seascapes that supports thriving fish and wildlife populations and improved quality of life for people across the

Southeast Conservation Planning Atlas



http://seregion.databasin.org/

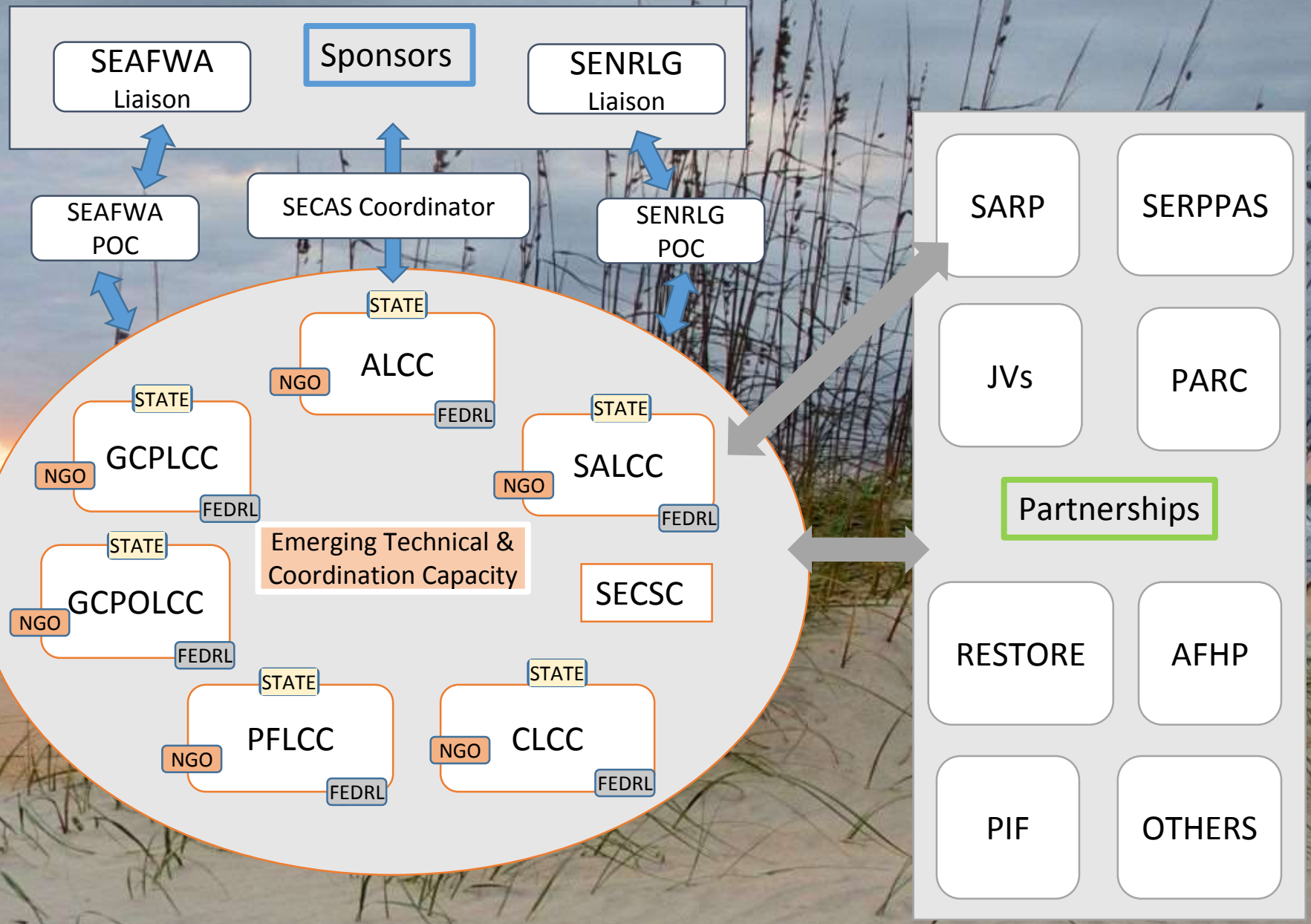
For more information!

- secassoutheast.org
- https://seregion.databasin.org/
- Regular communication from the SECAS Coordinator – monthly emails
- Comments, suggestions, questions welcome!
- Cynthia Edwards
  c.kallio.edwards@gmail.com
  337-207-9377
  Jackson, MS

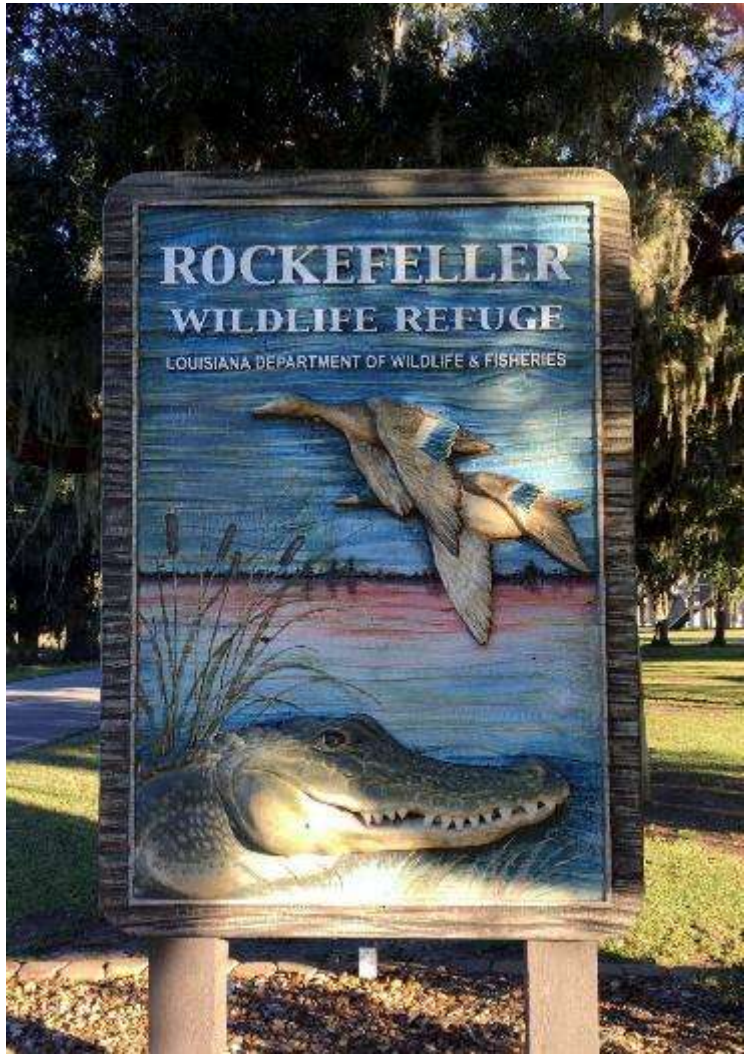

"Success will require transformational change from a model of competition for resources to one of collaboration in developing and pursuing desired future conditions" (Ed Carter, TWRA, 2011).

EXTRA SLIDES

"Success Hinges on…
Connected Collaboration, Technology and Creativity, Shared Capacity"



Louisiana's Coastal Master Plan and Texas' Coastal Resiliency Plan include current local project plans



Implementation Plan for Seventeen TMDLs for Bacteria, Dissolved Oxygen, and pH in Adams Bayou, Cow Bayou, and Their Tributaries

Executive Summary

On June 13, 2007, the Texas Commission on Environmental Quality adopted *Seventeen TMDLs for Bacteria, Dissolved Oxygen, and pH in Adams Bayou, Cow Bayou, and Their Tributaries*. The TMDLs were approved by the U.S. Environmental Protection Agency (USEPA) on August 28, 2007.

This implementation plan, or I-Plan:

- describes the steps the TCEQ and its stakeholders may take to achieve the pollutant reductions identified in the TMDL report, and
- outlines the schedule for implementation activities.

The ultimate goal of this I-Plan is the reduction of bacteria concentrations and constituents that lower dissolved oxygen in Segments 0508, 0508A, 0508B, 0508C, 0511, 0511A, 0511B, 0511C, and 0511E to levels that meet the criterion defined in the state water quality standards.

The TMDL identified a combination of point and nonpoint sources that contribute to the impairment. Nonpoint sources include failing onsite sewage facilities (OSSFs) and other sources such as pastures, forests and urban runoff. Point sources come from wastewater treatment facilities (WWTFs). The loads from the combined sources exceed the assimilative capacity of the bayous and must be reduced or redirected in order to alleviate the impairments. No single source accounts for the majority of the impairments in all locations and therefore each of the sources will need to be addressed.

The best long-term solution for failing OSSFs would be to connect to a wastewater treatment facility that redirects the waste load away from the bayous. Where that is not possible due to logistics or expense, the failing OSSFs must be repaired, replaced, or upgraded.

Other identified pollution sources, including pastures, forests and urban runoff, are addressed through Management Measures for Nonpoint Sources (see page 15). This coordinated effort will include local stakeholders, TCEQ, Texas State Soil and Water Control Board (TSSWCB), the Sabine River Authority of Texas (SRA-TX), and other organizations. The diverse nature of the nonpoint sources requires a broad approach that incorporates the perspectives of all stakeholders in the watershed to develop solutions