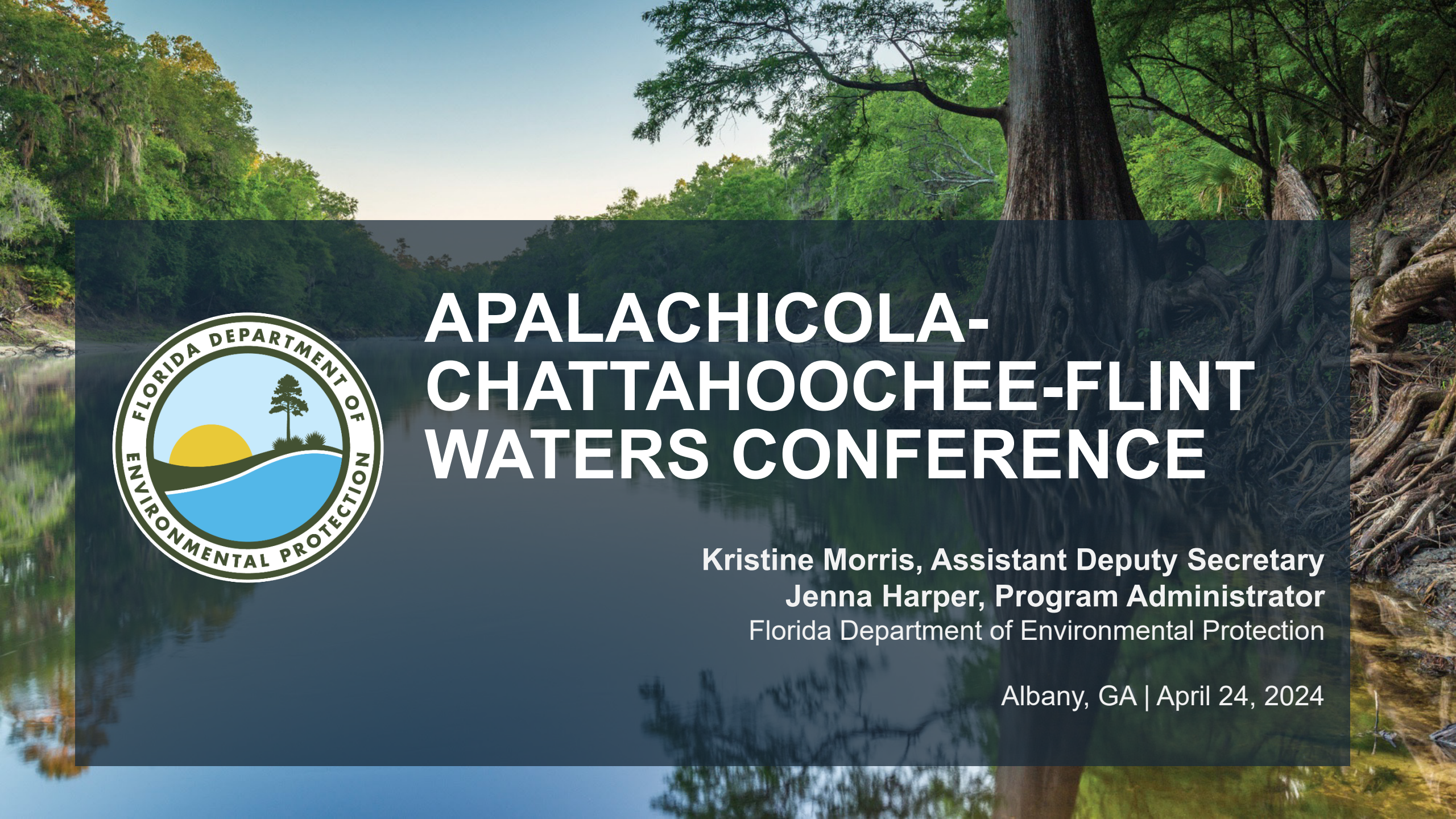


APALACHICOLA-CHATTAHOOCHEE-FLINT WATERS CONFERENCE

Kristine Morris, Assistant Deputy Secretary
Jenna Harper, Program Administrator
Florida Department of Environmental Protection

Albany, GA | April 24, 2024

WATER RESILIENCE: SUSTAINING COMMUNITIES, PROTECTING ECOSYSTEMS

FLORIDA STATE AGENCY PERSPECTIVE

KRISTINE MORRIS

- Water Management in Florida.
- State Investments in water quality and resilience and local project spotlights.
- Accountability and transparency.

JENNA HARPER

- Restoration beyond water quality and quantity: habitat enhancements and species recovery.
- Thinking about restoration more holistically in the Apalachicola system.
- Linking natural communities and human communities.

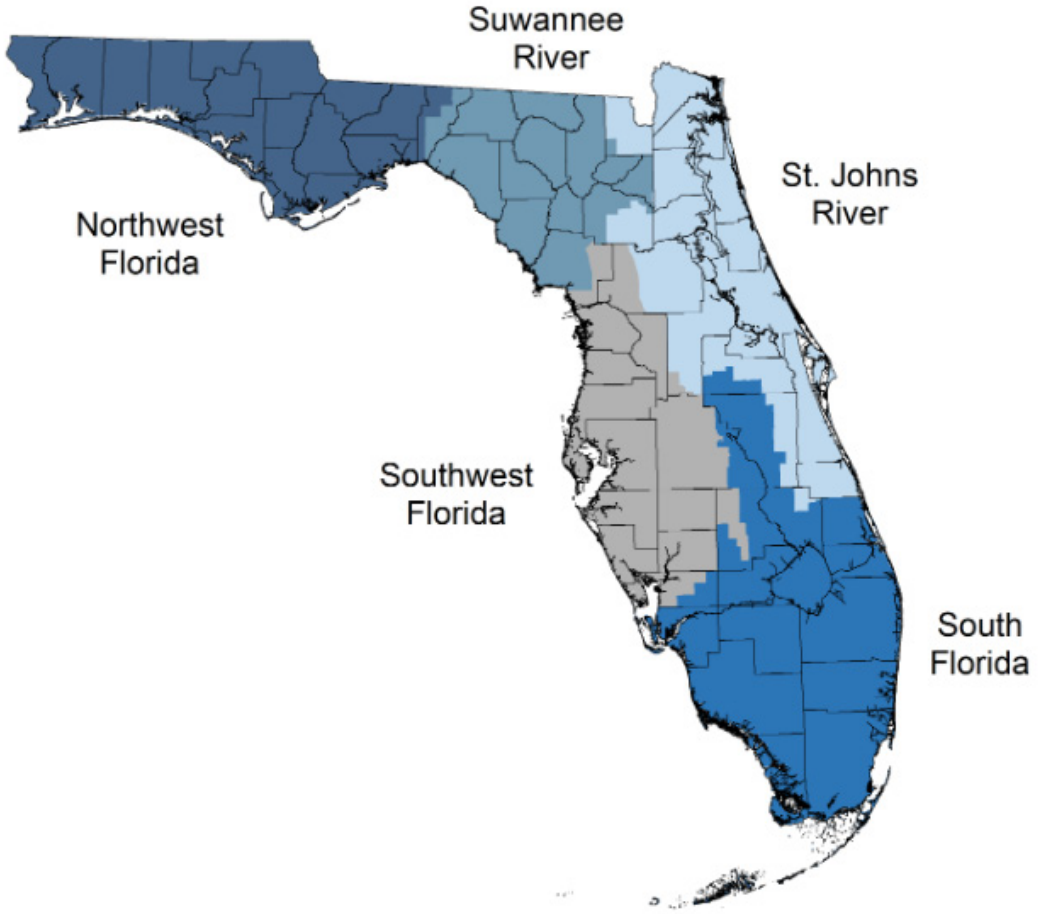
WATER MANAGEMENT IN FLORIDA

DEP AND THE WATER MANAGEMENT DISTRICTS

The state of Florida has a population of over 22.6 million.

Florida enjoyed more than 135 million visitors in 2023.

Florida is also home to 9.7 million acres of agricultural lands.



"[I]t is the policy of the Legislature that the waters in the state be managed on a state and regional basis."

STATE INVESTMENTS

$4.1 BILLION IN FIVE YEARS

Water Quality Improvement Grant

$441
Million

Targeted Water Quality

$1.8
Billion

Alternative Water Supply

$190
Million

Everglades Restoration

$2.4
Billion

Harmful Algal Blooms

$186
Million

Resilient Florida

$637
Million

BENEFITING LOCAL COMMUNITIES

$129 MILLION IN FIVE YEARS

BENEFITING LOCAL COMMUNITIES

PROJECT HIGHLIGHT

City of Apalachicola Wastewater Treatment Facility Upgrade and Relocation

Following damage from Hurricane Michael, this project will relocate critical wastewater infrastructure from flood zone AE to higher ground in flood zone X.

This includes upgrading treatment to advanced treatment, with TN limits of 3 mg/L and TP limits of 1 mg/L.

This project received $13.4 million from Resilient Florida for the relocation and $5.5 million from our Water Quality Grant Program for the advanced wastewater treatment (AWT) upgrades.

BENEFITING LOCAL COMMUNITIES

PROJECT HIGHLIGHT

Jackson Blue Agricultural Best Management Practices

The Northwest Florida Water Management District has partnered with producers in Jackson County to reduce nitrogen loads to the Florida aquifer system through improved farming practices. This includes:

- Irrigation equipment improvements.
- Fertigation, banding and other precision application equipment.
- Variable rate application equipment.
- Flow meters.
- Timer operated shut off devices for center pivot/fertigation systems.
- Variable rate and section control spreaders/sprayers.
- Precision soil sampling.
- Installation/data management for soil moisture meters.

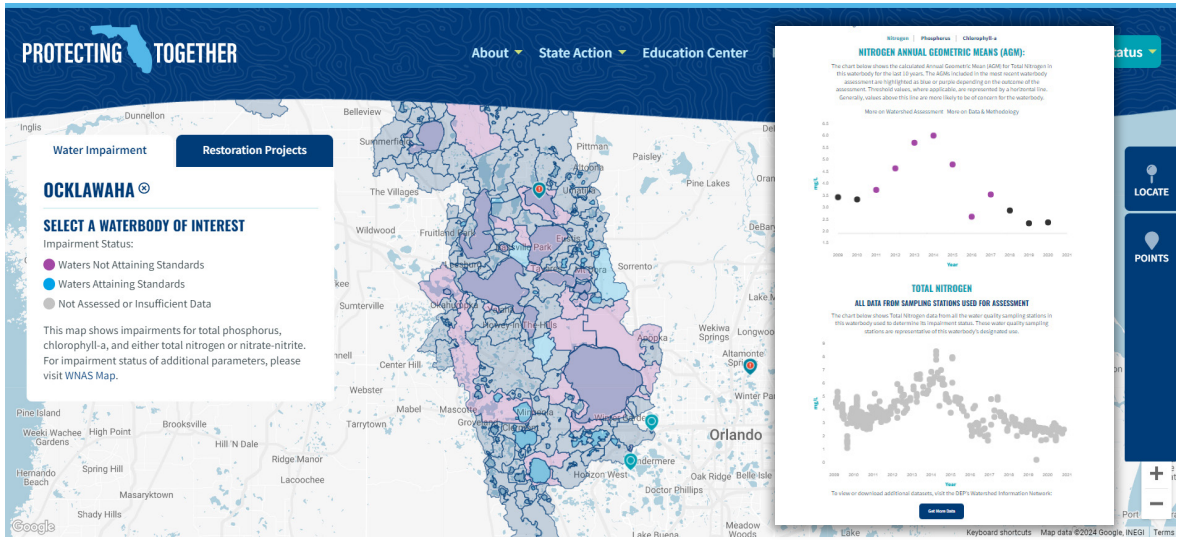
This project received $12.8 million from the state's Springs Grant Program.

ACCOUNTABILITY AND TRANSPARENCY

ACCESSIBLE DATA DESIGNED FOR THE PUBLIC

ProtectingFloridaTogether.gov

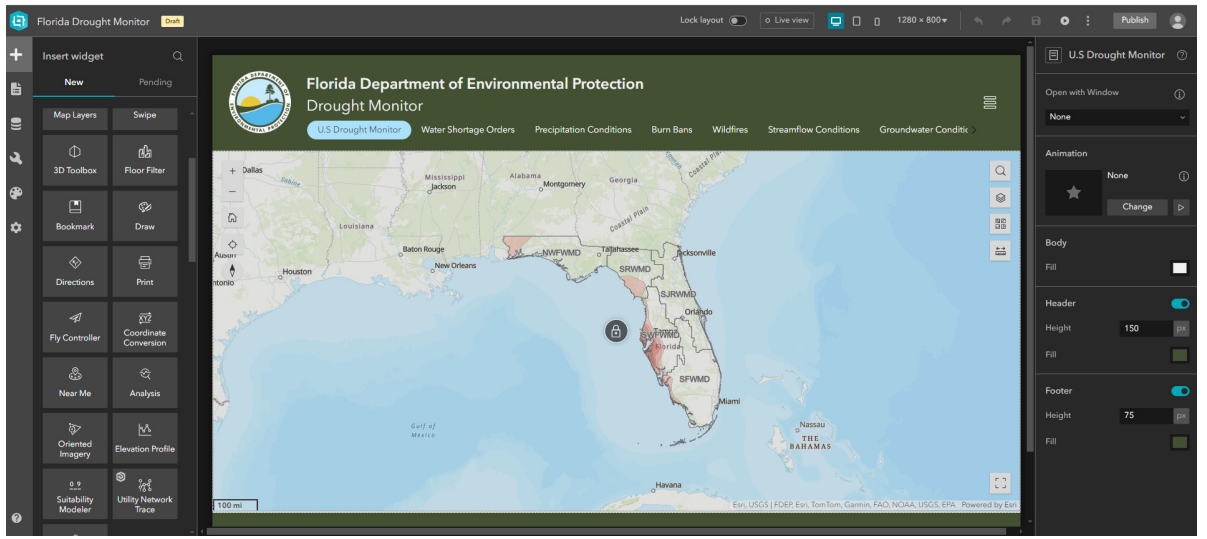
- Blue-Green Algae and Red Tide Sampling Data.
- Water Quality Impairment Status.
- Trends in Water Quality Samples.
- Notifications for Harmful Algal Blooms.
- Education Center.



Water Management Drought Dashboard

(under development)

- Water Shortage Orders.
- U.S. Drought Monitor.
- Burn Bans/Wildfires.
- Streamflow data (USGS).



THANK YOU

Kristine Morris
Florida Department of Environmental Protection

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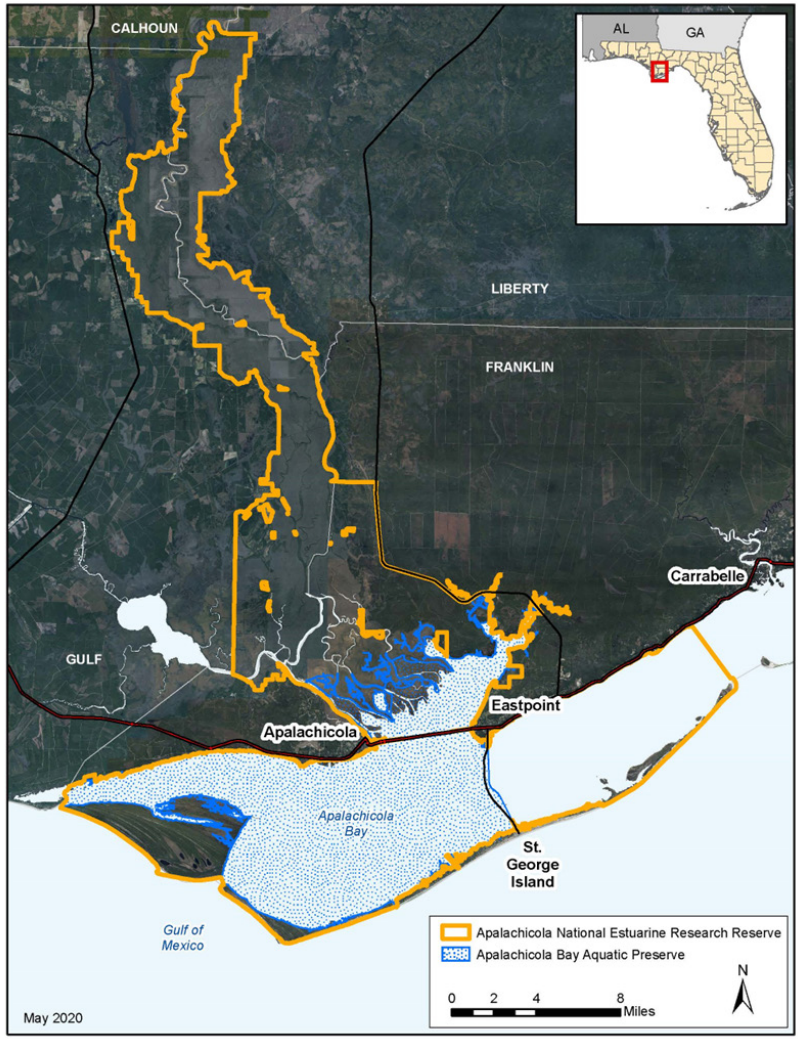
HOLISTIC MANAGEMENT AND RESTORATION PLANNING IN THE APALACHICOLA WATERSHED

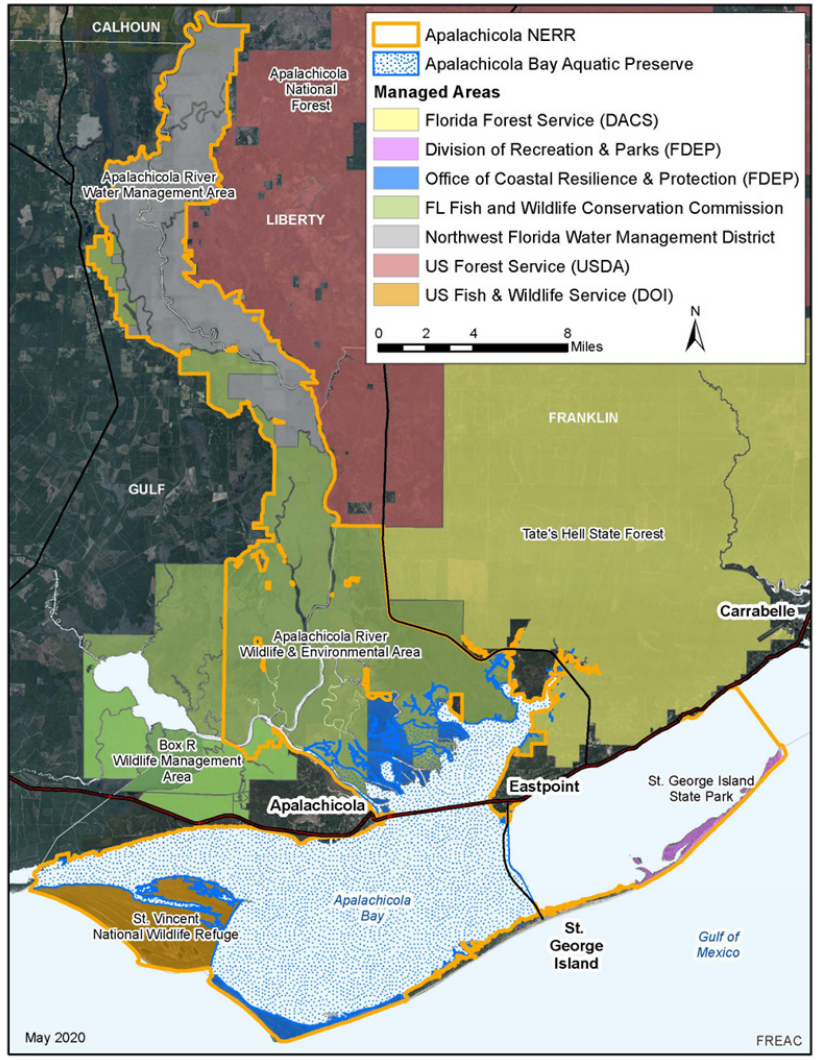
Apalachicola-Chattahoochee-Flint Waters Conference

APALACHICOLA NATIONAL ESTUARINE RESEARCH RESERVE



- The three Reserves in Florida are co-managed by the Florida Department of Environmental Protection and the National Oceanic and Atmospheric Administration.
- Under DEP, the Reserves are within the Office of Resilience and Coastal Protection.
- The Coastal Zone Management Act created the Reserve system to protect estuarine areas, provide educational opportunities, promote and conduct estuarine research and monitoring and transfer relevant information to coastal managers.
- 234,715 acres (roughly 50 miles N-S; 25 miles W-E).

PUBLIC LANDS/PARTNERS
LEVELS OF MANAGEMENT



- Significant State and Federal investment in the resources of the Apalachicola River and Bay System.
- Multiple levels of government – City, County, State, Federal (and Tribal).
- Non-governmental organizations.
- Land/Resource management by unit or species.

APALACHICOLA NERR MANAGEMENT AND RESTORATION

- Issue/Need.
- Science.
- Planning.
- Funding.
- Partnerships.
- Engagement.

APALACHICOLA BAY SYSTEM INITIATIVE

Mission:

- To understand why the oysters declined, why they haven't recovered and how to reverse the downward trend.
- To develop a set of community-based recommendations for the management and restoration of Apalachicola Bay.

Project Goals:

1. Develop tools (e.g. models, metrics), based on previous and ongoing research, to understand the Apalachicola Bay System (ABS) and inform restoration and management decisions.

2. Develop effective oyster reef restoration approaches.

3. Work with community members to develop an ***Apalachicola Bay Ecosystem-Based Adaptive Management and Restoration Plan (The Plan).***

PARTNERSHIP FOR A RESILIENT APALACHICOLA BAY

- The Partnership for a Resilient Apalachicola Bay will be a long-term work group that will advocate for the implementation of the plan into the future.

- The Partnership will review research and monitoring data to understand the condition of the resources and the success of restoration. They will then make recommendations to decision-makers on future management or restoration.

- Funding has been secured to hire the Partnership Coordinator for the first year and will continue with funding through Apalachicola National Estuarine Research Reserve (ANERR) for another three years.

APALACHICOLA RIVER AND BAY SYSTEM
MORE HOLISTIC MANAGEMENT AND RESTORATION

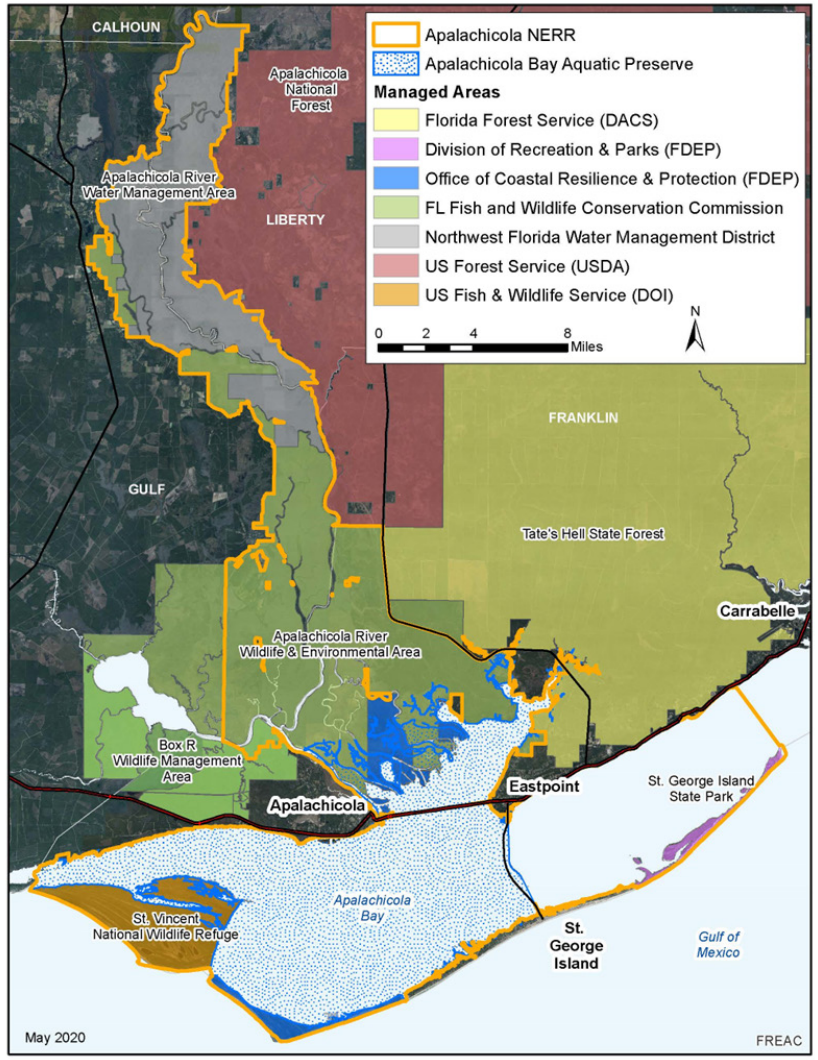
- Partnerships.
- Engagement.
- Issue/Need.
- Science.
- Planning.
- Funding.

- Geographic Scope?
- Issue Driven?

- Stakeholder Engagement
- Support resources needed/improved?
- What is sustainable?

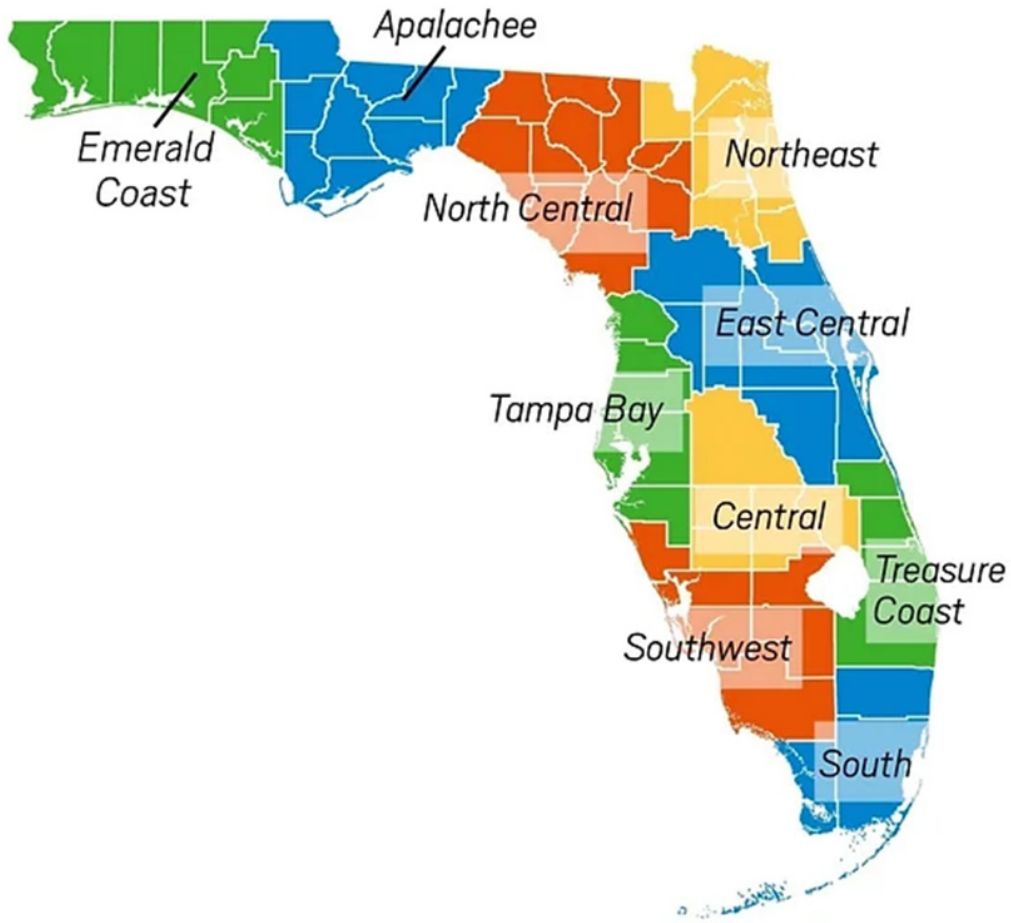
APALACHICOLA RIVER AND BAY SYSTEM

LOCAL WORKGROUPS AND PARTNERSHIPS



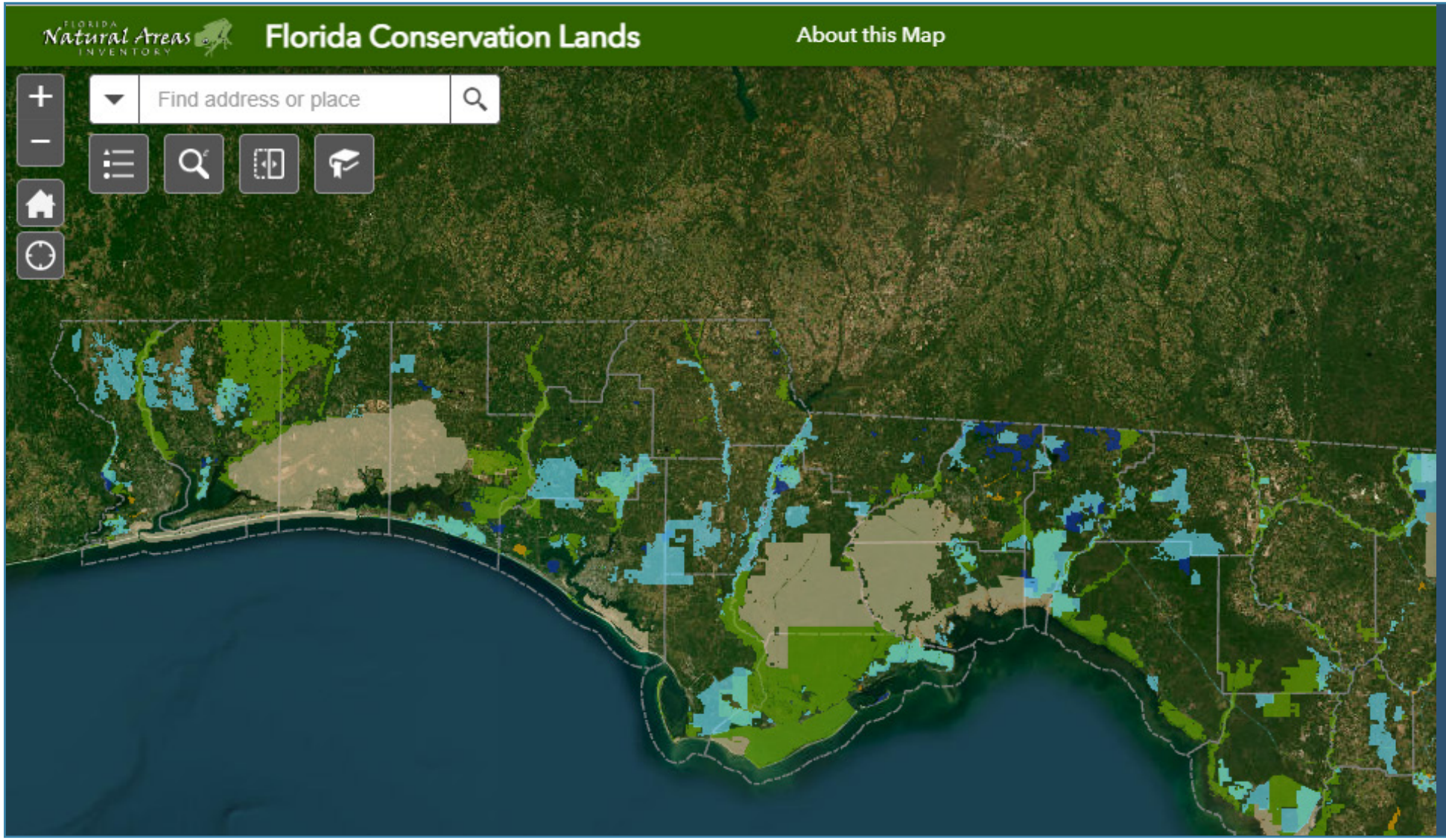
- Advisory Committees and Groups.
- Apalachicola Bay System Initiative / Partnership for a Resilient Apalachicola Bay.
- Riparian County Stakeholder Coalition.
- Apalachicola Regional Stewardship Alliance.
- MOUs.

GEOGRAPHIC SCOPE
REGIONAL PLANNING COUNCILS



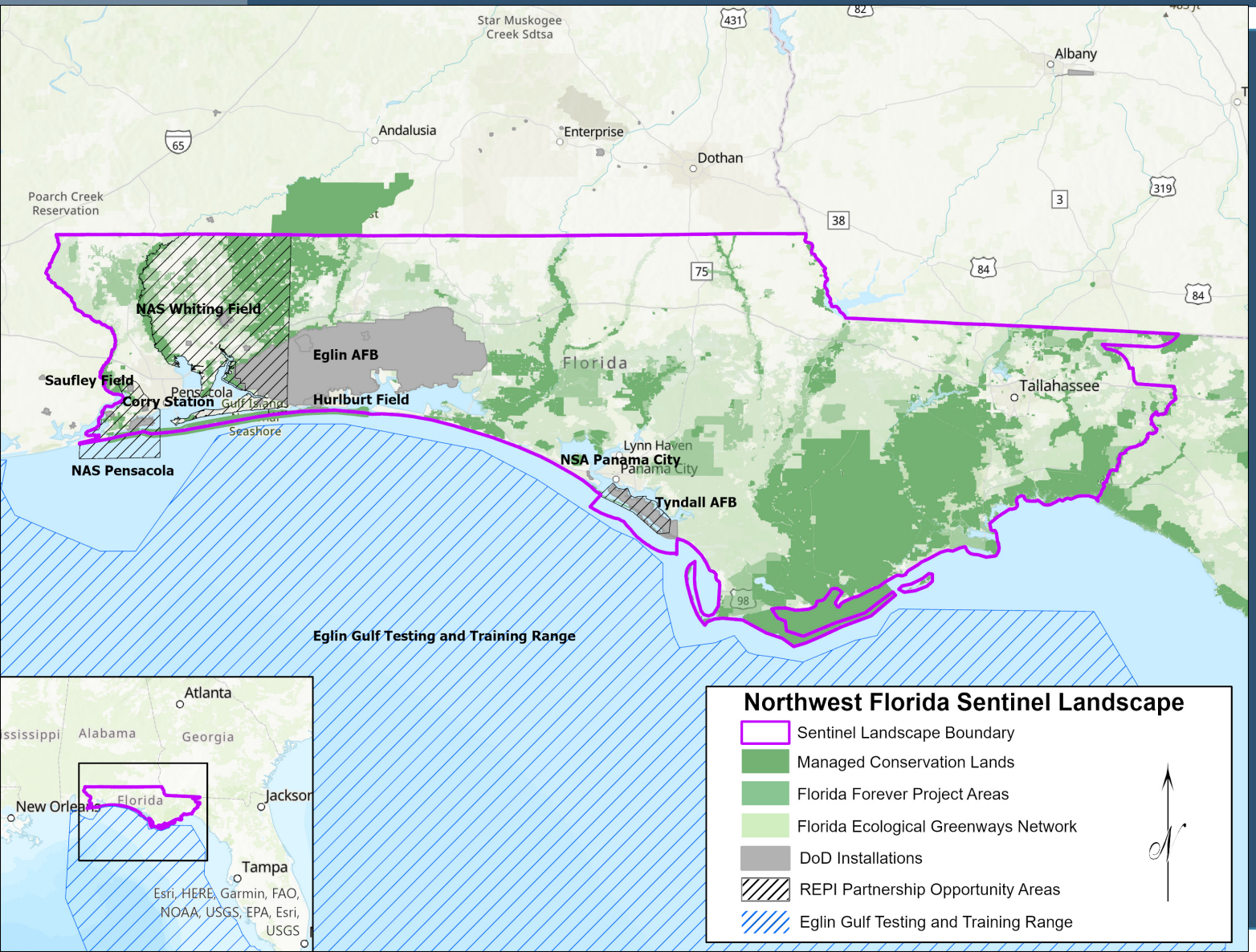
- All levels of government.
- Convene Stakeholders on a variety of issues:
  - Transportation planning.
  - Economic development.
  - Emergency preparedness.
  - Housing.
  - Infrastructure.
  - Community Development.
- Surface Water Improvement and Management Plans.
- Regional Resilience Entity.

STATEWIDE
LAND ACQUISITION - FLORIDA FOREVER



- Buffers.
- Wildlife corridors.
- Habitat migration pathways.

FLORIDA PANHANDLE
REGIONAL INITIATIVES



Northwest Florida Sentinel Landscape

- SERPPAS – Southeast Regional Partnership for Planning and Sustainability.

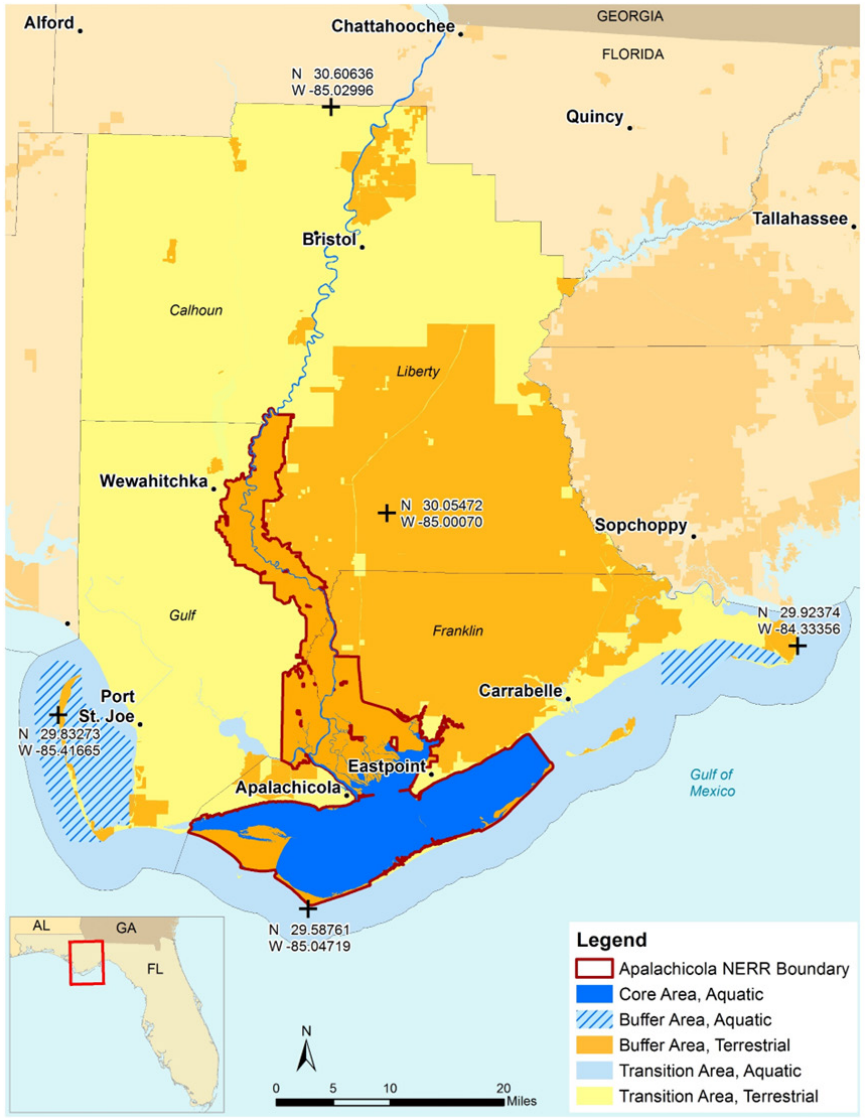
Partnership for the Local Adaptation to Climate Effects: Sea Level Rise.

Panhandle Estuarine Restoration Team.

Estuary Programs

- Pensacola-Perdido Bay EP.
- Choctawhatchee EP.
- St. Andrew's Bay – St. Joseph Bay EP.

WATERSHED LEVEL – 6 COUNTIES (APALACHICOLA BIOSPHERE REGION)



Statutory Framework Article 4 Criterion number 5	Criteria established by the Rocky Mountain BR (Approved by the MAB-ICC in March 2016)	Designations & Partnerships	Authorities
(a) a legally constituted core area or area devoted to long-term protection, according to the bioshphere reserve, and of sufficient size to meet these objectives.	One or more securely "Protected Areas" such as wilderness areas or research natural areas, for conservation and monitoring of minimally disturbed ecosystems. For the Apalachicola BR, the core area is the same as the boundary of the BR or the National Estuarine Research Reserve	National Estuarine Research Reserve	Federal; National Oceanic and Atmospheric Administration; Coastal Zone Management Act
		Apalachicola Bay Aquatic Preserve	State of Florida; Department of Environmental Protection; Rule 18-20
(b) a buffer zone or zones clearly identified and surrounding or contiguous to the core area or area, where only activities compatible with the conservation objectives can take place.	"Managed Use Areas" surrounding the protected areas, where research, educational activities, public recreation, and various economic activities occur according to ecological principles. For the Apalachicola BR, the Buffer or Managed-Use area includes public (Local, State and Federal) lands adjacent to the BR.	State Buffer Preserve	State of Florida; Department of Environmental Protection; Rule 18-23
		St. George Island State Park	State of Florida; Department of Environmental Protection; Rule 62D-2
		St. Vincent National Wildlife Refuge	Federal; Department of Interior; National Wildlife Refuge System Administration Act
		Apalachicola Wildlife and Environmental Area	State of Florida; Florida Fish and Wildlife Conservation Commission; Rule 68A-17 and
		Water Management Area	State of Florida; Northwest Florida Water Management District; Rule 68A-15
		Box-R Wildlife Management Area	State of Florida; Florida Fish and Wildlife Conservation Commission: Rule 68A-15
		Apalachicola National Forest	Federal; United States Department of Agriculture (USDA); National Forest
		Tate's Hell State Forest and Wildlife Management Area	State of Florida; Department of Agriculture and Consumer Services; Rule 5I-4
(c) an outer transition area where sustainable resource management practices are promoted and developed	"Areas of Partnership and Cooperation" are issue-driven partnerships or agreements, informed by science, to achieve a management outcome to protect the biosphere reserve (BR). A BR can have more than one issue-driven partnership that reflects the need such as air quality, migratory species, water quality, etc. For the Apalachicola BR, we focused on the four counties surrounding the BR.	City of Apalachicola City of Carrabelle Franklin County Eastpoint Water and Sewer District Department of Community Affairs Department of Transportation Dept. of State; Historical Resources Division Apalachee Regional Planning Council Soil and Water District (USDA)	* These entities work cooperatively with the Reserve under an Administrative Agreement * The Reserve engages with these entities, as well as others through regular meetings of the Reserve Advisory Committee * The Reserve's Coastal Training Program regularly meets with these groups to identify key issues which the Reserve will work to address.

APALACHICOLA COMPREHENSIVE PLANNING AND COORDINATION BLUEPRINT

Task 1: Identify, collect, review and summarize Land Management Plans and Planning Documents from various entities related to Conservation Lands and the management of natural resources within the Apalachicola River Watershed.

Task 2: Identify funding opportunities for land acquisition (or conservation), restoration projects and areas of needed study; facilitate workgroup development a/o project leads for proposal development.

Task 3: Synthesize pertinent status and trends data, research, restoration science and modeling efforts to identify research gaps and needs.

Task 4: Deliver information to stakeholders through interactive maps, participation in the Apalachicola Research Symposium and updates to the 2008 Apalachicola Reserve Site Profile.

APALACHICOLA COMPREHENSIVE PLANNING AND COORDINATION BLUEPRINT

Milestones To-Date:

- Identification of 190 interested parties (stakeholders) in the Watershed.
- Over 70 management plans, restoration plans and strategic plans.
- 100s of research publications related to work in the Apalachicola System.
- Held coordination meeting with interested parties on March 1st.

Next Steps:

- Continue synthesizing planning documents and research.
- Interested Parties meeting.
- Review of the draft blueprint.
- Follow up on near-term funding opportunities.

FUTURE WORK: LINKING NATURAL COMMUNITIES AND HUMAN COMMUNITIES

- Linking natural communities (NCs) and human communities (HCs) - ecosystem services, economic valuation, economic contribution.
- How do we measure the impacts of proposed actions on our NCs and HCs?
- How will climate impact our NCs and HCs? Vulnerabilities? Resilience?

THANK YOU

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Florida Department of Environmental Protection

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