



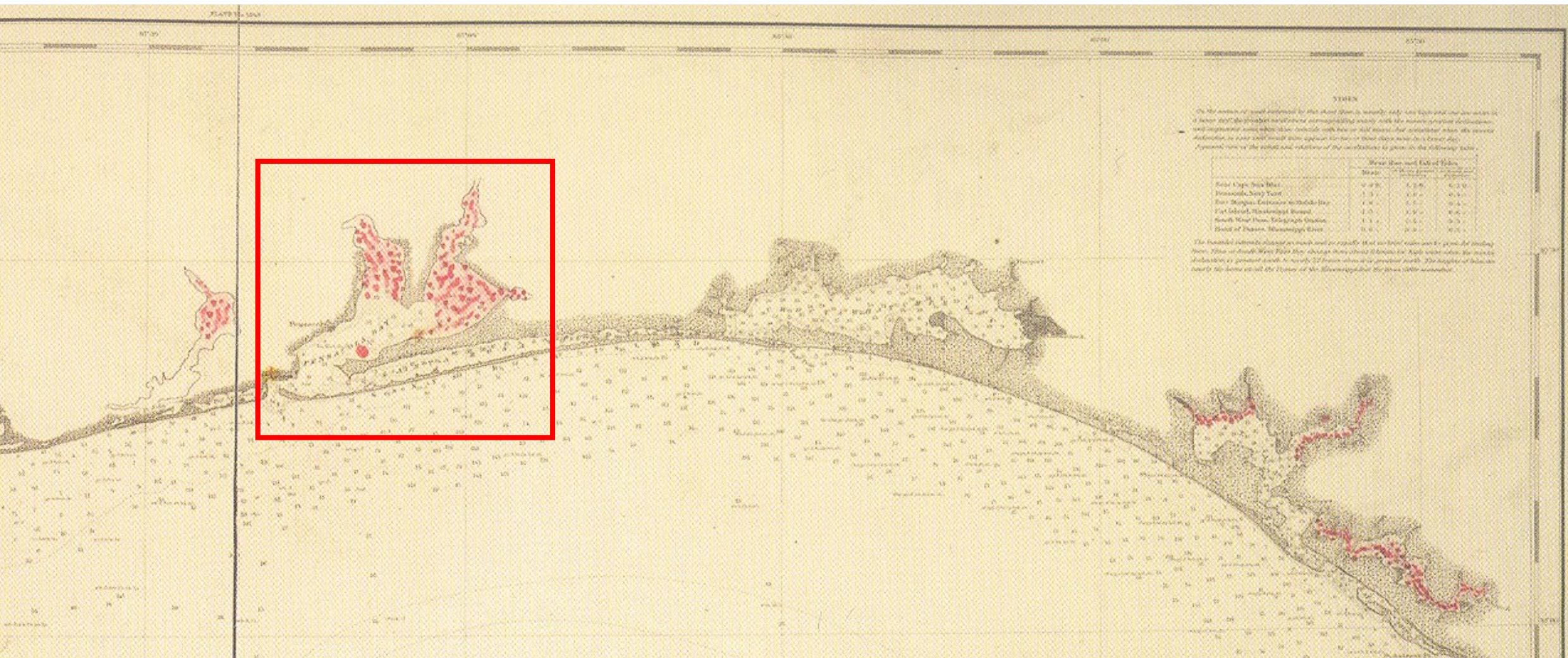
PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Pensacola Bay
Oyster Restoration Initiative

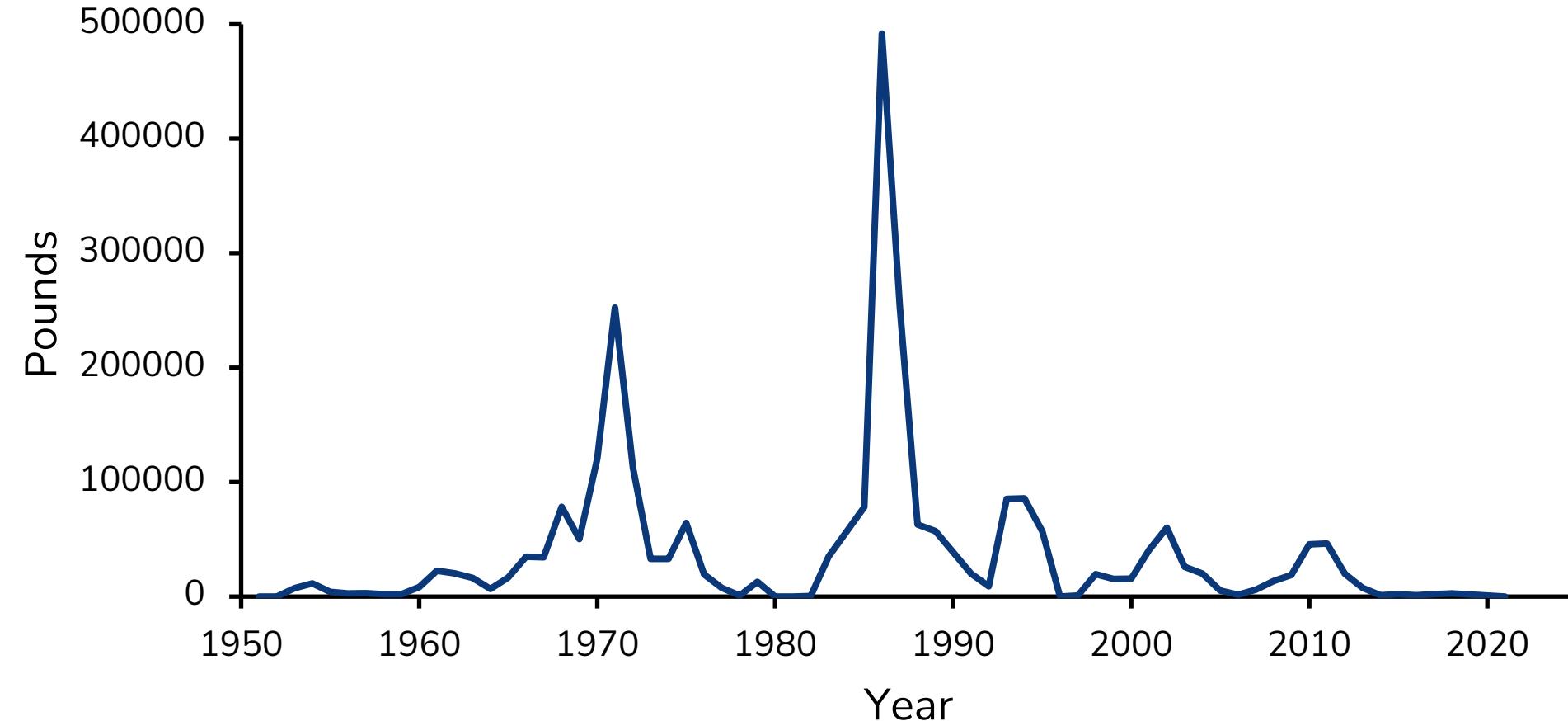
Whitney Scheffel, Senior Scientist

April 17, 2025

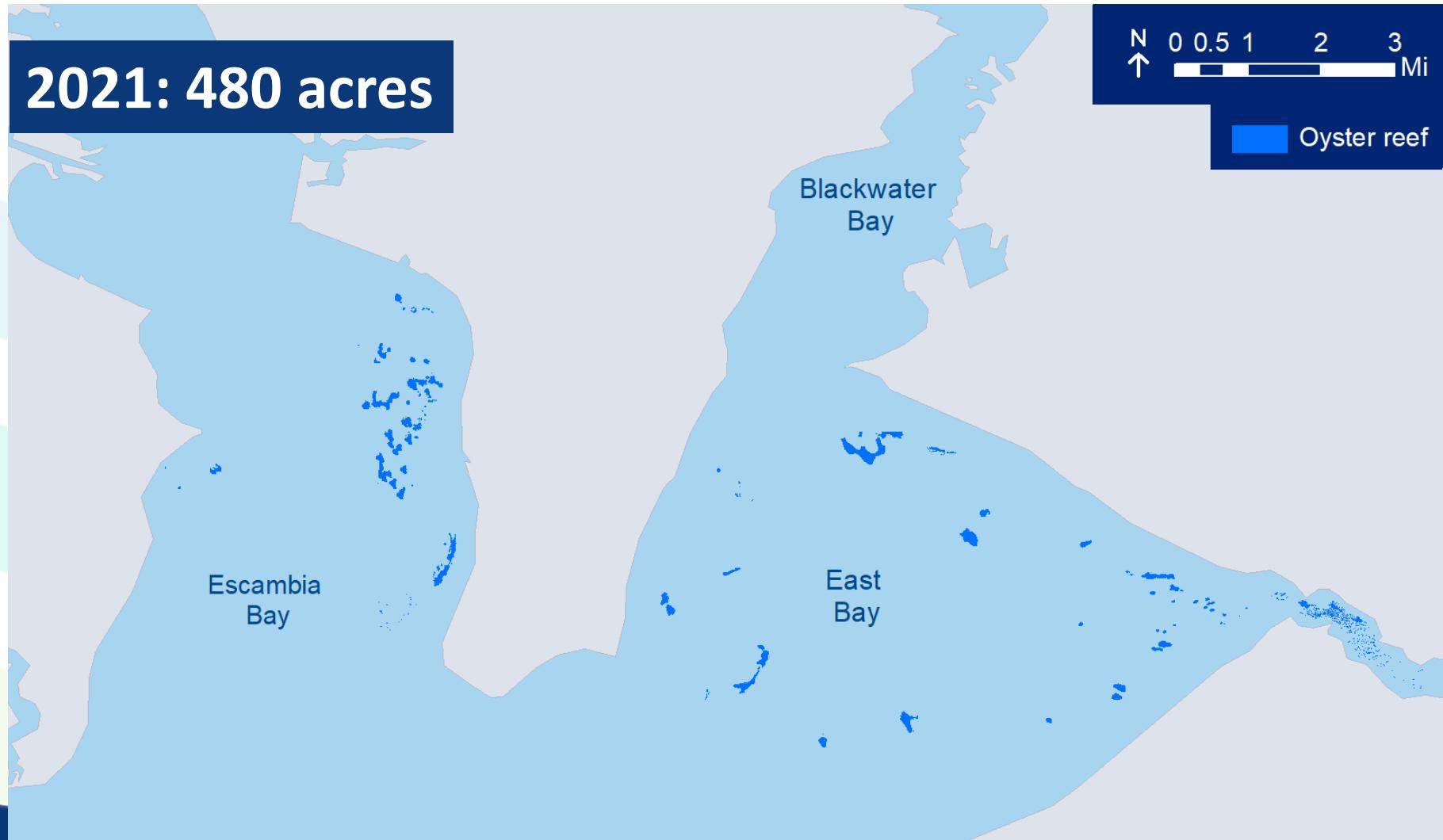
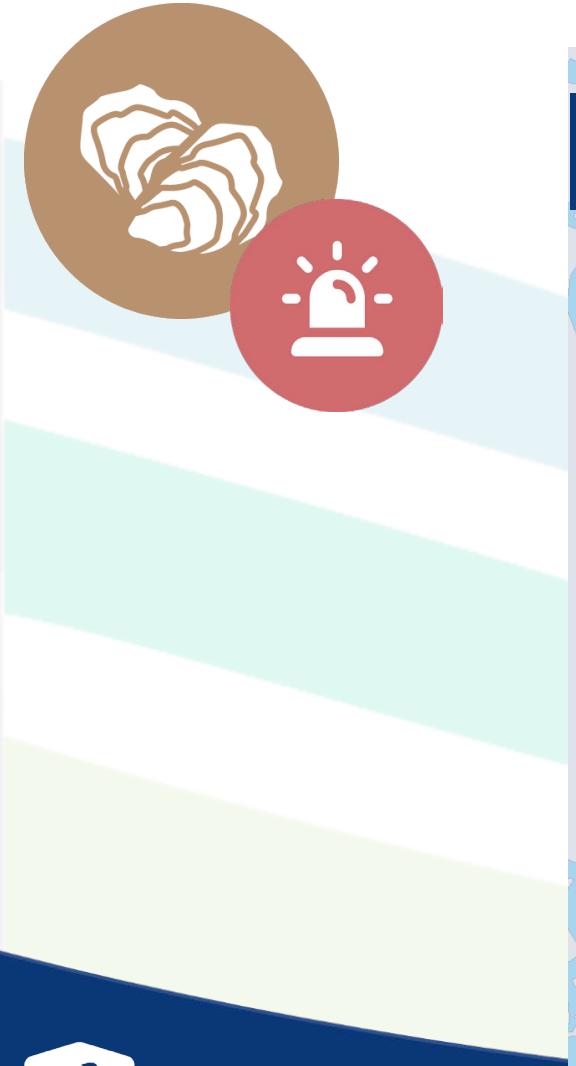
Historical Oyster Reef Extent



Oysters Harvested from Pensacola Bay



Oyster Reefs in Critical Condition



PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Co-Developing a Plan for the Future

78 Stakeholder Interviews

27 Working Group Members/ 14 Alternates

3 In-Person Meetings

9 Virtual Meetings

2 Watermen Workshops

7 Watermen Members attended meetings/workshops

24 Presentations by invited experts/TNC staff

18 Months of Working Group meetings (Oct. 2019-March 2021)

>800 Combined hours of time spent by meeting participants



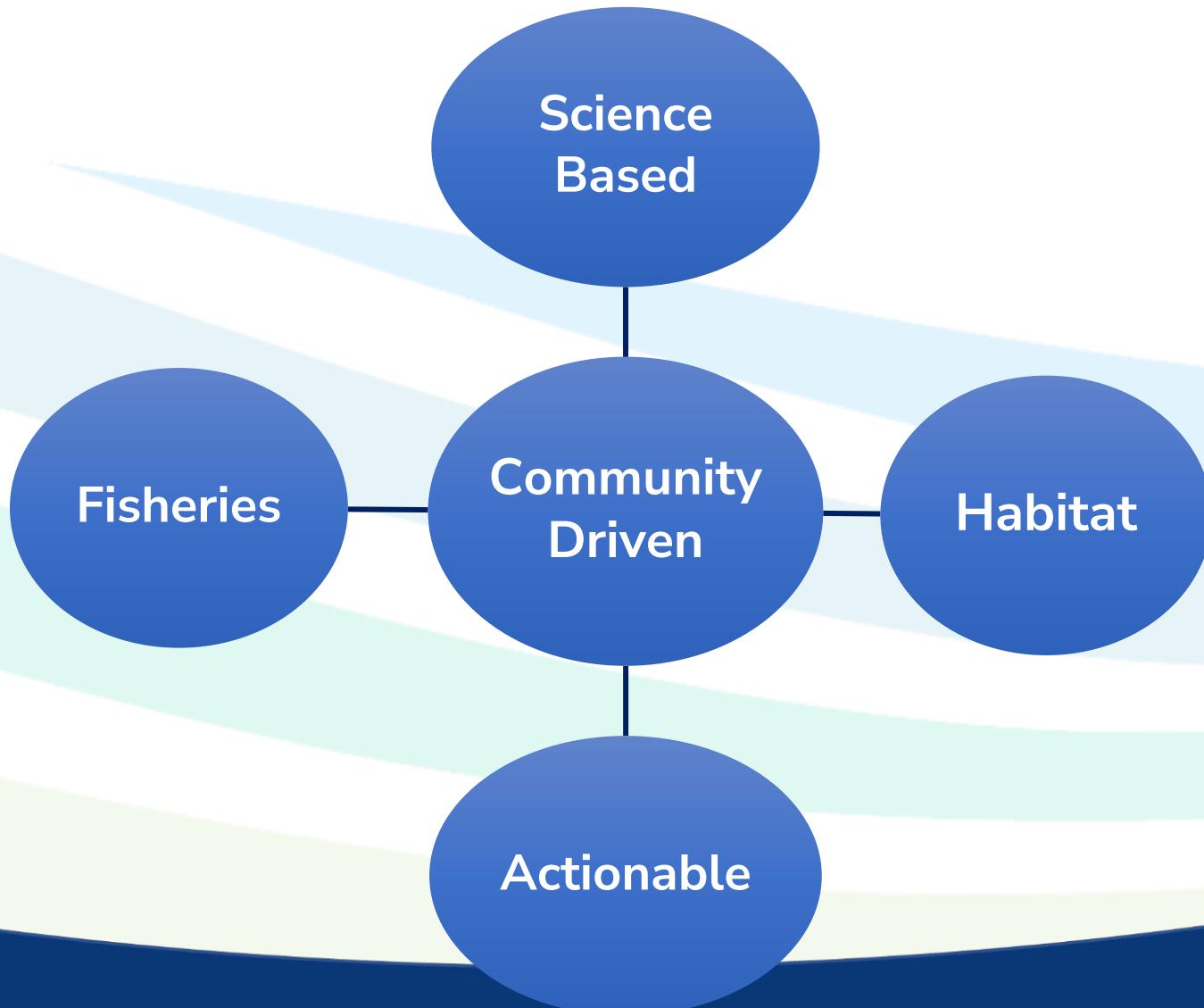
PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Cross-Sector Community Representation



PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

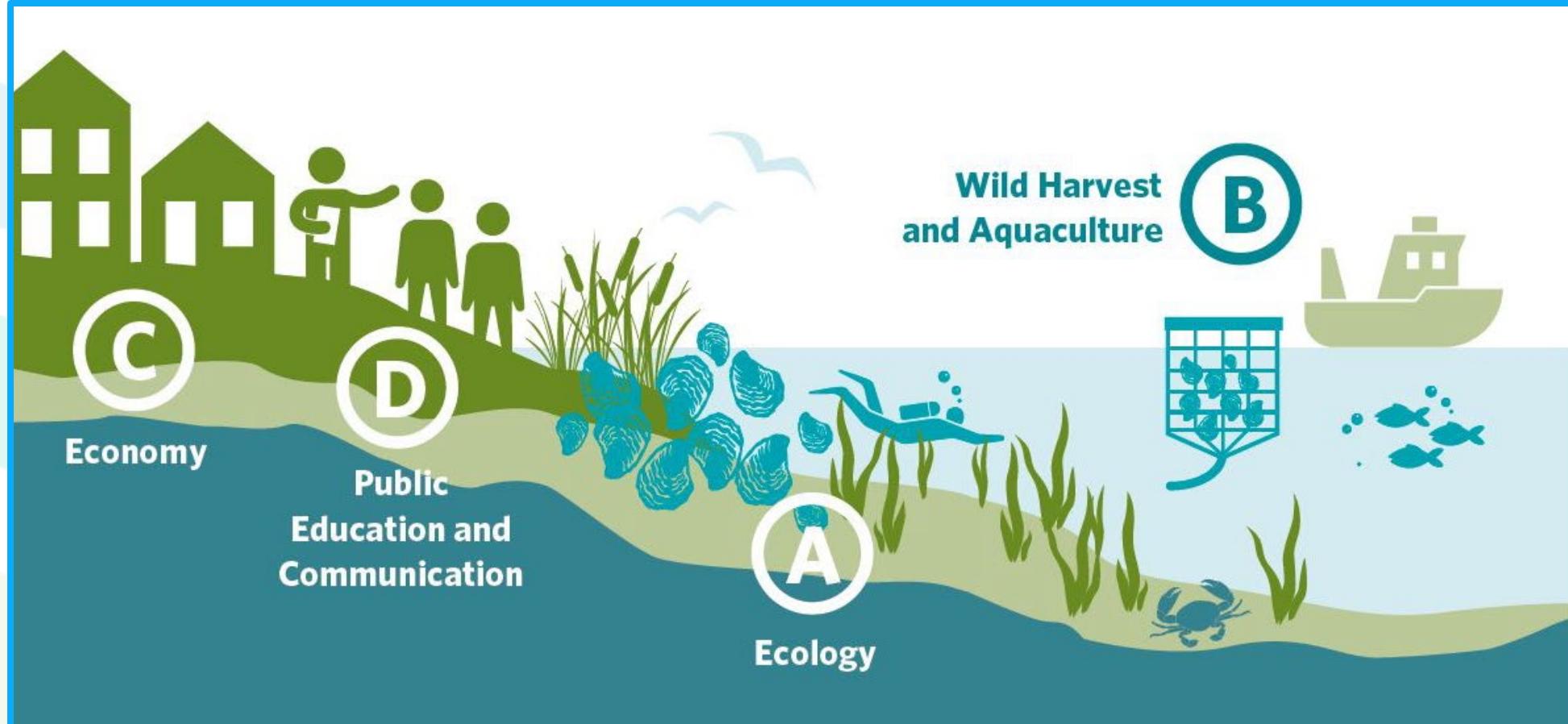
Ecosystem-Based Fisheries Management



PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

The Nature
Conservancy 

Pensacola Bay System Oyster Fisheries and Habitat Management Plan



Implementing the Plan



CCMP Goals



GOAL 1
SOURCE OF
WATERSHED
INFORMATION



GOAL 2
STRENGTHEN
COMMUNITY
RESILIENCE



GOAL 3
IMPROVE
WATER QUALITY



GOAL 4
REDUCE
SEDIMENT
SOURCES



GOAL 5
CONSERVE AND
RESTORE CRITICAL
HABITAT

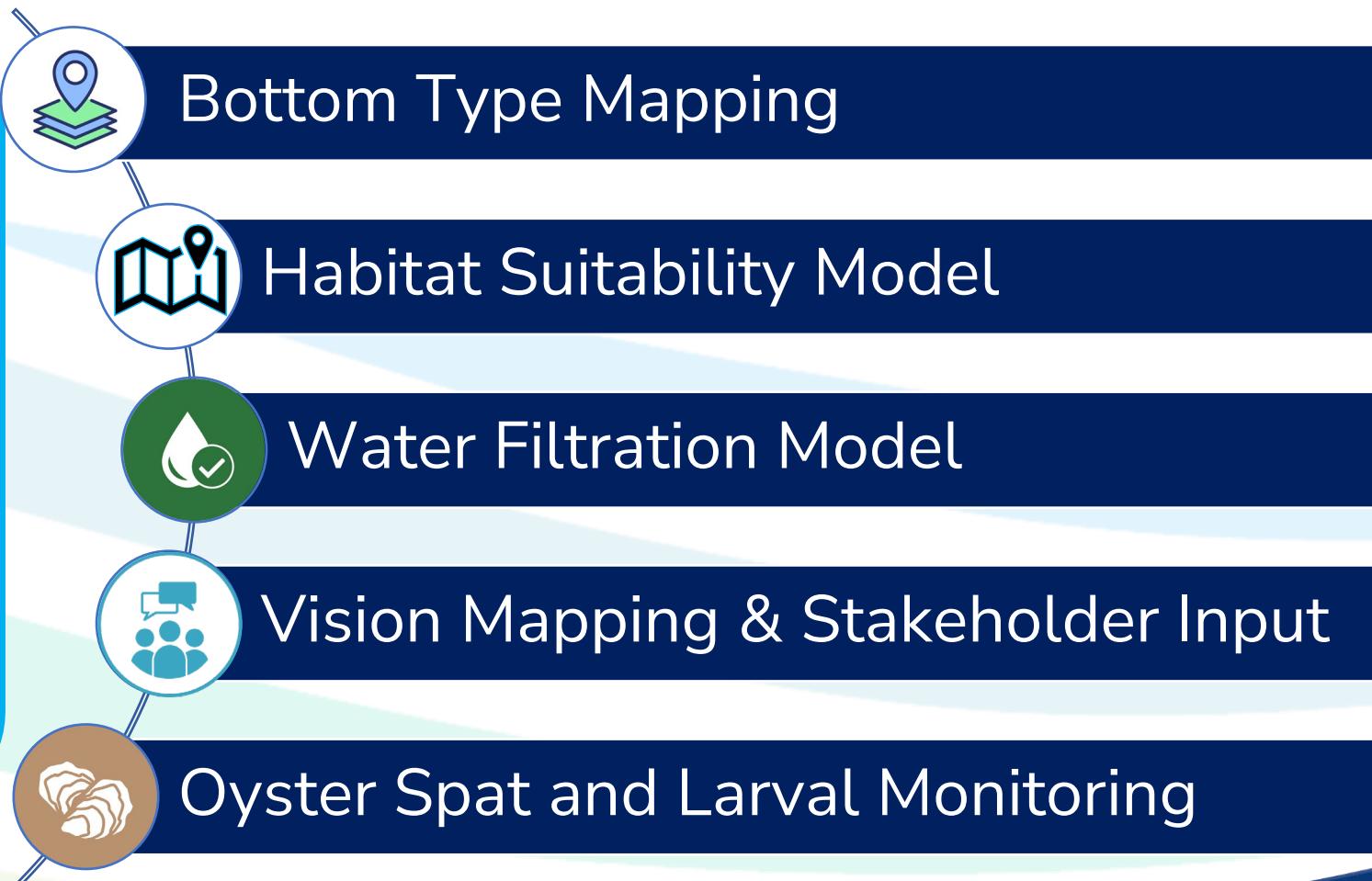


GOAL 6
RESTORE AND
CONSERVE FISH
AND WILDLIFE



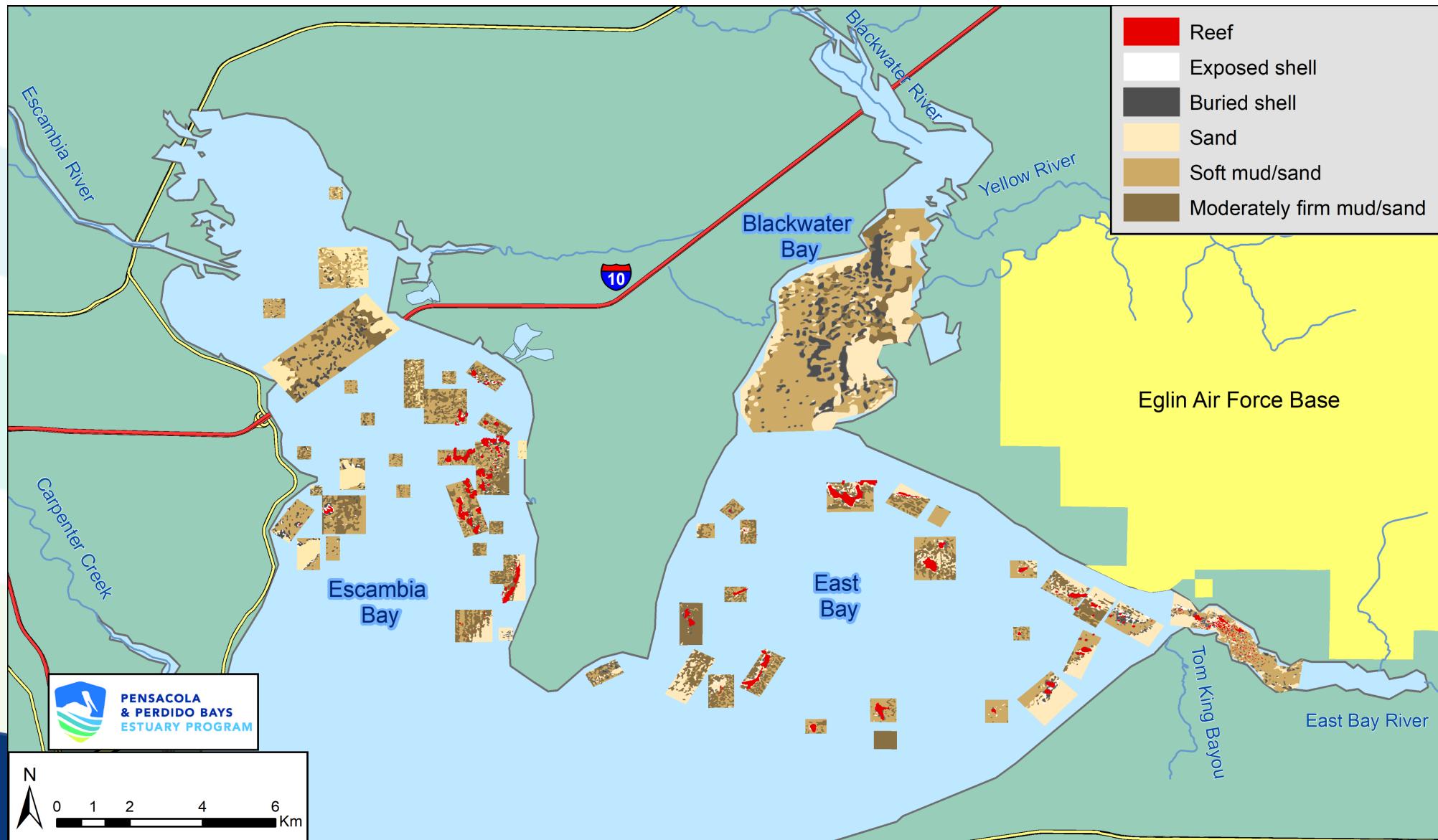
PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Data Collection Efforts

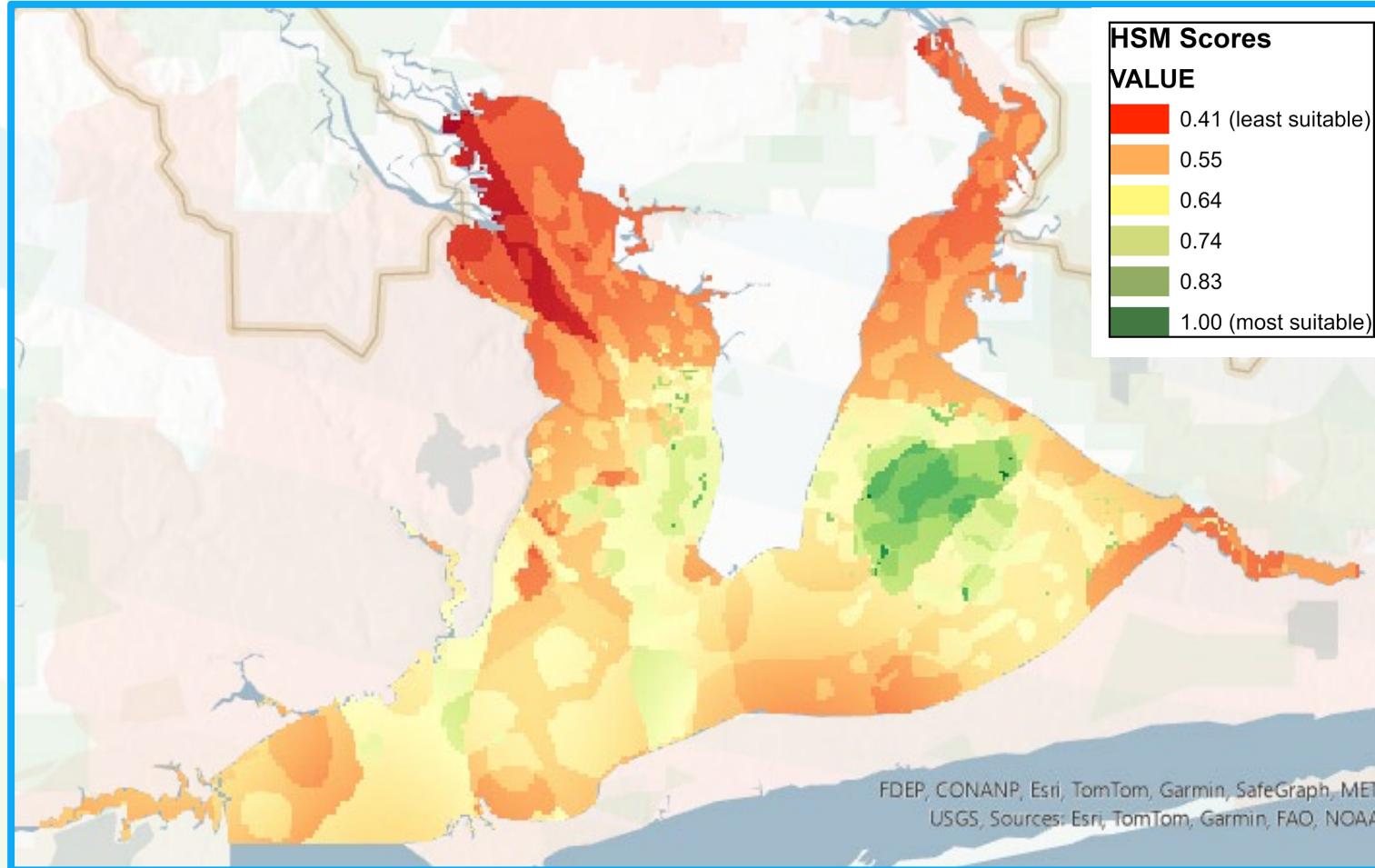


PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Bottom Mapping and Condition Assessment



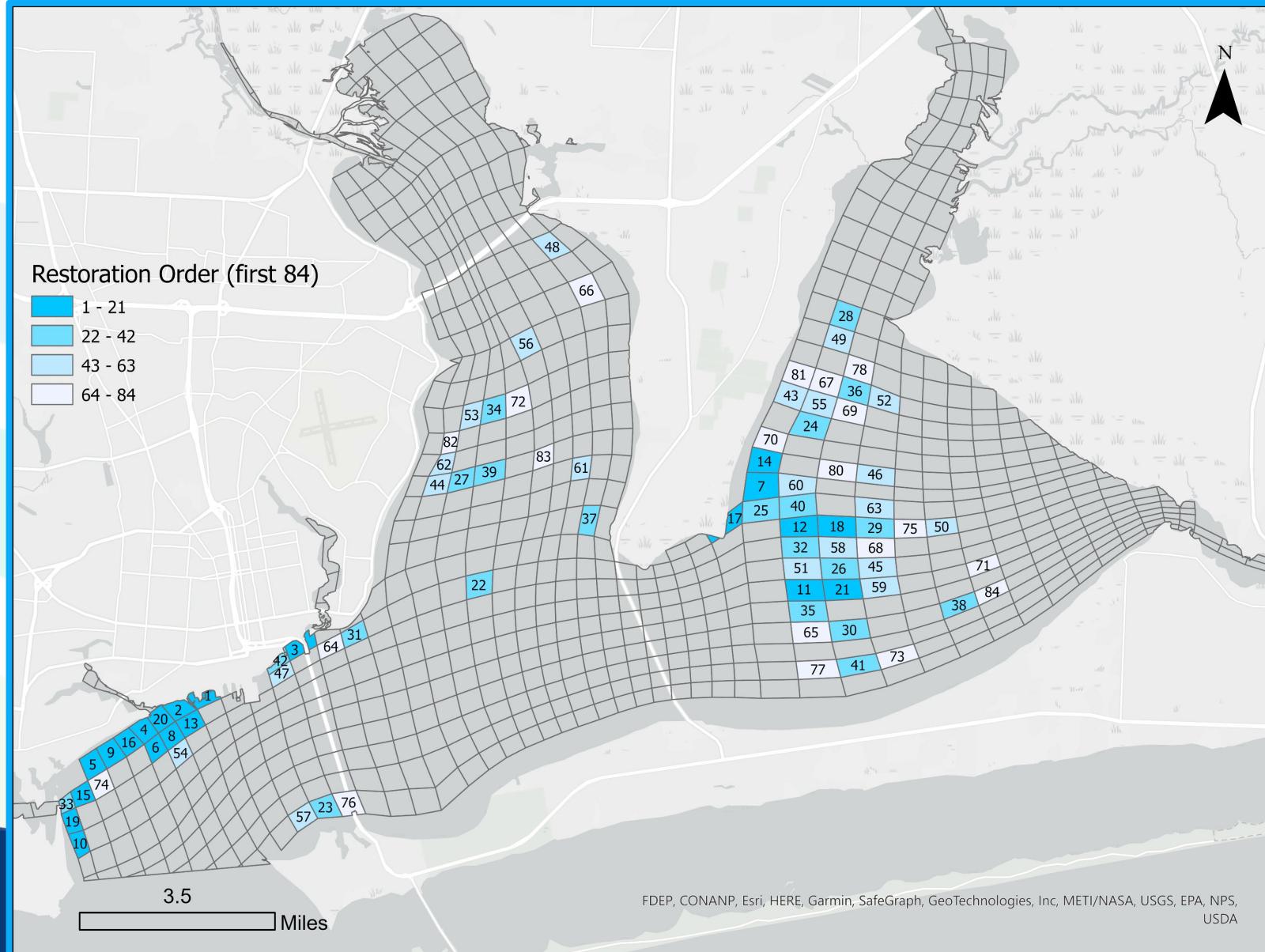
Where is it most suitable for oysters?



- Salinity
- Current oyster reefs
- Dissolved oxygen
- Substrate type
- Larval recruitment
- Historical oyster reefs
- Temperature
- Turbidity
- Chlorophyll-a



Water Filtration Model

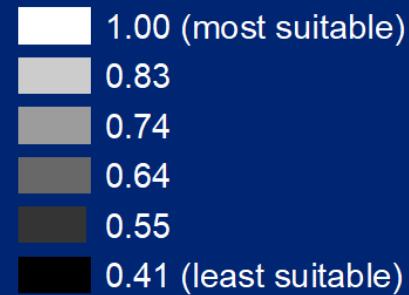
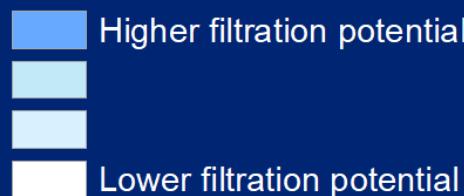
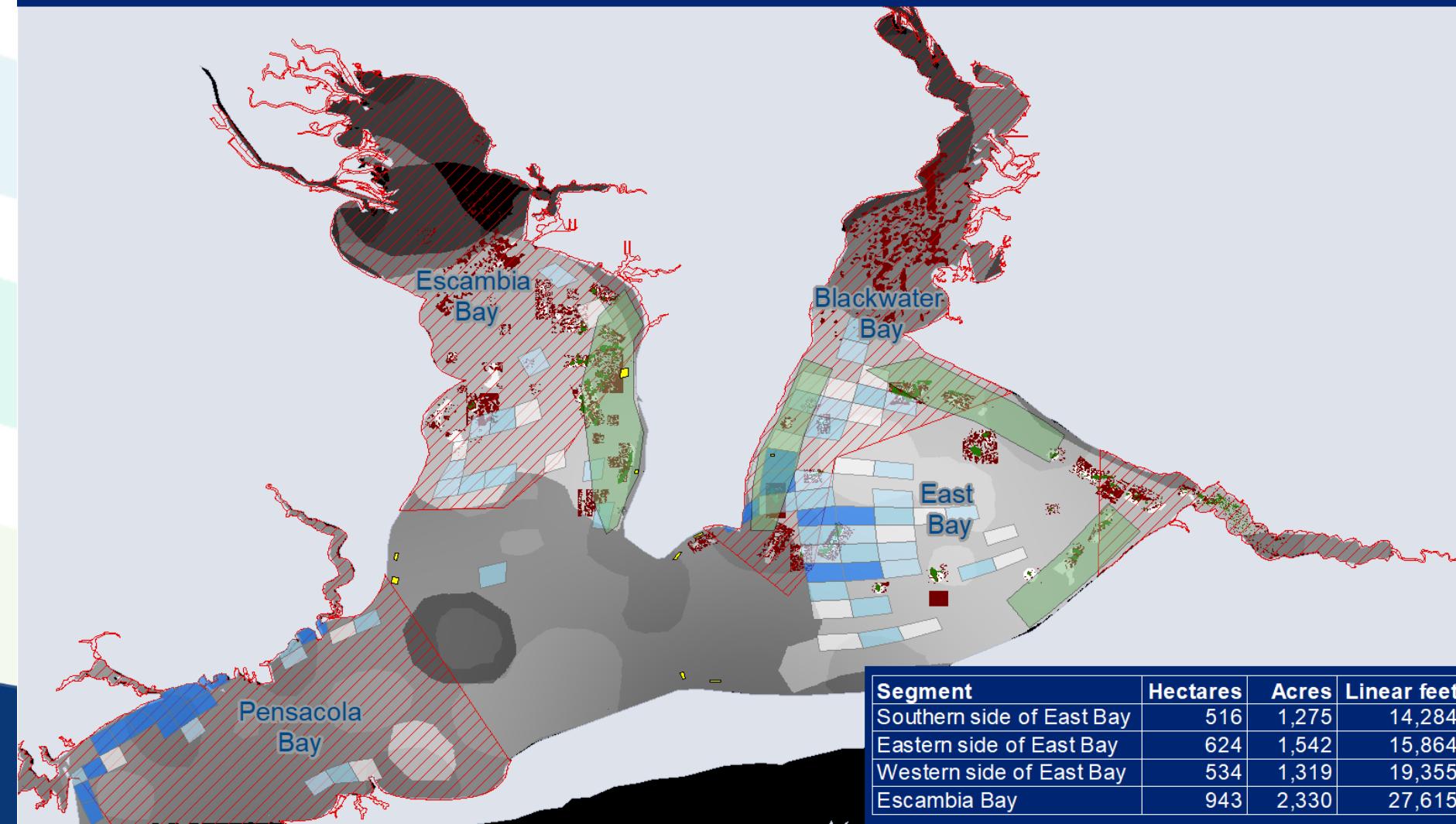


PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Oyster Vision Mapping

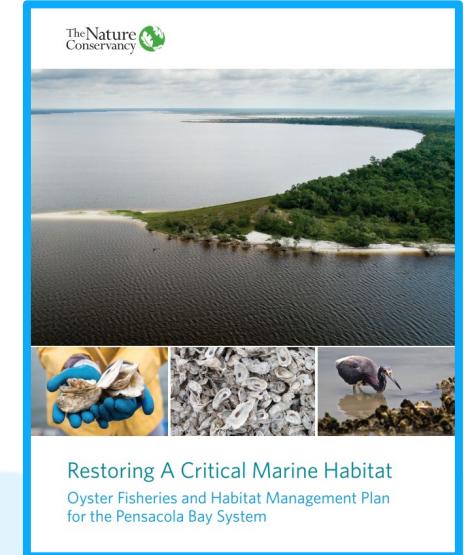
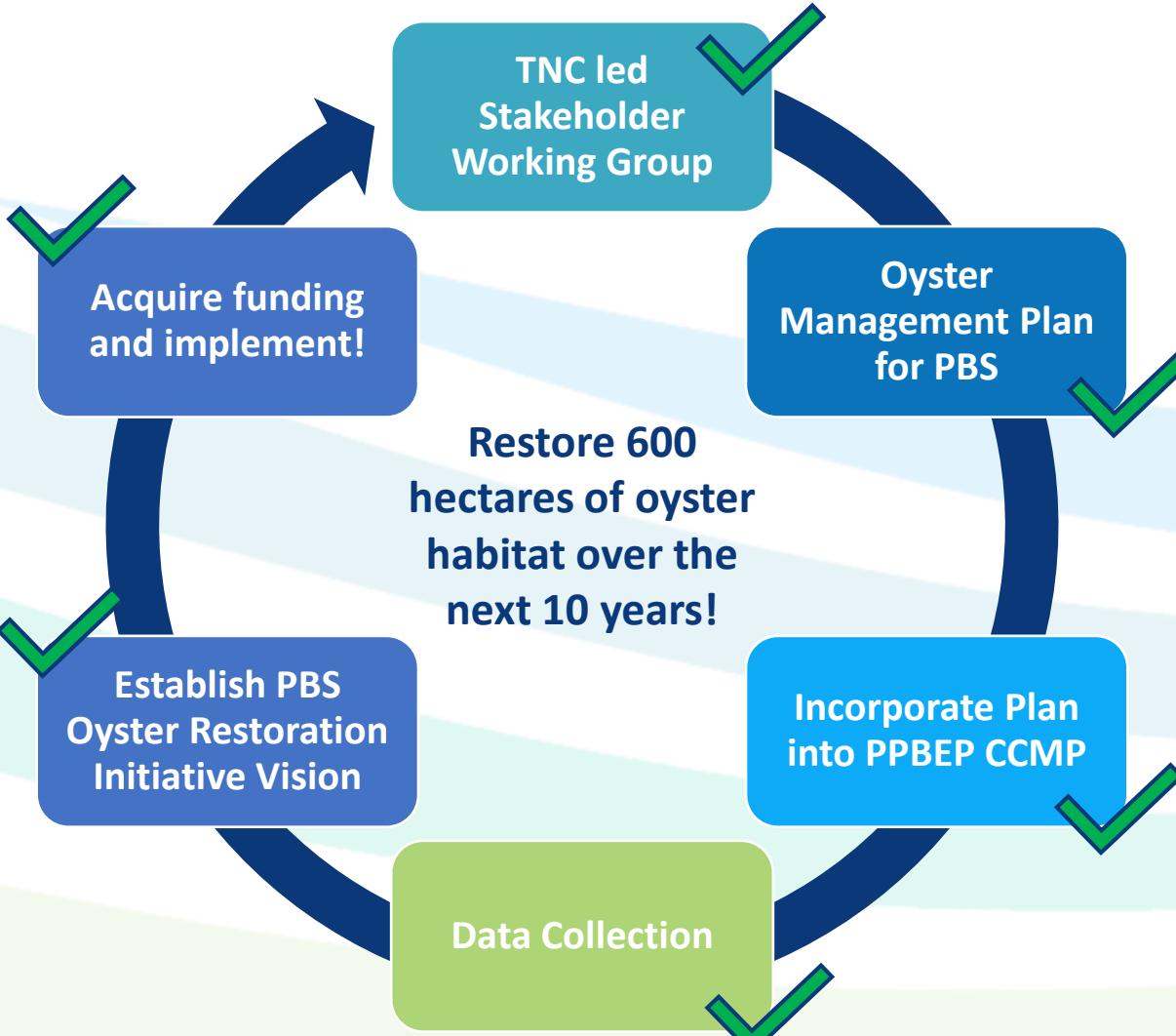


PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Habitat Suitability**Filtration Capacity****Suitable Substrate**

Segment	Hectares	Acres	Linear feet
Southern side of East Bay	516	1,275	14,284
Eastern side of East Bay	624	1,542	15,864
Western side of East Bay	534	1,319	19,355
Escambia Bay	943	2,330	27,615

How Did We Get Here?



PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Jacobs Challenging today.
Reinventing tomorrow.

Where are We Now?



Pensacola Bay Oyster Restoration Initiative



Awarded: \$10.9 M

Long - Term Target

Restore 600 ha (~1,500 acres) over 10 years

Short - Term Target

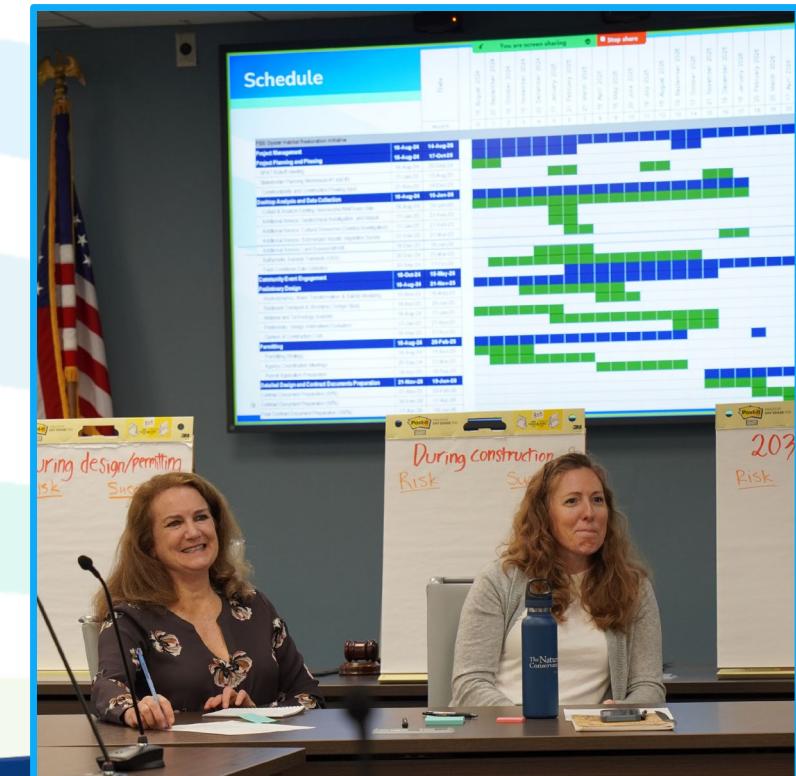
Restore up to 100 ha (~250 acres) over 4-5 years



PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

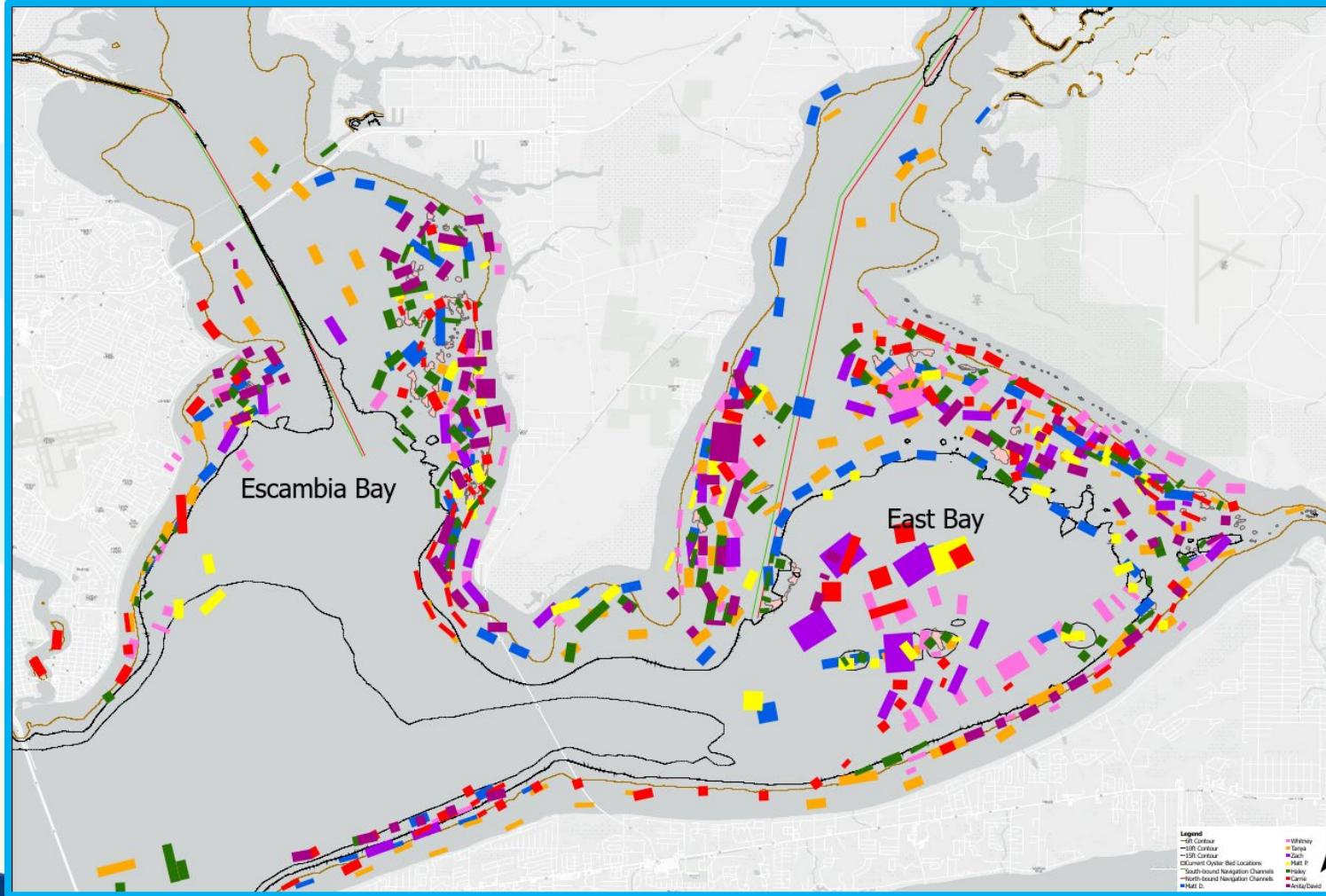
Guided by Interdisciplinary Project Advisors

- Special Project Action Team (SPAT)
- Oyster Sub-Committee
- Wild Harvesters, Aquaculture Farmers, Tribal Members



PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Scaling Up Restoration



- One Program
- One bay-wide permit
- Multiple restoration techniques

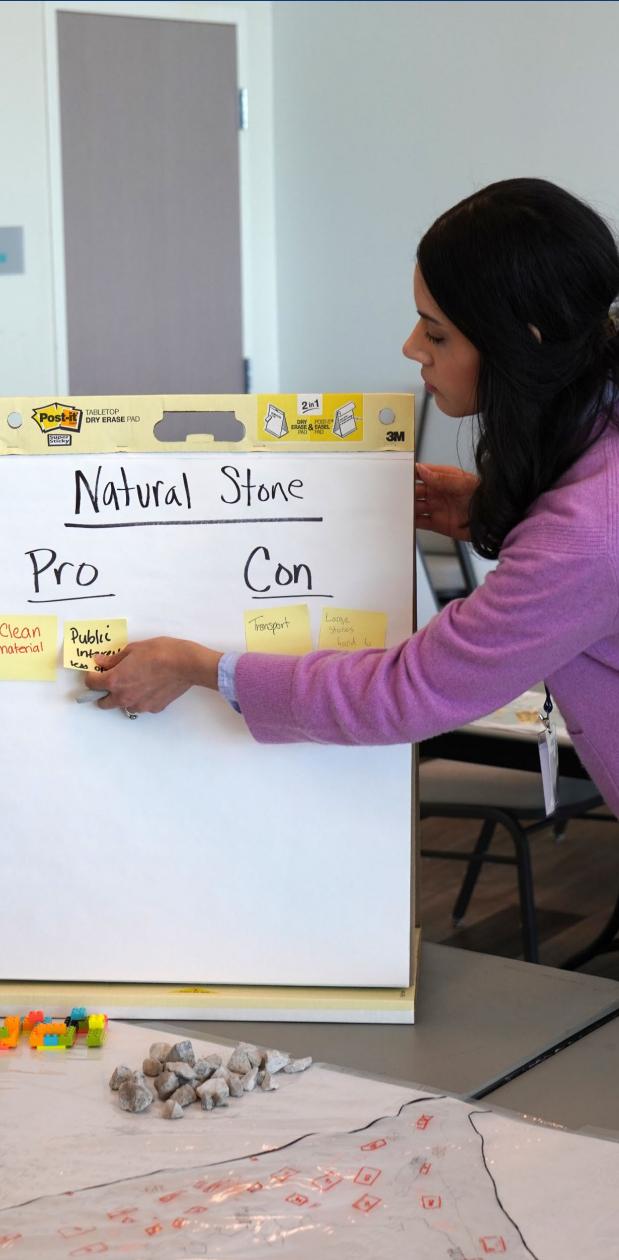


Part 1: Design and Permitting

- Jacobs Engineering
- Stakeholder Meeting #1 refining reef placement and materials
- Next steps: 30, 60 and 90% designs and continued community engagements



Oyster Restoration Design Workshop



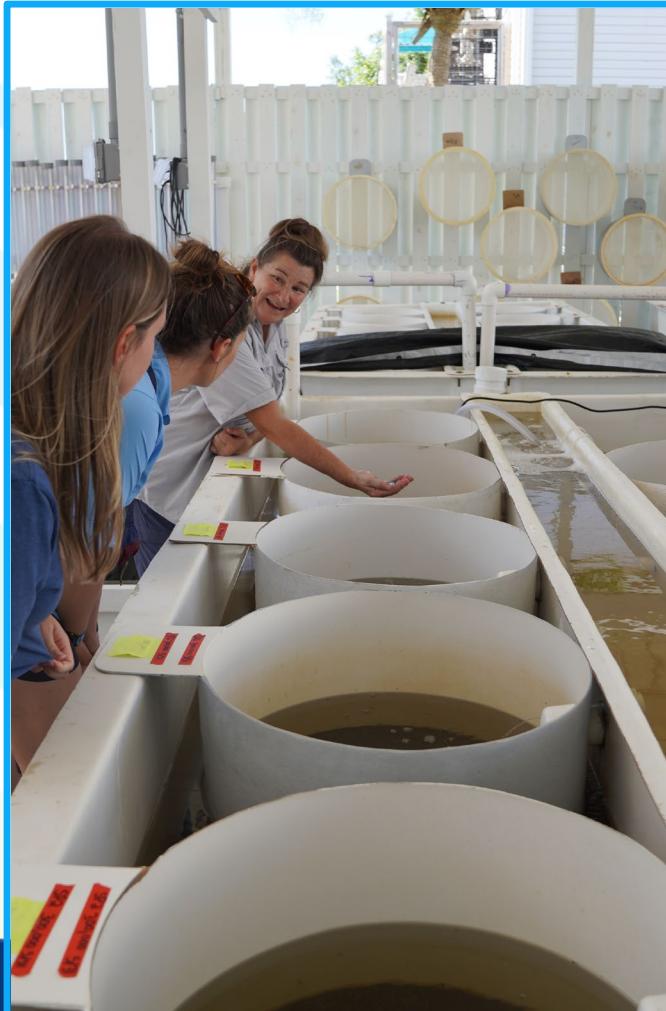
Part 2: Restore Up To 250 acres

- Restoration will include both **harvestable** and **non-harvestable reefs**
- **Partnering with** local oyster industry, volunteers, Oyster Corps, marine contractors, etc.



Supporting Local Industry

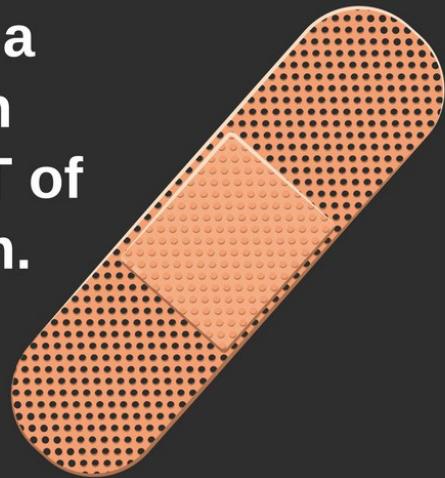
Local oyster farmers and harvesters will be compensated to provide their expertise and knowledge on various project aspects



Part 3: Addressing Root Causes

Focus on
resolving the
CAUSE of the
problem,
not putting a
band-aid on
the **EFFECT** of
the problem.

@LouisMassaro



Combined Target: 100,000 tons annually



Sandy Hollow Gully Restoration

This Spring: RFP for Sediment Reduction Prioritization Action Plan



PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM



SANTA ROSA
COUNTY
FLORIDA

It Takes A Village!



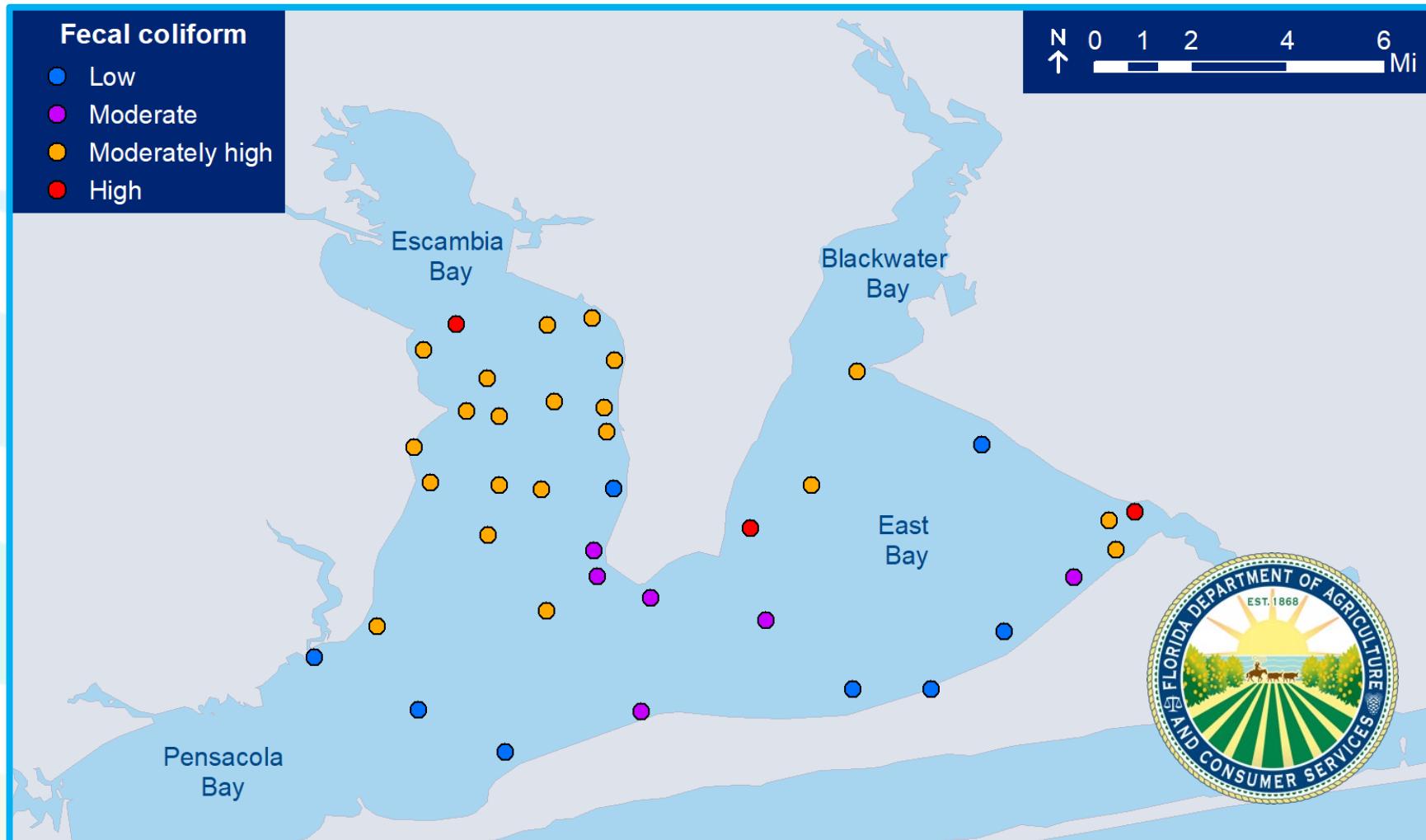
PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM

Questions?

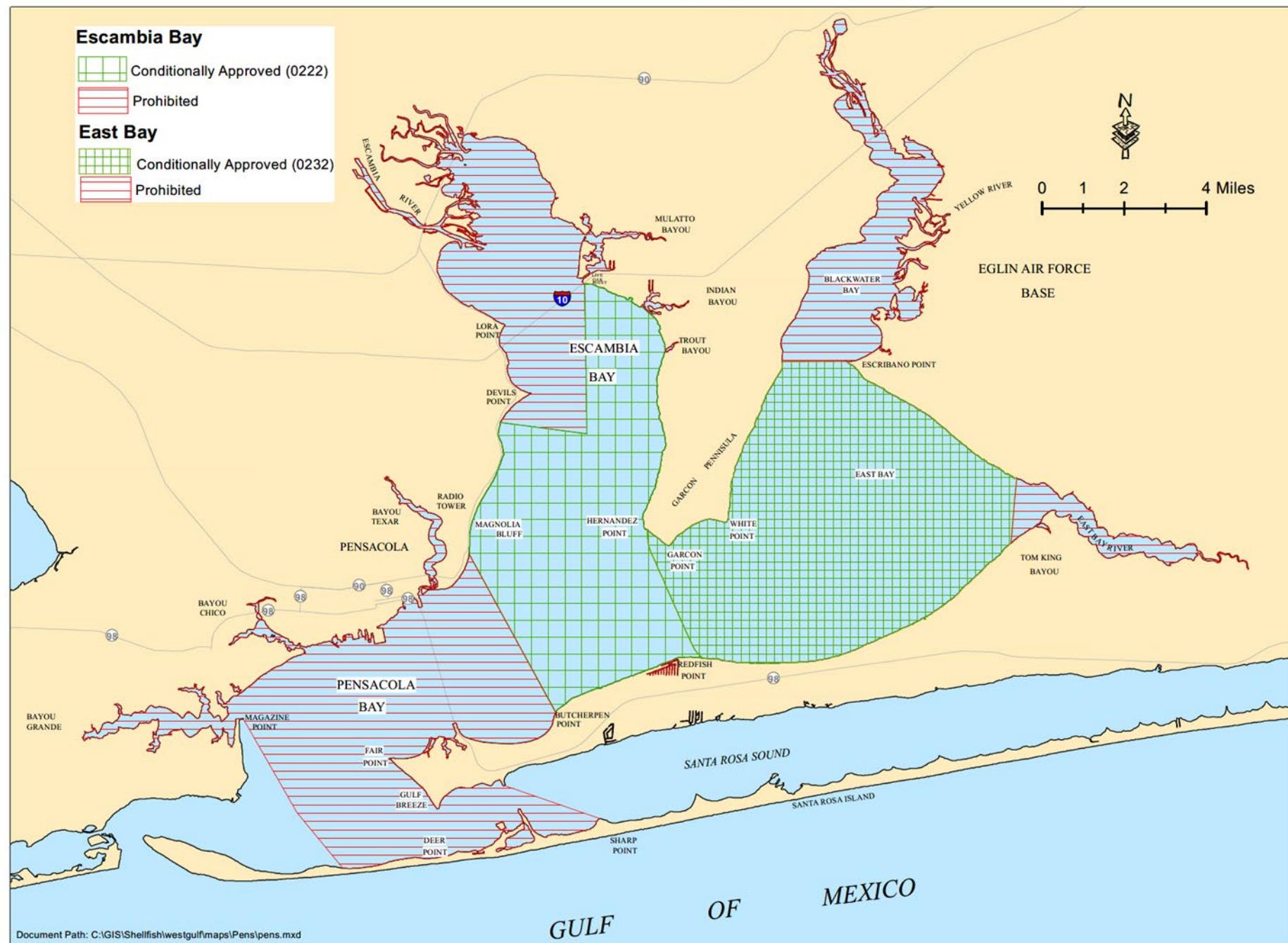


Fecal Coliform Monitoring

- Long-term trends determine which areas are approved or prohibited for harvest
- Prohibited area expanded in 2022 due to consistently high bacteria levels



PENSACOLA
& PERDIDO BAYS
ESTUARY PROGRAM



PROPOSED SHELLFISH HARVESTING AREA CLASSIFICATION MAP
Pensacola (#02) Shellfish Harvesting Area in Escambia and Santa Rosa Counties

2022

Escambia Bay

Conditionally Approved (0222)
Prohibited

East Bay

Conditionally Approved (0232)
Prohibited

0 1 2 4 Miles

