FWC Apalachicola Bay Oyster Restoration

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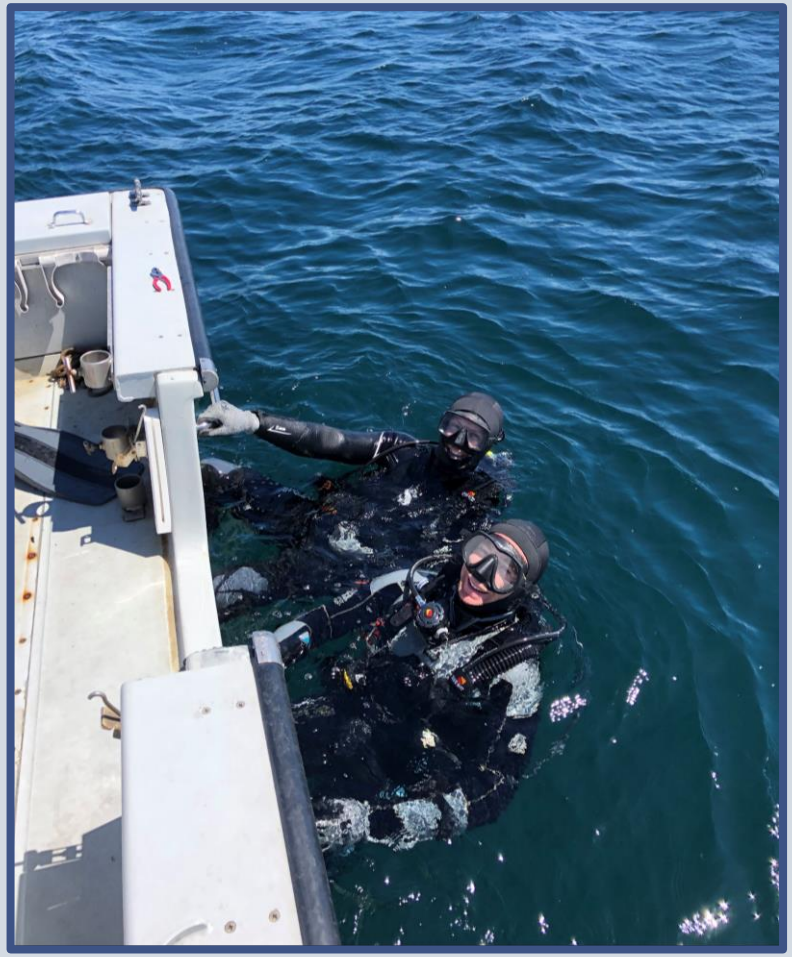
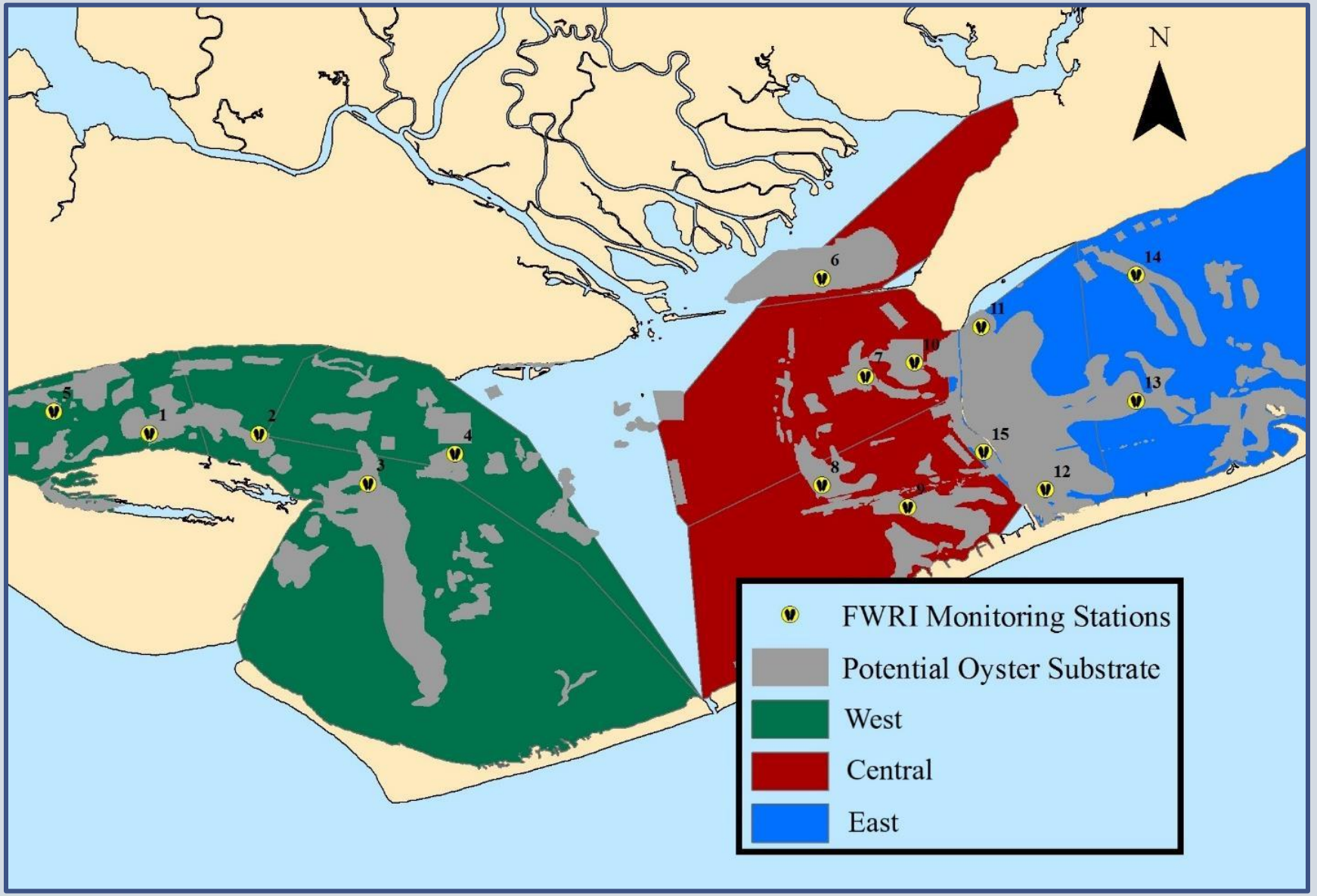
Project: Apalachicola Bay Oyster Restoration

- National Fish and Wildlife Foundation (NFWF)
- Gulf Environmental Benefit Fund
- Apalachicola Bay and Suwannee Sound
- Multiple partnerships
- Collaboration with management agencies, universities, and local, public stakeholders
- Objectives:
  1. Baseline data gathering and mapping
  2. Oyster reef restoration
  3. Refine oyster fishery management

FWC Oyster Monitoring



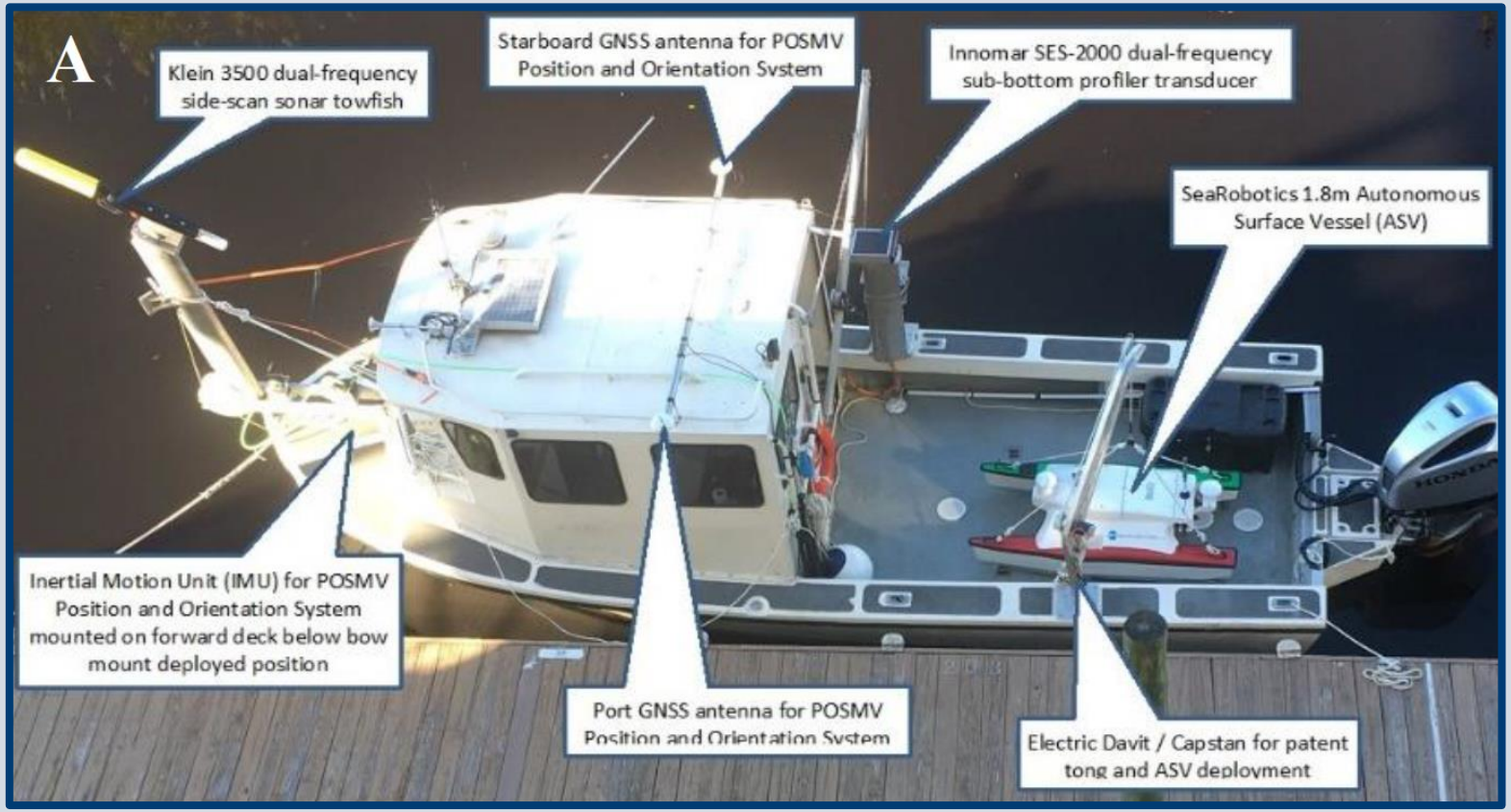

N
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
FWRI Monitoring Stations
Potential Oyster Substrate
West
Central
East

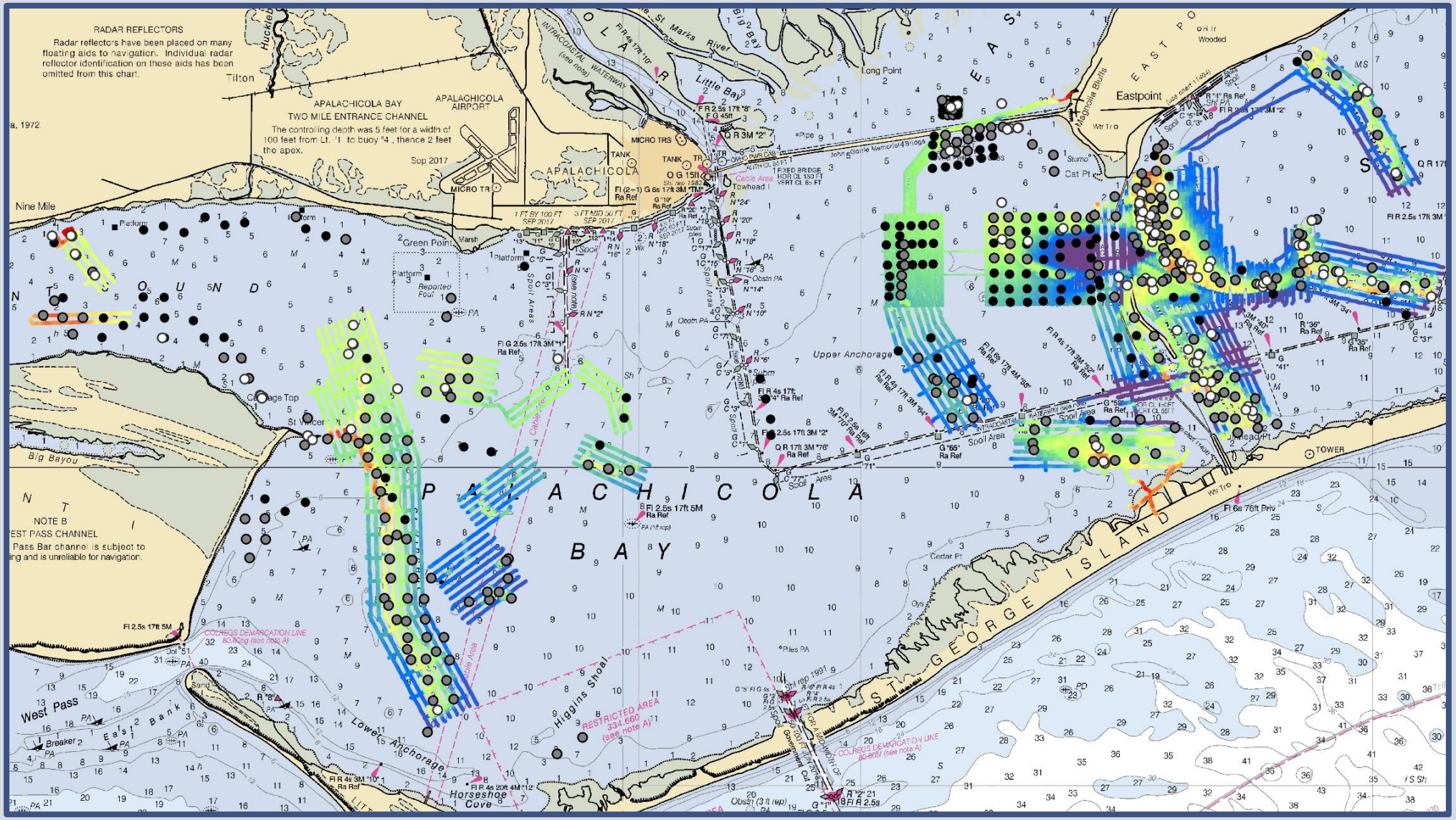
FWC Oyster Monitoring

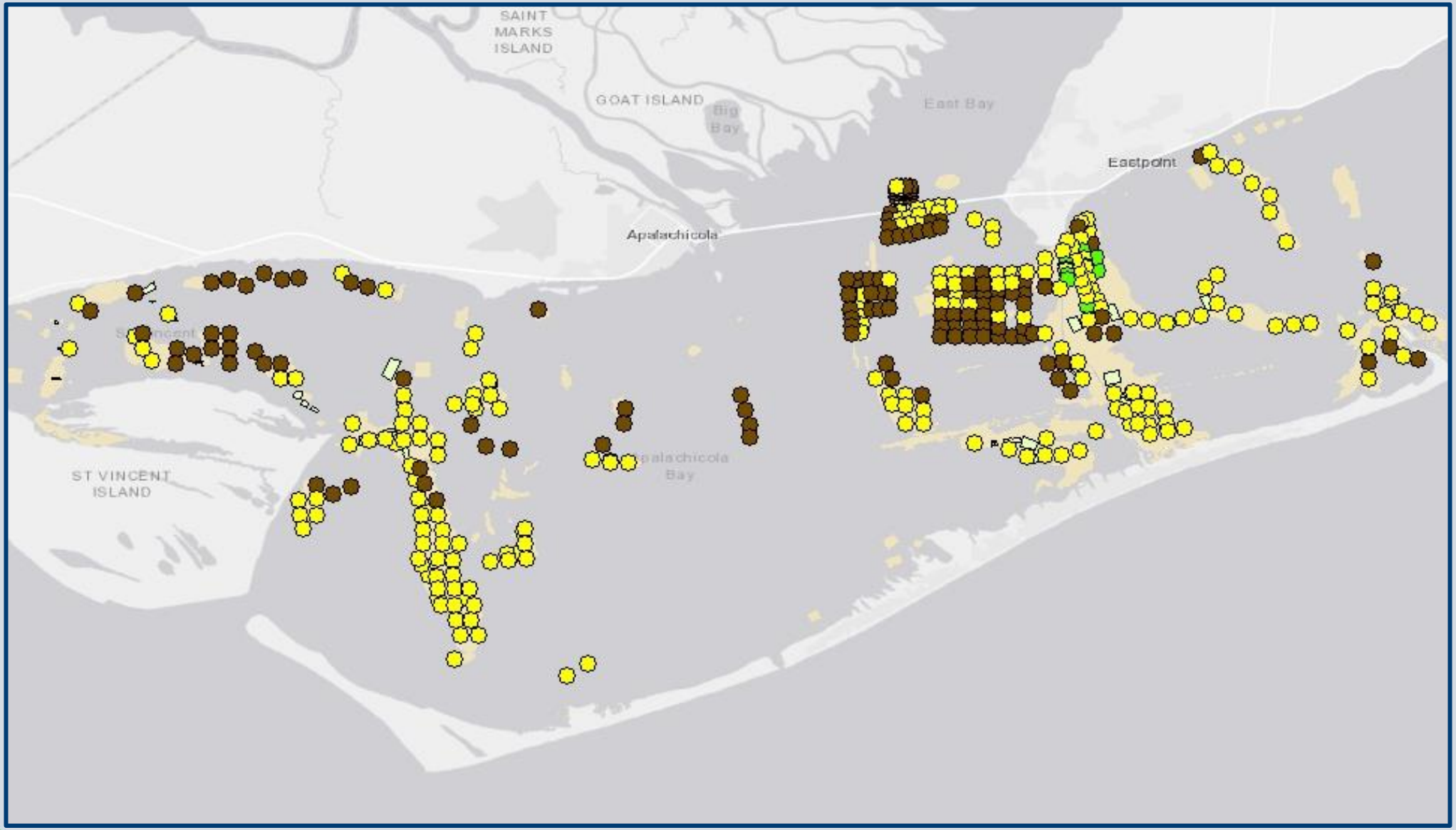
- SCUBA divers collect material from the bottom
- Collect data on:
  - Sample weight
  - Number and size of live oysters
  - Number of recently dead oysters
  - Number of oyster predators

FWC Mapping Efforts

- Mapping of hard substrate important to inform restoration efforts
- Apalachicola Bay
  - 3-D mapping
  - Bottom profiling
  - Ground truth tonging




RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.
APALACHICOLA BAY
TWO MILE ENTRANCE CHANNEL
The controlling depth was 5 feet for a width of 100 feet from Lt. "1" to buoy "4", thence 2 feet the apex.
Sep 2017
APALACHICOLA AIRPORT
Tilton
Nine Mile
Green Point
Cedar Top
St Vincent
Big Bayou
NOTE B
EST PASS CHANNEL
Pass Bar channel is subject to
ng and is unreliable for navigation.
West Pass
Eagle Bank
Breaker 2
Lower Anchorage
Horseshoe Cove
Higgins Shoal
RESTRICTED AREA 334.660 (see note A)
COLREGS DEMARCATION LINE 80.825g (see note A)
COLREGS DEMARCATION LINE 80.805f (see note A)
Government Cut
Upper Anchorage
Little Bay
Big Bay
St Marks River
INTRACOASTAL WATERWAY (see note)
Long Point
Eastpoint
Magnolia Bluffs
Cat Pt
Jimhead Pt
TOWER
Cedar Pt
Spoil Area
Cable Area
Platform
Reported Foul
MICRO TR
TANK
Fl 2.5s 17ft 5M
Fl 6s 76ft Priv
APALACHICOLA BAY
ST GEORGE ISLAND

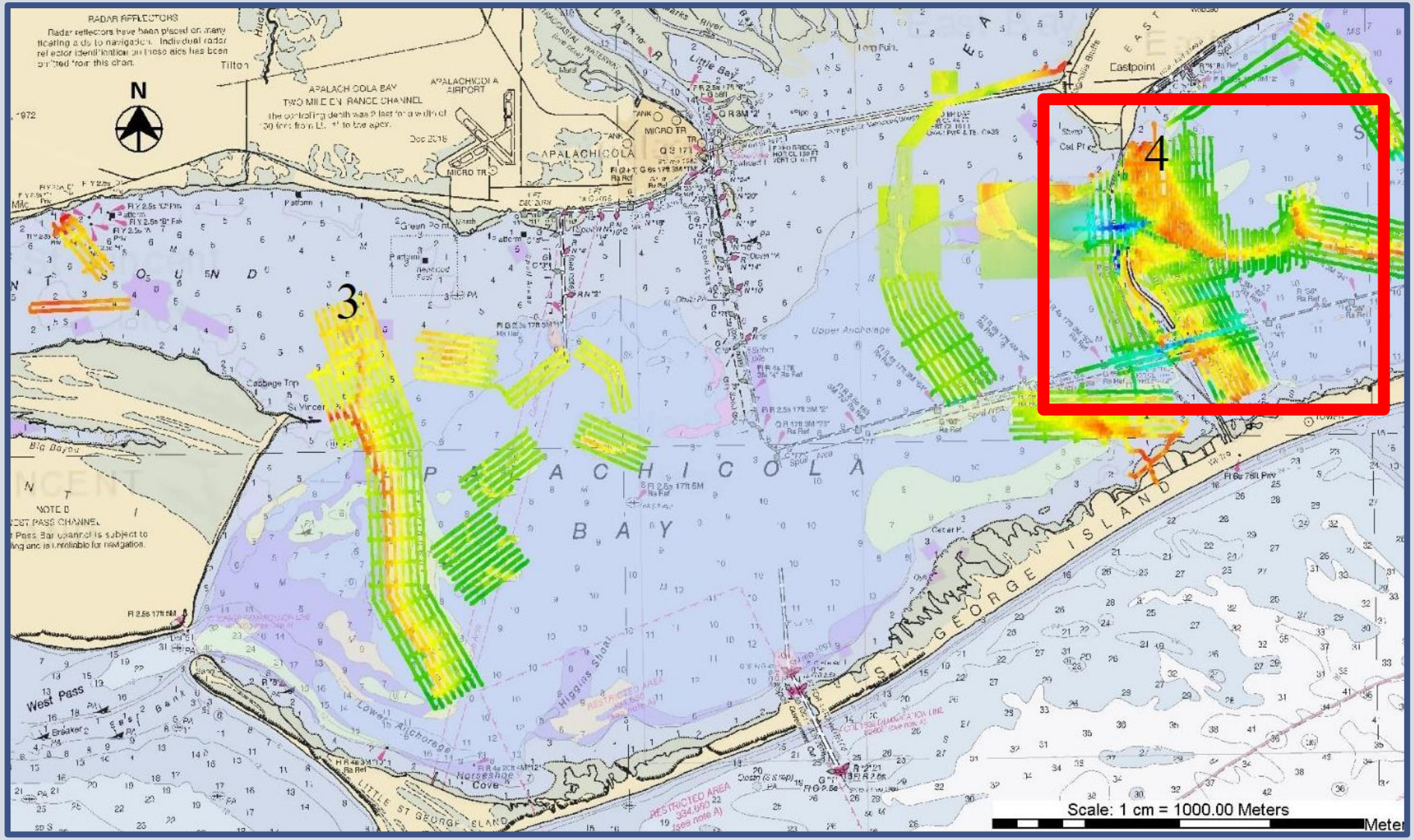

SAINT
MARKS
ISLAND
GOAT ISLAND
Big
Bay
East Bay
Eastpoint
Apalachicola
ST VINCENT
ISLAND
Apalachicola
Bay

Current Oyster Reef Conditions in Apalachicola Bay

- Recent mapping shows approximately 2,000 acres of potential oyster habitat
- Most of this area is degraded and does not support oyster spat settlement
- The east and central east sides of the Bay are the main areas supporting oysters and likely represents the core of the oyster population in the Bay
- Mapping shows areas where restoration would be most beneficial
- Additional $10 million allocated from Governor DeSantis' Framework for Freedom Budget
  - Exclusively for Apalachicola Bay oyster reef restoration

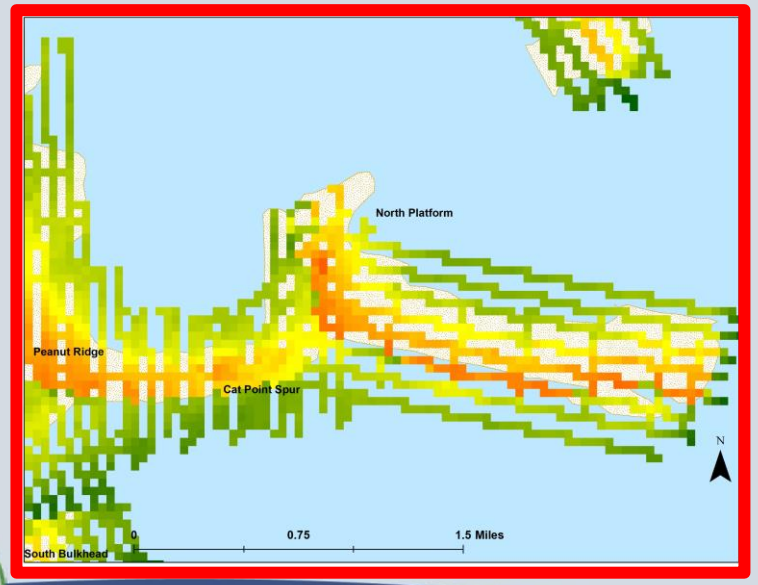
Apalachicola Bay Oyster Restoration – Pilot Study

- NFWF has requested FWC conduct a restoration pilot study prior to extensive restoration
  - Past restoration operations in the Bay did not perform as well as expected
- Large number of unknowns still present
- Perform a large-scale pilot study
  - FSU will conduct complementary studies
- FWRI will conduct sampling and monitoring oversight
- Utilizing these studies, FWC will have more data to construct and perform larger restoration activity

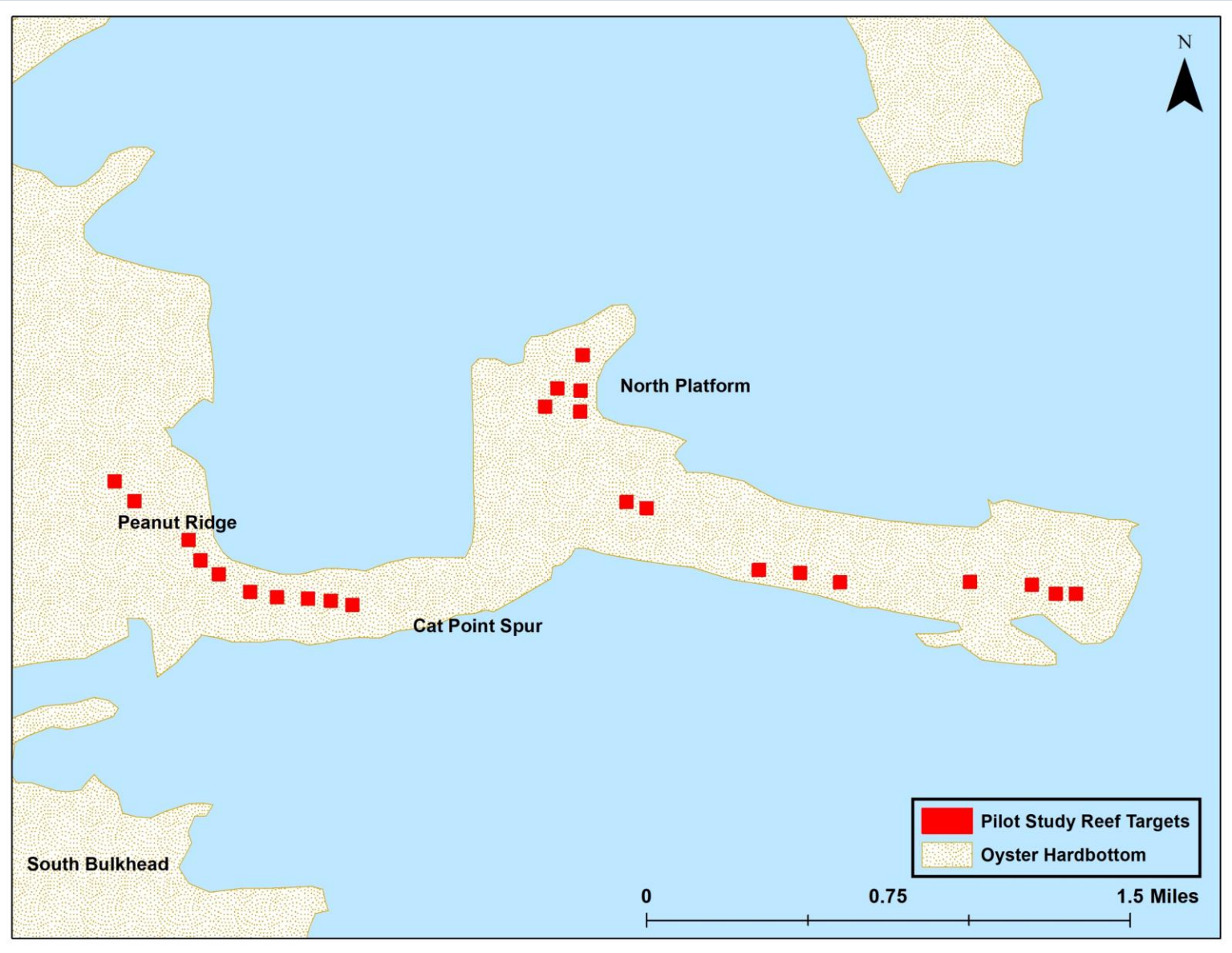

3
4
APALACHICOLA
BAY
ST. GEORGE ISLAND
Eastpoint
Tilton
West Pass
Scale: 1 cm = 1000.00 Meters


North Platform
Peanut Ridge
Cat Point Spur
N
0
0.75
1.5 Miles
South Bulkhead


North Platform
Peanut Ridge
Cat Point Spur
N
0
0.75
1.5 Miles
South Bulkhead


North Platform
Peanut Ridge
Cat Point Spur
N
0
0.75
1.5 Miles
South Bulkhead

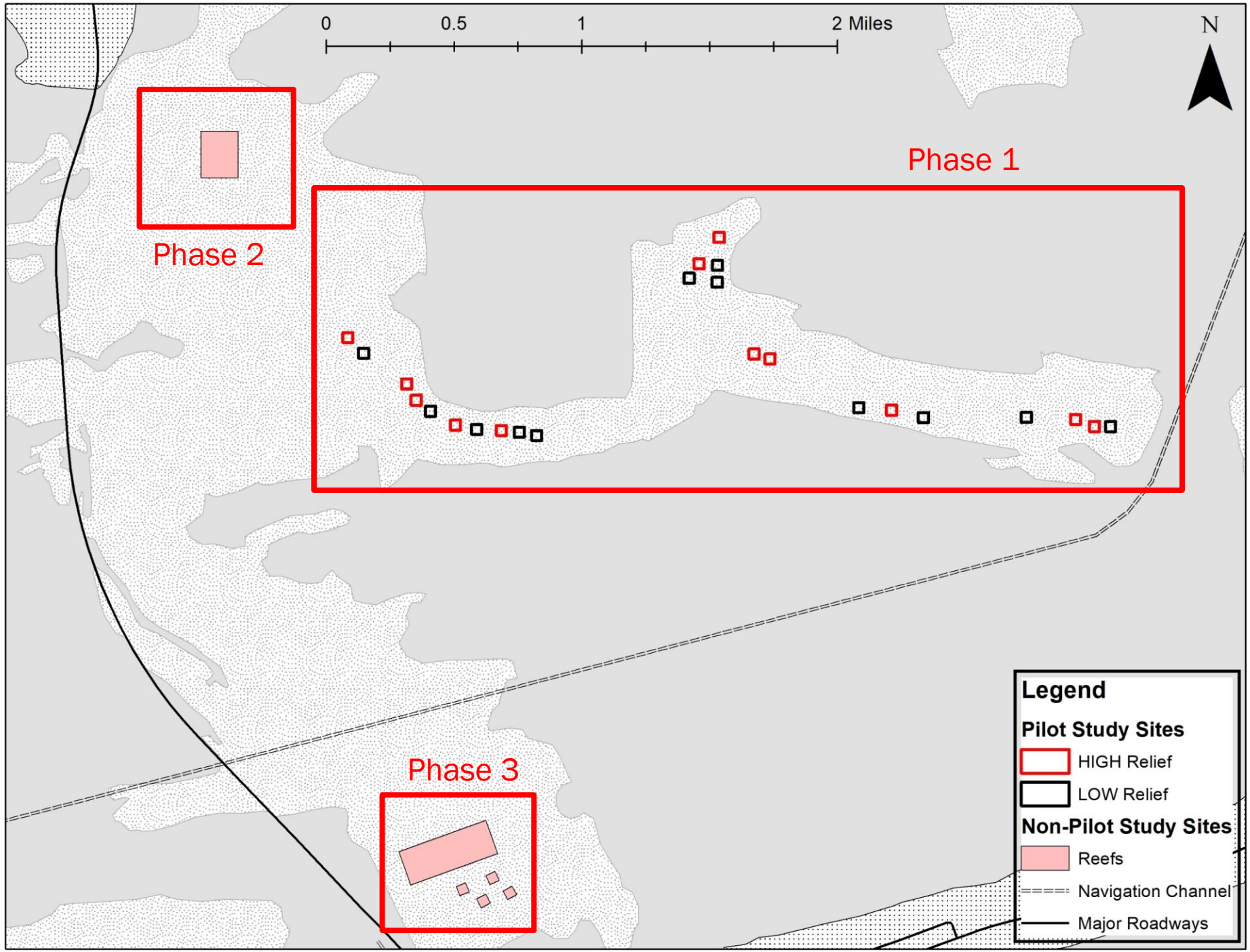

North Platform
Peanut Ridge
Cat Point Spur
N
0
0.75
1.5 Miles
South Bulkhead


N
North Platform
Peanut Ridge
Cat Point Spur
South Bulkhead
Pilot Study Reef Targets
Oyster Hardbottom
0
0.75
1.5 Miles

Apalachicola Bay Oyster Restoration – Pilot Study

- Pilot study will test multiple reef heights: 1 ft (low) and 2 ft (high)
- Material will be *Kentucky Blue* limestone
  - Not using large rock, unable to be tonged

- Each restored reef will be 1 acre in size
- Site observer hired to oversee restoration efforts
- FWC will exhaust the $10 million state allocation
- FSU ABSI's complimentary studies
  - Increases scientific scope of work done in Apalachicola Bay
  - Provides more data to assist in future, larger restoration activities


0
0.5
1
2 Miles
N
Phase 1
Phase 2
Phase 3
Legend
Pilot Study Sites
HIGH Relief
LOW Relief
Non-Pilot Study Sites
Reefs
Navigation Channel
Major Roadways

Apalachicola Bay Oyster Restoration – Pilot Study

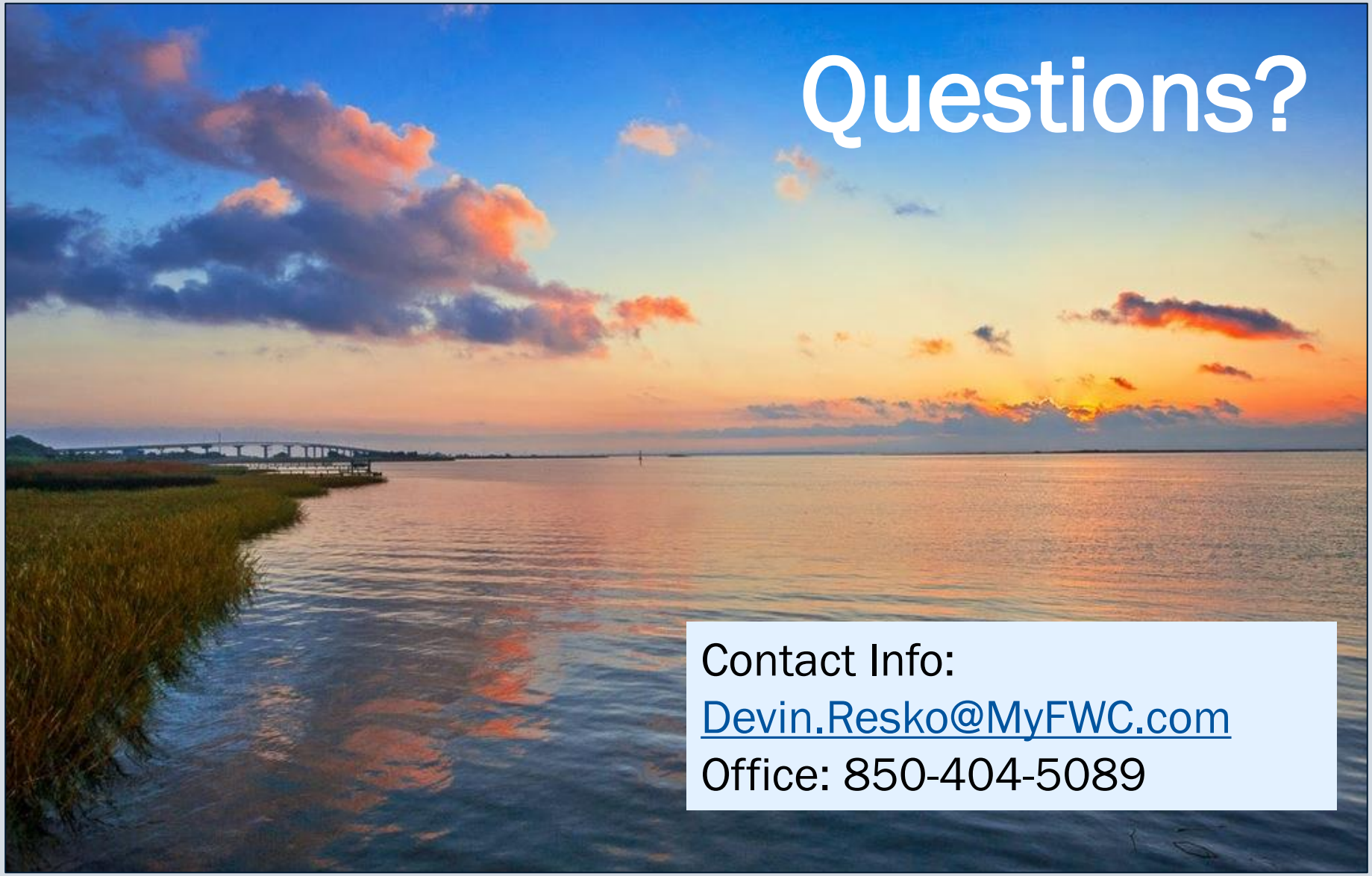
- Incidents of deployed rock exposed at lower tides at Pilot Study reefs
- Corrective action taken immediately
- Multiple mapping techniques
  - Phase 1 – side-scan and down-scan from transom-mounted transducer
  - Phase 2 – more robust side-scan from gunnel-mounted transducer, coupled with post-processing
- Contractor has increased effort to smooth out any high points discovered from mapping
- All restored sites will have sufficient navigational clearance

Apalachicola Bay Oyster Fishery Management

- FWC continues to gather public feedback to inform oyster fishery management
- Continue to monitor and analyze biological data
  - Most recent monitoring efforts have shown improvements where restoration has occurred.
- Decisions on future restoration and reopening of the Bay will be data informed as well as include public input.
- FWC will increase stakeholder engagement efforts in the coming months
  - Also leverage the process of this Partnership's efforts
- Actively researching additional funding opportunities

Conclusion

- $20 million for preliminary data gathering and analyses, restoration efforts, stakeholder-informed, regionally-specific oyster management plans
  - Additional $10 million allocated from the State for reef restoration
- Restoration pilot study underway
  - Inform FWC for large-scale restoration
- Continually looking for additional funding sources
- Increasing engagement with stakeholders
- Successful Apalachicola Bay oyster restoration will be possible through the culmination of work from management entities, university researchers, and local stakeholders


Questions?
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