

The Town of Nags Head

Estuarine Shoreline Management Plan

Nags Head Estuarine Management Plan

PROJECT SCHEDULE

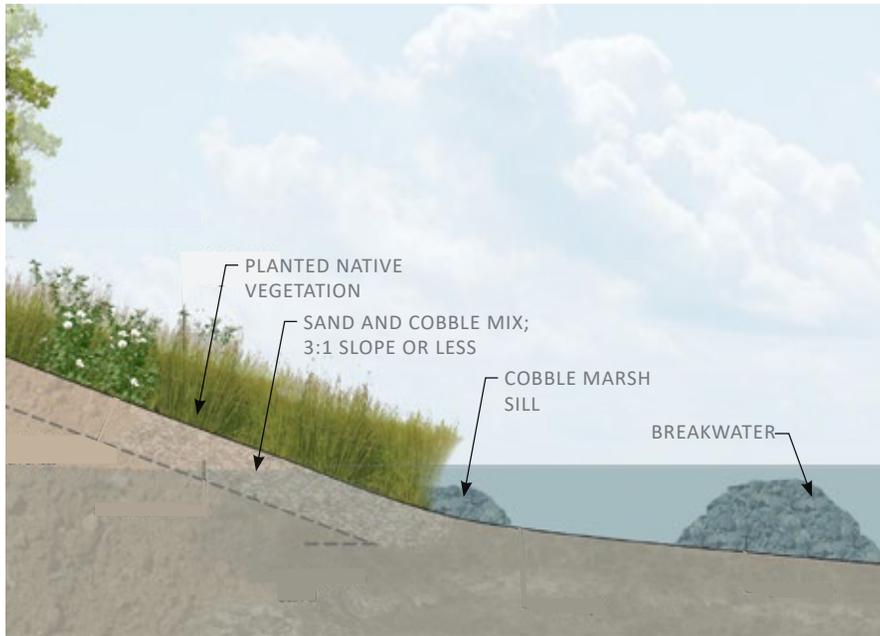
SCHEDULE	2021			2022												
	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
Task 1: Project Management																
Kick off	█															
Regular Check-ins	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Task 2: Outreach Plan & Advisory Council	█		○		○			○			○		○			
Task 3: Science + Data Review		█	█													
Task 4: Initial Site Tour & Stakeholder Meetings	█															
Goal Setting & Stakeholder meetings		█	█													
Task 5: Engineering Assessment of Energy & Erosion																
Shoreline Energy				█	█	█	█	█	█	█						
Erosion Rate	█	█	█	█	█	█	█	█	█	█						
Monitoring Requirements				█	█	█	█	█	█	█						
Task 6: Legal and Land Use Analysis			█	█	█	█	█	█								
Task 7: Draft Plan and Review							█	█	█	█	█	█	█	█	█	
Review Meetings											█	█	█			
Client Review Meeting											█	█				
Task 8: Final Plan, Review and Adoption															█	█
Final Public Presentation (Virtual)															█	█



PRELIMINARY PROPOSED
TYPOLOGIES

Nags Head Estuarine Management Plan

LIVING SHORELINE WITH BREAKWATER PROTECTION



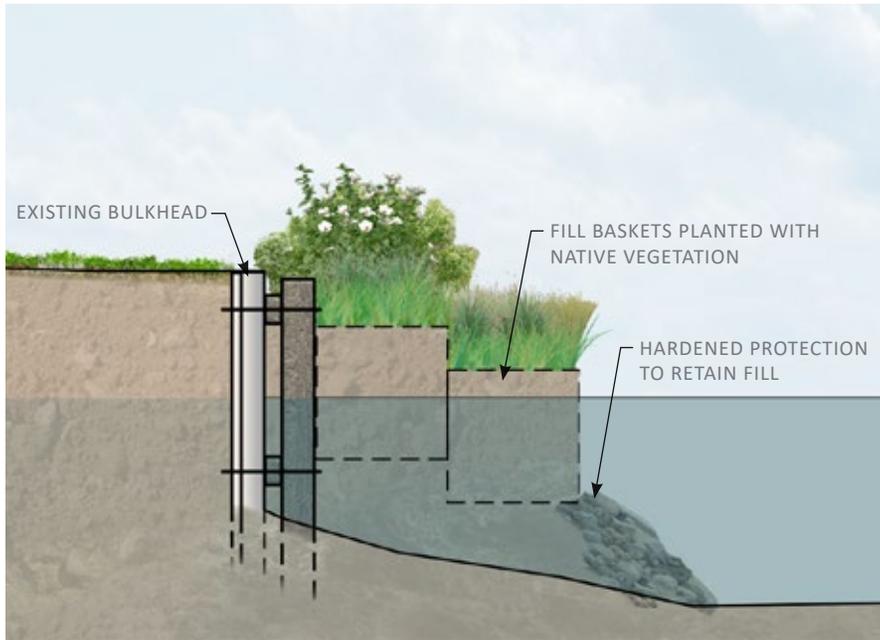
APPROPRIATE EXISTING TYPOLOGIES

- Exposed, Solid Bulkhead Structures with Low Marsh Zone
- Exposed, Failing, Vegetated Banks
- Exposed Salt & Brackish-Water Marshes
- Exposed, Low Banks & Beaches



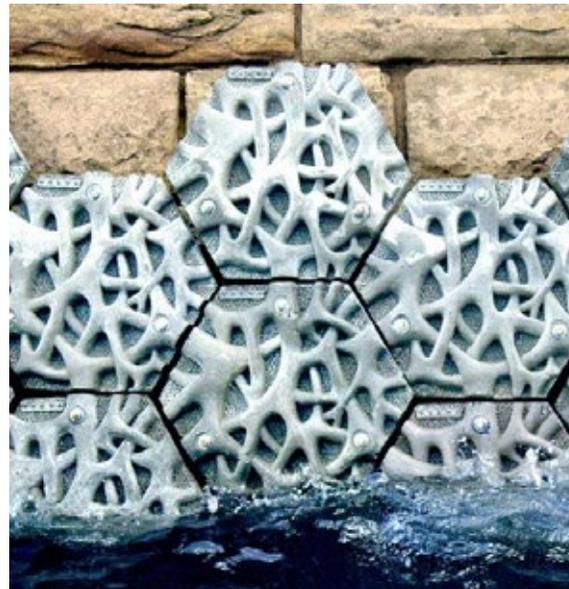
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GREEN BULKHEAD ENHANCEMENTS



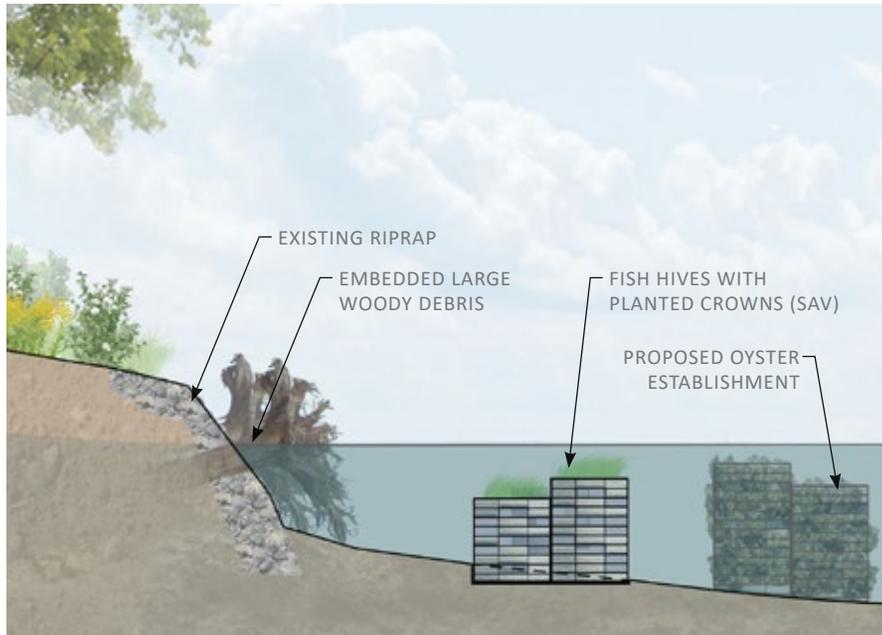
APPROPRIATE EXISTING TYPOLOGIES

- Sheltered, Solid Bulkhead Structures
- Sheltered Riprap
- Sheltered, Vegetative Low Banks
- Sheltered, Scrub-Shrub/Wetlands
- Exposed, Solid Bulkhead Structures
- Exposed Riprap



Nags Head Estuarine Management Plan

EMBEDDED LWD HABITAT & BREAKWATERS

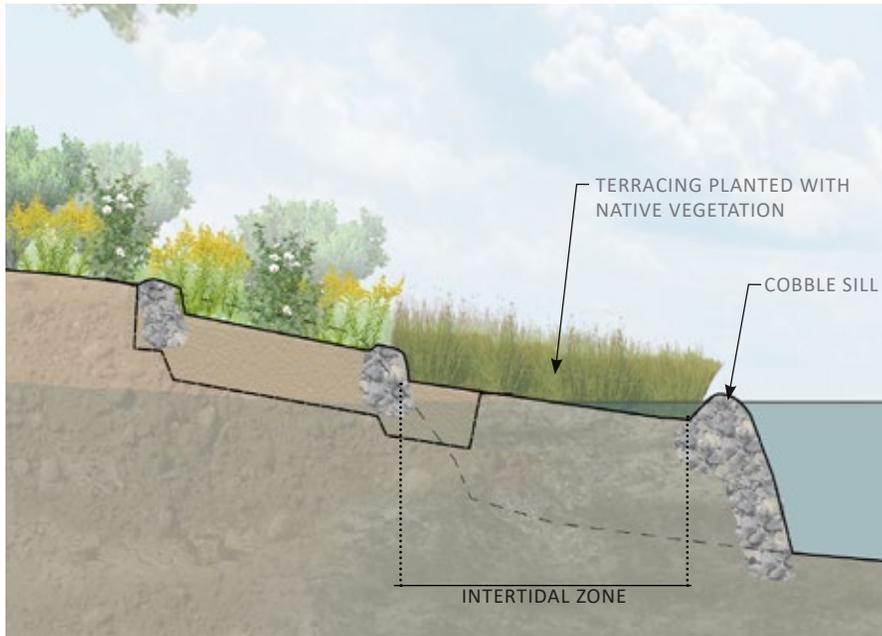


APPROPRIATE EXISTING TYPOLOGIES

- Exposed Riprap
- Exposed, Failing, Vegetated Banks
- Exposed Salt & Brackish-Water Marshes
- Exposed, Low Bank and Beaches

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RESILIENCY TERRACES



APPROPRIATE EXISTING TYPOLOGIES

- Exposed Riprap
- Exposed Solid Bulkhead Structures with Low Marsh Zone
- Exposed, Failing, Vegetated Banks
- Exposed Salt & Brackish-Water Marshes
- Exposed Low Bank and Beaches

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SHORELINE STABILIZATION PERMITTING CATEGORIES

GENERAL PERMITS (GP)

- Issued by DCM field staff and are streamlined major permits for routine projects (permit issuance averages 5-14 days)
 - Limited to 30' past normal high water or 5' past existing wetlands, whichever is greater
 - Cannot exceed 1' above normal high water
 - Slope cannot exceed 1.5' horizontal distance over a 1' vertical rise
 - Max length 500' with a 5' openings every 100', max base width of 12'
 - Must be marked for navigational purposes
 - Cannot construct over existing SAV or oyster beds
 - No associated backfill

MAJOR PERMITS

- Reviewed by 10 state & 4 federal agencies and are issued at the Division headquarters (permit issuance averages 75-90 days)

MINOR PERMITS/EXEMPTIONS

- Special circumstances such as maintenance/post- storm repairs, etc.

SITE SELECTION



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SITE SELECTION RATIONALE

OWNERSHIP & ACCESS

Range of Ownership
Types

Recreation & Visitor
Access

Partnership Potential

EROSION HISTORY

Areas of Concern -
Repetitive Loss Areas

Areas of Concern -
High Erosion Rates

Enhance Areas of
Deposition?

INFRASTRUCTURE PROTECTION

Areas of Concern -
Threatened Infrastructure

Proactive Protection of
Future Threats

SITE SIZE - PROJECT IMPACT

Larger Continuous Site,
Larger Project Benefits

Pilot Projects

PROJECT IMPLEMENTATION

Financing &
Investment Options

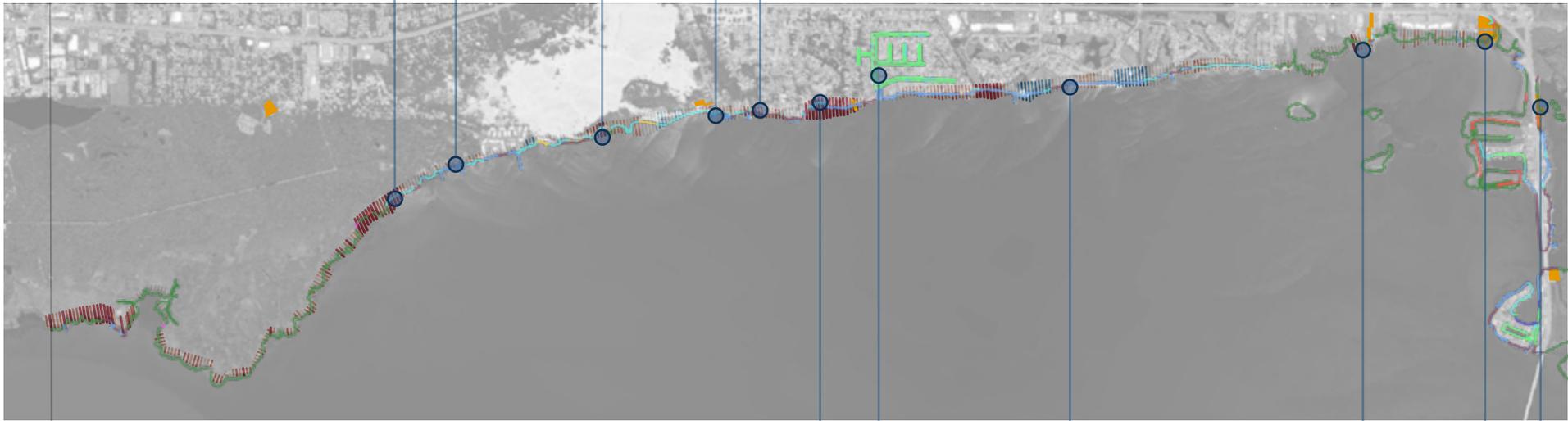
Timelines

Process

Permitting

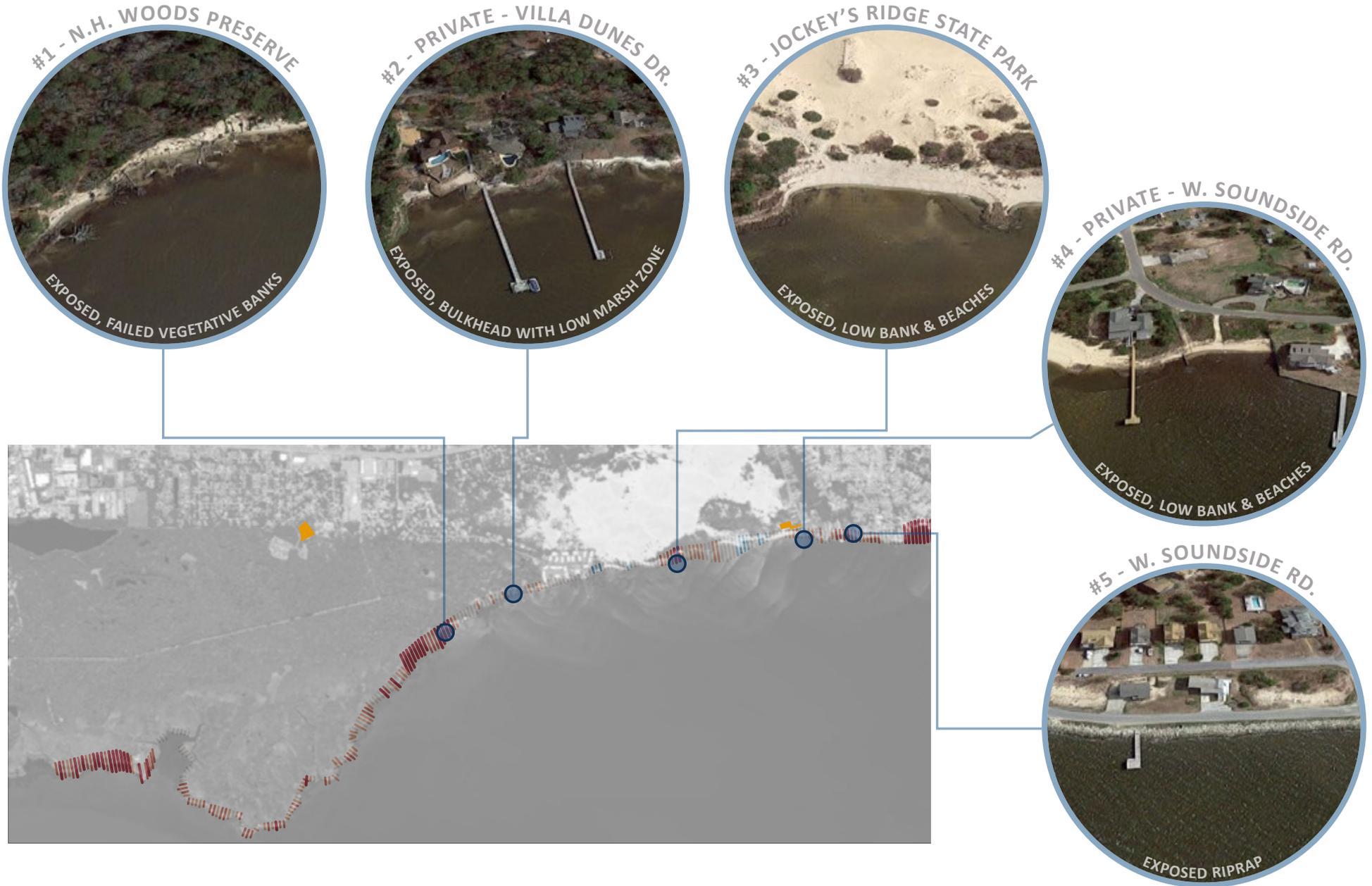
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TOP 11 POTENTIAL PROJECT LOCATIONS



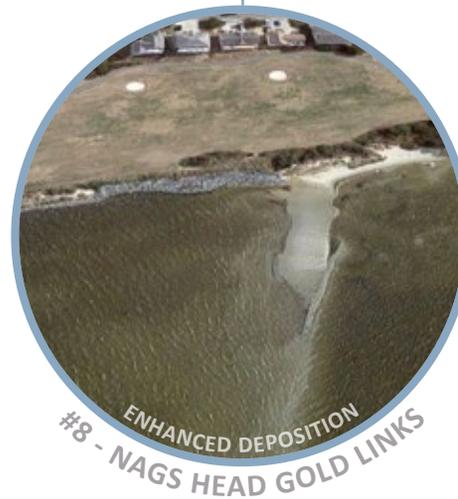
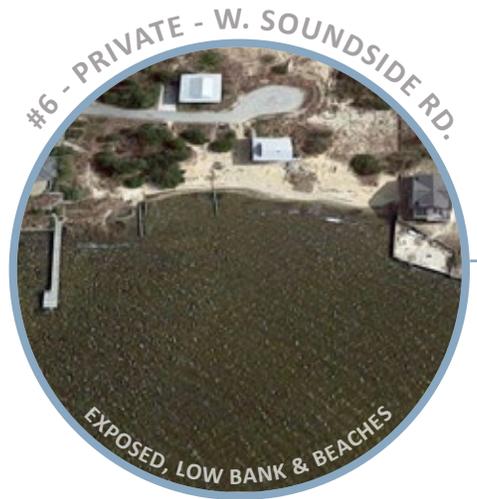
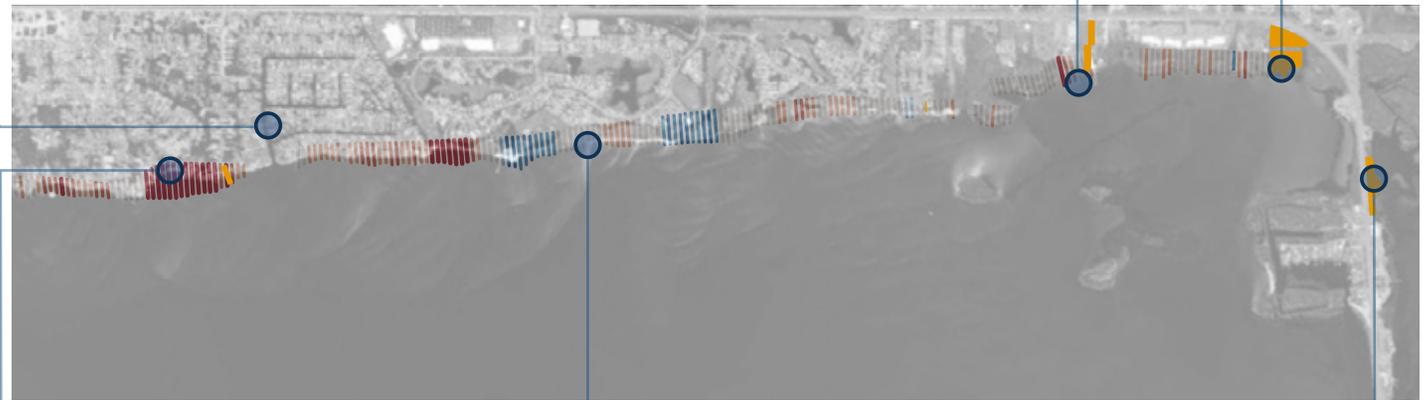
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NORTHERN PROJECT LOCATIONS



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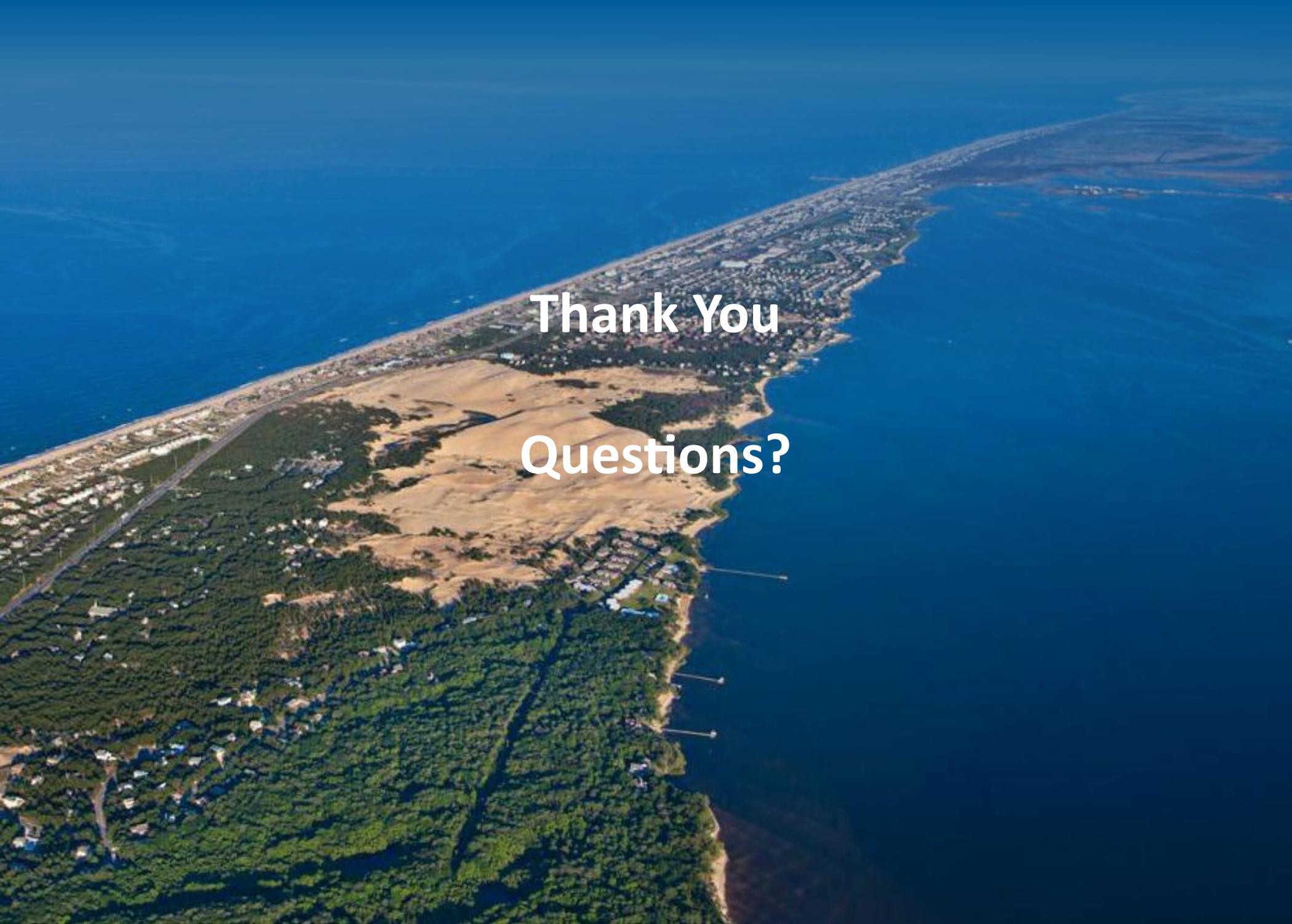
SOUTHERN PROJECT LOCATIONS



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NEXT STEPS

- 1) Finalize 3 Sites (with input from today's meetings and online survey)
- 2) Concept Designs
- 3) Reaching out to agencies to assess most feasible permitting pathway
- 4) Draft and Final Report
- 5) Final Report review and approval
 - a) Staff and Advisory Committee Review
 - b) BOC Review
 - c) BOC Approval of Final Report
- 6) Implementation funding



Thank You
Questions?