TOWN COUNCIL MINUTES

LEGISLATIVE HEARING **Friday, December 15, 2023 @ 2:00 p.m.**

The Kure Beach Town Council held a Legislative Hearing on Friday, December 15, 2023 at 2:00 p.m. The Town Attorney was present and there was a quorum of Council members present.

COUNCIL MEMBERS PRESENT
Mayor Allen Oliver
MPT David Heglar
Commissioner John Ellen
Commissioner David Heglar
Commissioner Connie Mearkle

COUNCIL MEMBERS ABSENT
Commissioner Dennis Panicali

STAFF PRESENT
Director of Administration – Mandy Sanders
Director of Development and Compliance – John Batson
Town Clerk – Beth Chase
Finance Officer – Arlen Copenhaver
Code Enforcement Officer – Bethany White

Mayor Oliver called the meeting to order at 2:00 p.m.

MOTION- Commissioner Ellen made a motion to excuse Commissioner Panicali from the meeting
SECOND- MPT Heglar
VOTE- Unanimous

Mayor Oliver stated the purpose of the hearing is to present the draft Beach Management Plan to the Town and public, receive any comments from the Town and public, and get approval from the Town to finalize the plan and submit to the Division of Coastal Management.

Notice of the Hearing was posted in the Pleasure Island News on November 30, 2023 and December 6, 2023. It was posted on the Town website on November 27, 2023 and the Town Bulletin Board.

Nicole VanderBeke, PE with Moffatt & Nichol gave a Presentation of Beach Management Plan that is hereby incorporated into the minutes.

Mayor Oliver opened the hearing at 2:23 p.m. for public comments.

James Craig resident at 121 North 5th Avenue stated he currently lives 400 yards back from the beach and has lived here for the past 10 years. He is currently retired but for 30 years worked for the federal agencies that did offshore leasing. He worked on several of these projects in other states. It seems to him the plan is focused on protection of the first-row structures and while

worthy there is a lot of other user groups that use this beach that has not been incorporated into the plan. He is going to speak on the other groups that is interested in this project. The user groups that he sees using the beach are the people who sit on the beach and wade in the water, the user group that stay in the motels and in the spring in fall are concerned about this the zone for the fishing, and the other user group is the surfers. Citizens are accustomed to these 3 zones and according to the plan are going to take and artificially build a new shore profile. It creates a bigger space to lay your towel out and sit but creates issues for the other two user groups that are not mentioned in the plan.

Mayor Bloszinsky closed the hearing at 2:31 p.m.

MOTION- MPT Heglar made a motion to approve the Beach Management Plan as presented but to add the public comment received
SECOND- Commissioner Ellen
VOTE- Unanimous

ADJOURNMENT

MOTION- MPT Heglar made a motion to adjourn the meeting at 5:04 p.m.
SECOND- Commissioner Ellen
VOTE- Unanimous

ATTEST: Beth Chase, Town Clerk

Allen Oliver, Mayor

NOTE: These are action minutes reflecting items considered and actions taken by Council. These minutes are not a transcript of the meeting. A recording of the meeting is available on the town's website under government>agendas&minutes

Town of Kure Beach
Beach Management Plan

December 15, 2023

moffatt & nichol

TOWN OF KURE BEACH · NORTH CAROLINA ·

Presentation Outline

- Introduction
- Summary of USACE CSRM Project
  - Nourishment History
  - Project Design Template & Nourishment Cycle
  - Borrow Area Information
  - Project Monitoring & Performance
- Future Nourishment Plans
- Financial Resources
- Public Involvement
- Next Steps
- Summary

Introduction

- The North Carolina Coastal Resources Commission (CRC) Recently Amended Title 15A of the North Carolina Administrative Code
  - Eliminated Use of a Development Line (Used by Kure Beach Since 2017)
  - Replaced and Streamlined the Previously Existing Static Line Exemption Rules Pertaining to Oceanfront Construction Setbacks Which Allowed Use of Existing Vegetation Line Rather Than The Static Vegetation Line As Determined By The North Carolina Division of Coastal Management (DCM)
  - Amended Code Went Into Effect August 1, 2022 Requiring Submittal of a Beach Management Plan In Order To Allow Use of Existing Vegetation Line Rather Than The Pre-Project Vegetation Line (Formerly Static Line)
- Beach Management Plan Requirements
  - Review of Beach Fill Projects
  - Review of Design and Monitoring
  - Review of Sediment Sources
  - Review of Financial Plan
  - Review of Public Comments
- Town of Kure Beach Development Line Expired August 1, 2022

Introduction

- Example Pre-Project Vegetation Line (1994)
- Approximately 100+ ft Landward of Existing Vegetation Line
- Setback Rules

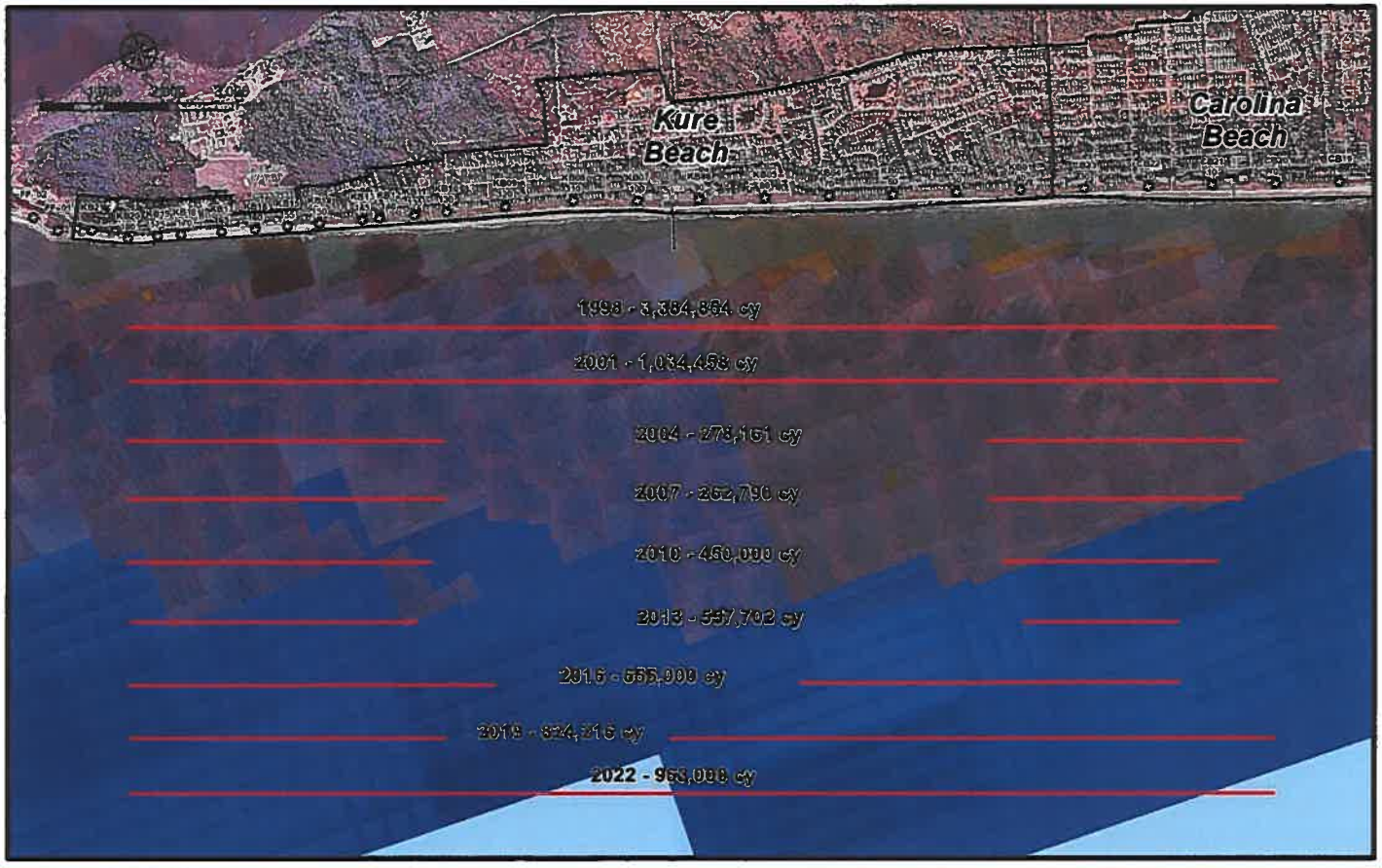
Structure Size	Setback (ft)	Setback (ft) Northern 2.45 Miles (Setback Factor = 2)	Setback (ft) Southern .45 miles (Setback Factor = 3-4)
less than 5,000 sqft	30 times the setback factor	60	90-120
greater than or equal to 5,000 sqft	60 times the setback factor	120	180-240
greater than or equal to 10,000 sqft	65 times the setback factor	130	195-260
greater than or equal to 20,000 sqft	70 times the setback factor	140	210-280
greater than or equal to 40,000 sqft	75 times the setback factor	150	225-300
greater than or equal to 60,000 sqft	80 times the setback factor	160	240-320
greater than or equal to 80,000 sqft	85 times the setback factor	170	255-340
greater than or equal to 100,000 sqft	90 times the setback factor	180	270-360

Summary of USACE CSRM Project

- First Project Authorized in 1962 (w/ Carolina Beach)
- First Project Constructed In 1997 – Projects Approximately Every 3 Years
- Authorization Extends Through 2047

Date	Borrow Area	Placement Area	Pay Yardage (cy)
1997-1998	Offshore Area A - South	0 to 180	3,384,854
2001	Wilmington Harbor	0 to 180	1,034,458
2004	Offshore Area A - South	5 to 45 & 130 to 180	278,161
2006 - 2007	Offshore Area A - South	5 to 45 & 130 to 180	262,790
2010	Offshore Area A - South	9 to 43 & 132 to 180	450,000
2013 - 2014	Offshore Area B - East & West	15 to 40 & 135 to 180	557,702
2016	Offshore Area B - East & West	15 to 75 & 125 to 180	655,000
2019	Offshore Area B - East & West	0 to 100 & 130 to 180	824,216
2022	Offshore Area B - East & West	0 to 180	963,000

Summary of USACE CSRM Project

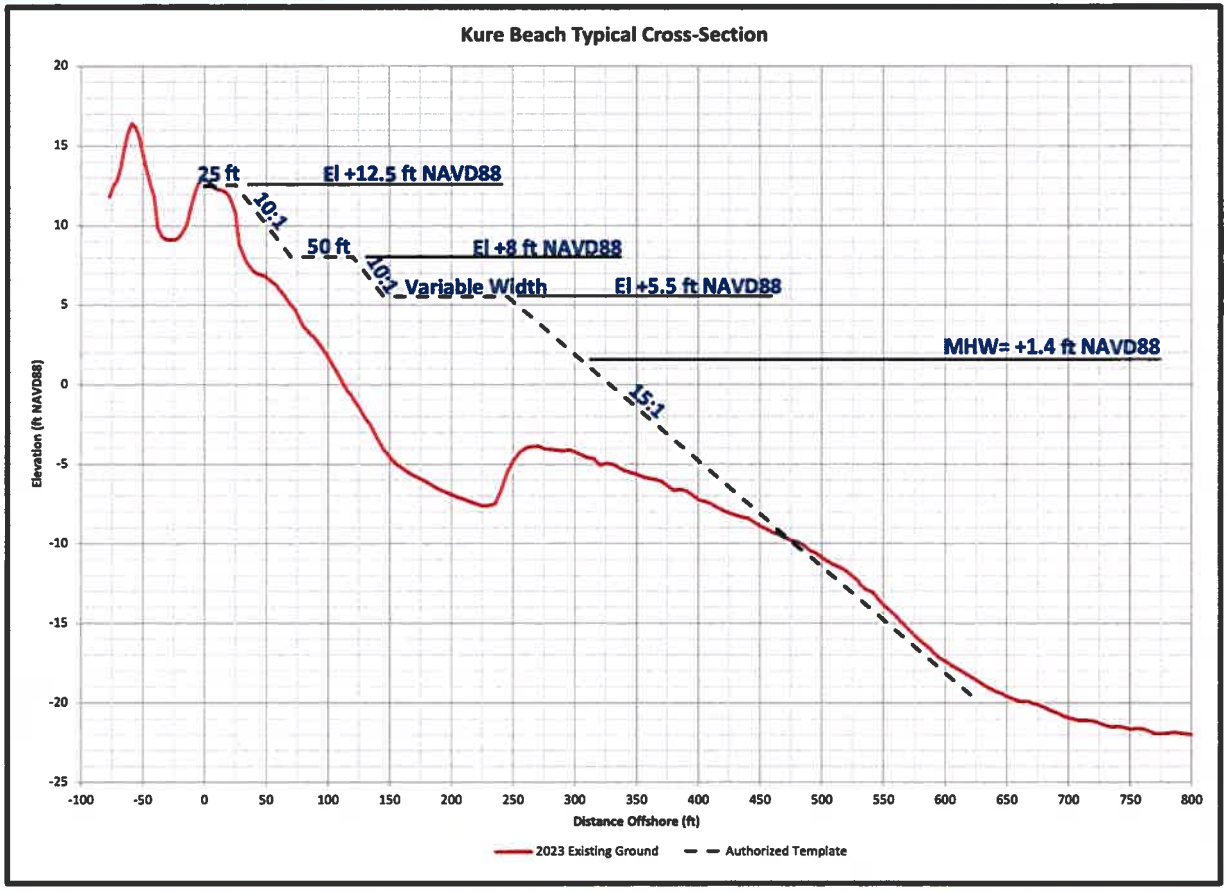


Project Design Template

- Approximately 18,000 Linear Feet, Including a 1,500 Foot Transition at the South End
- Southern Project Limit Ends Approximately 1,000 ft North of Kure Beach Town Boundary
- Northern Project Limit Extends 3,500 Feet Into Southern Carolina Beach

Project Design Template

- 25 Ft Wide Dune At Elevation +12.5 ft NAVD88
- 50 Ft Wide Storm Berm At Elevation +8.0 ft NAVD88
- Varied Width (Approx. 100 Ft) Construction Berm at Elevation +5.5 ft NAVD88
- 15:1 Slope To Existing Ground



Project Nourishment Cycle

- Local Cooperation Agreement Between the USACE and Town of Kure Beach
  - "*periodic beach renourishment is estimated to be undertaken every three years unless, based on information gathered during the beach monitoring program, the Government and the Town determine that such beach nourishment is engineeringly necessary and economically justified on a different schedule*".
- Since Initial Construction In 1997, Projects Have Occurred Every 3 Years
- It Is Expected The Renourishment Interval Will Remain At 3 Years Throughout The Remaining Life Of The Authorization (2047)
  - Eight Additional Projects Anticipated in 2025, 2028, 2031, 2034, 2037, 2040, 2043, 2046

Borrow Area Information

› Native Beach Characterization

GRAIN SIZE DISTRIBUTION
2013 - 2014 (CPE)

Characteristic	1993/2014 Native	NCAC Requirements	Required Borrow Site Parameters
Fines (<#230)	1.02%	1.02% + 5%	≤ 6.02%
Sand (>#230 & <#10)	96.21%	-	-
Granular (>#10 & <#4)	2.13%	2.13% + 10%	≤ 12.13%
Gravel (<#4)	0.64%	0.64% + 5%	≤ 5.64%
Calcium Carbonate	9.00%	9% + 15%	≤ 24%

CLAST SURVEY
2021 (CPE)

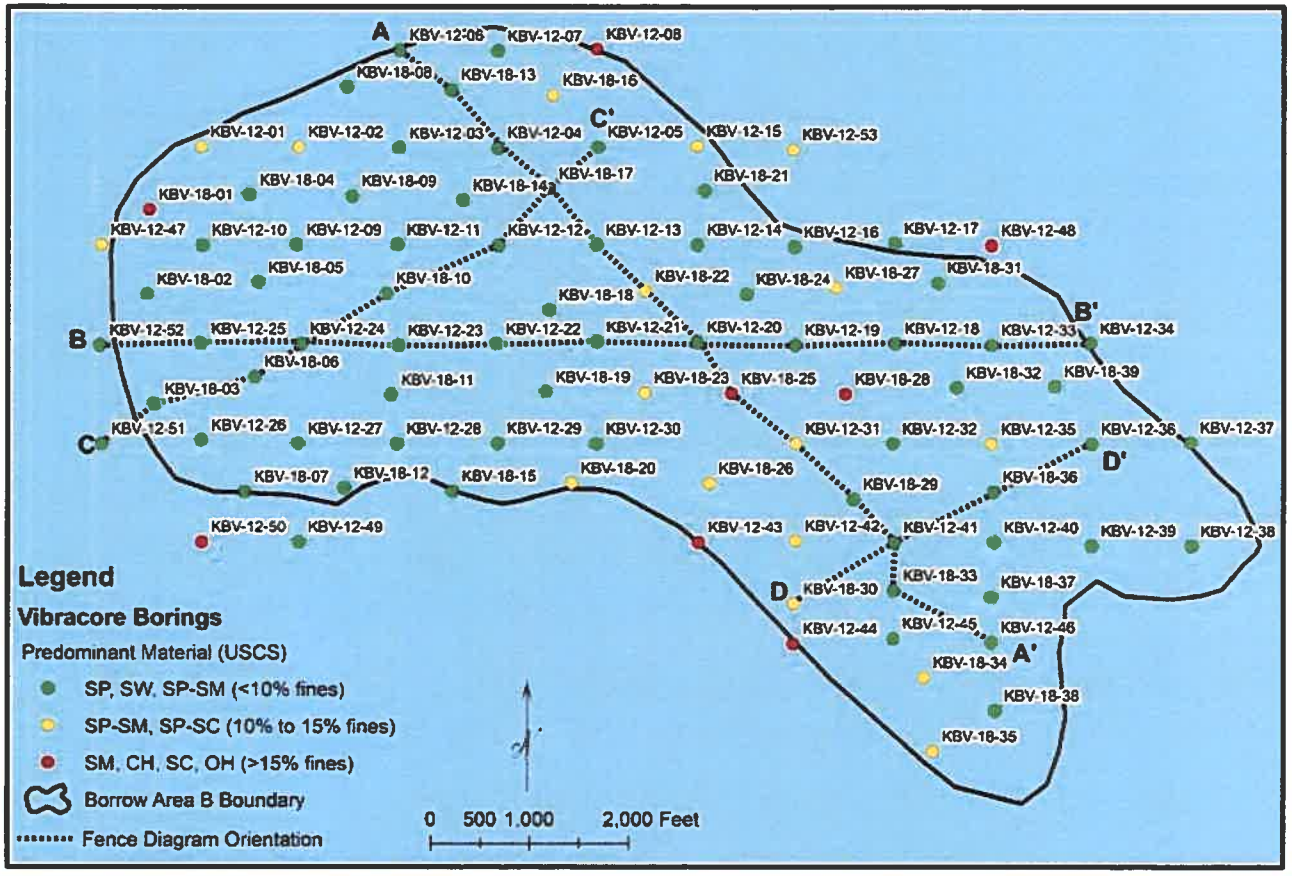
Stations	Arithmetic Mean		Total	
	Sediment ≥ 1 Inch	Shell ≥ 3 Inch	Sediment ≥ 1 Inch	Shell ≥ 3 Inch
All Transects (CB-22, KB-01, KB-05, KB-09, KB-15, KB-21)	10.5	29.3	63.0	176.0
CSDR Project Area (CB-22, KB-01, KB-05, KB-09, KB-15)	3.6	4.0	18.0	20.0
Area South of CSDR Project (KB-21)	45.0	156.0	45.0	156.0

Borrow Area Information

- Historical Use of Offshore Borrow Areas
- Borrow Area A
  - 1997 - 2010
- Borrow Area B
  - 2013 - 2022

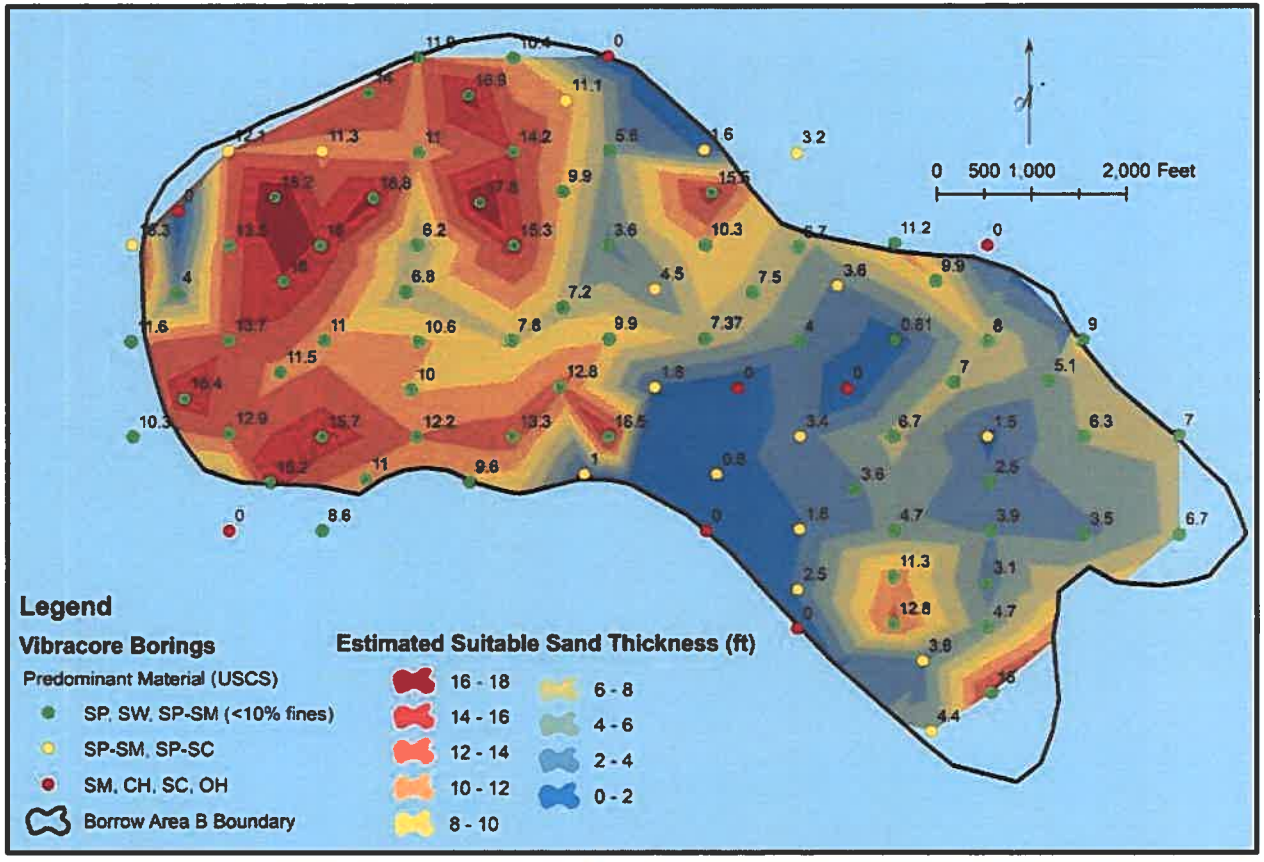
Borrow Area Information

- Borrow Area B
  - 2019 USACE Study Analyzed Historical Vibracores (2012, 2018) for Compatibility Analysis



Borrow Area Information

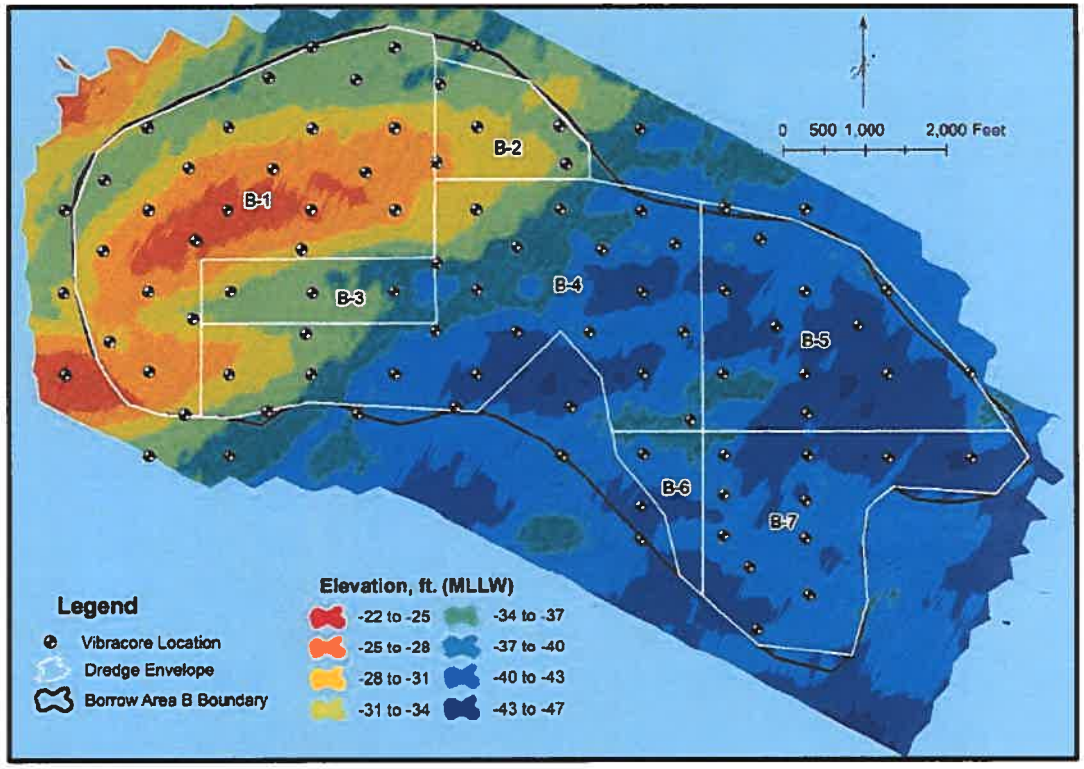
- Borrow Area B
  - Determined Suitable Material Existed Throughout the Borrow Area
  - Largest Recoverable Volumes Located in the Northwest Half of the Borrow Area
  - Approximately 9.7 Mcy of Material Remaining in Borrow Area B



Borrow Area Information

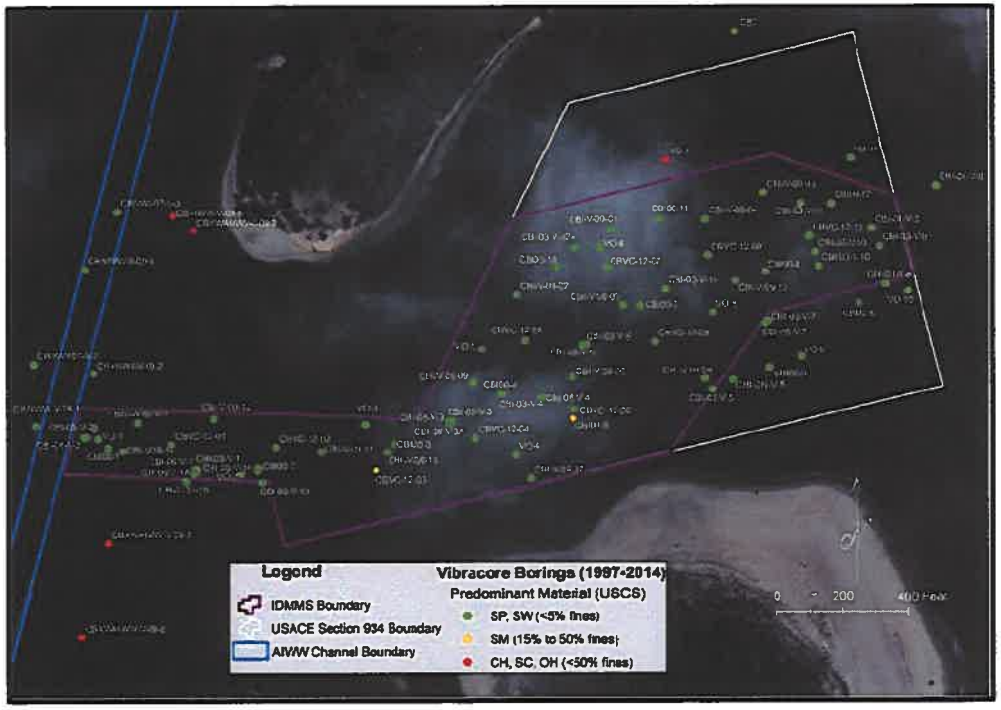
- Borrow Area B
  - New Cut Depths Established for 2019 Event and Beyond to Ensure Avoidance of Non-Suitable Material Located Below the Compatible Material

Zone Name	Maximum Dredging Depth (Elevation, ft. NAVD88)	Maximum Dredging Depth (Elevation, ft. MLLW)
B-1	-44	-41
B-2	-38	-35
B-3	-46	-43
B-4	-48	-45
B-5	-51	-48
B-6	-45	-42
B-7	-47	-44



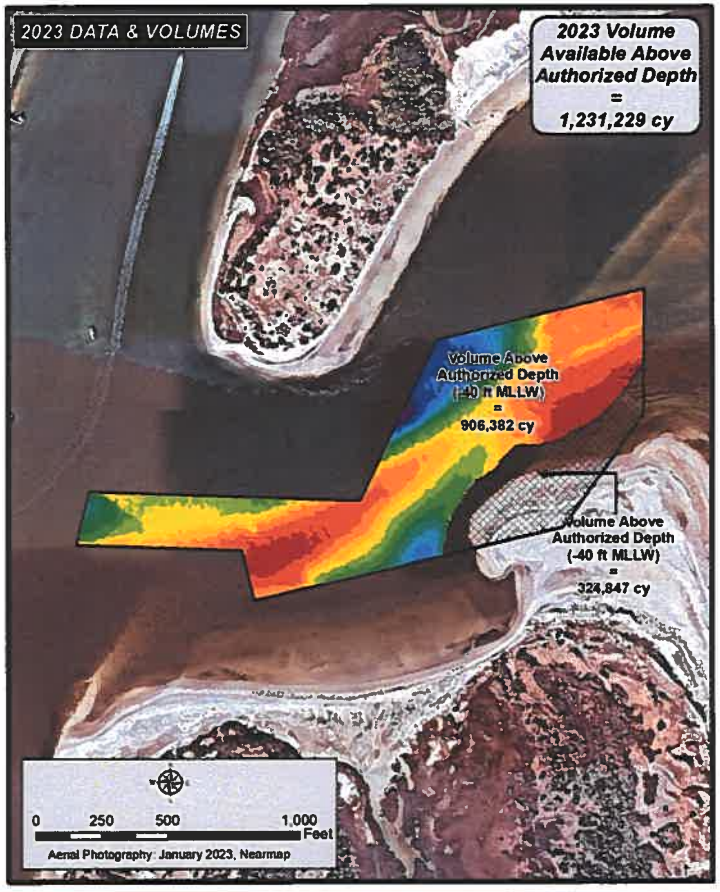
Borrow Area Information

- Carolina Beach Inlet
  - Carolina Beach Inlet Contains a Naturally Replenishing Inshore Dredge Material Management Site (IDMMS) From Which Material Has Been Dredged and Placed Along the Extents of the Carolina Beach CSRM Project Since 1981
  - 2019 USACE Compatibility Study Investigated Vibracores from 1997 – 2014
    - Less Than 10% Fines



Borrow Area Information

- Carolina Beach Inlet
  - Recharge Rate ≈ 300,000 cy/yr
  - Volume as of May 2023 ≈ 1,231,229 cy



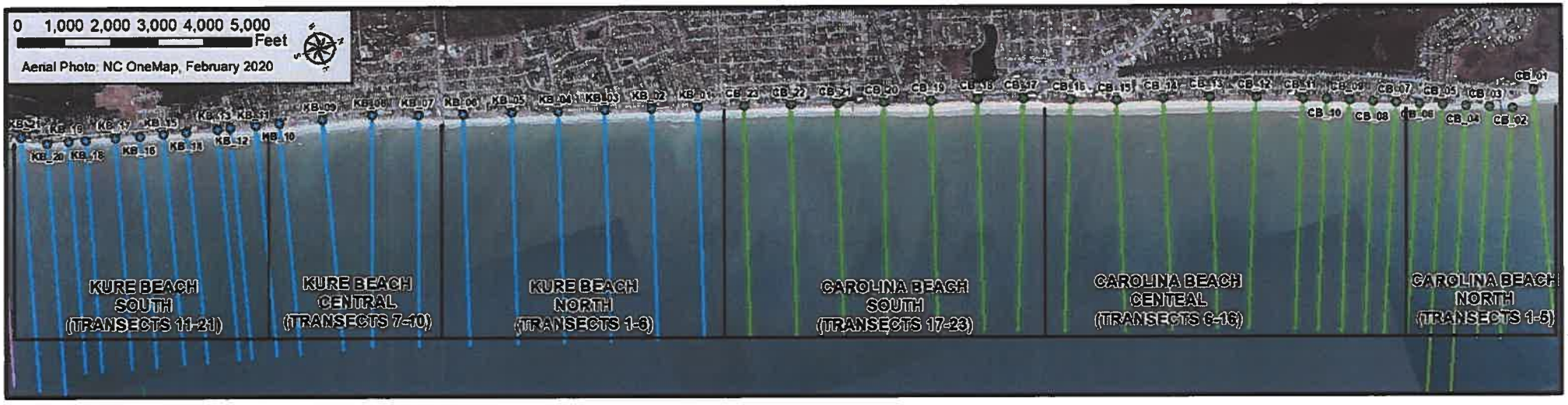
Project Monitoring & Performance

- USACE Monitoring Program
  - Surveys Conducted At Least Annually and Sometimes Twice A Year Depending On Storm Activity

- USACE Monitoring Results
  - Over the 26 Year History Of The Project, The Dune At +12.5 FT NAVD88 Has Remained Intact With Some Minor Escarpments at the Southern End of Kure Beach
  - Renourishment Efforts Typically Focus On Restoration of Storm Berm and Construction Berm
  - Volume Losses From Southern Portion Of Project Area Are The Most Significant
    - Often Focus Placement From Sta 130 to Sta 180 (South) and Sta 5 to Sta 40 (North)
    - Nourish the Entire Authorized Template Only When Needed

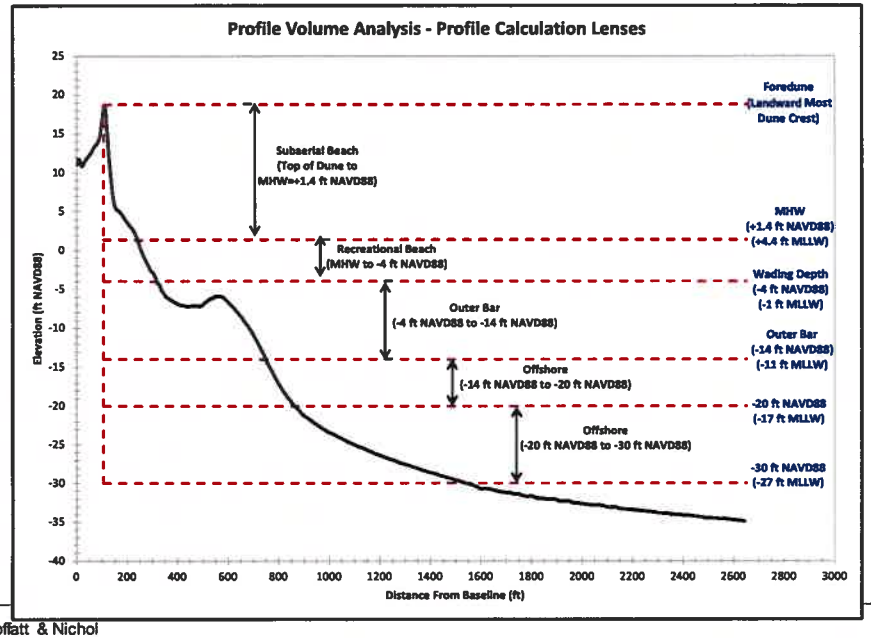
Project Monitoring & Performance

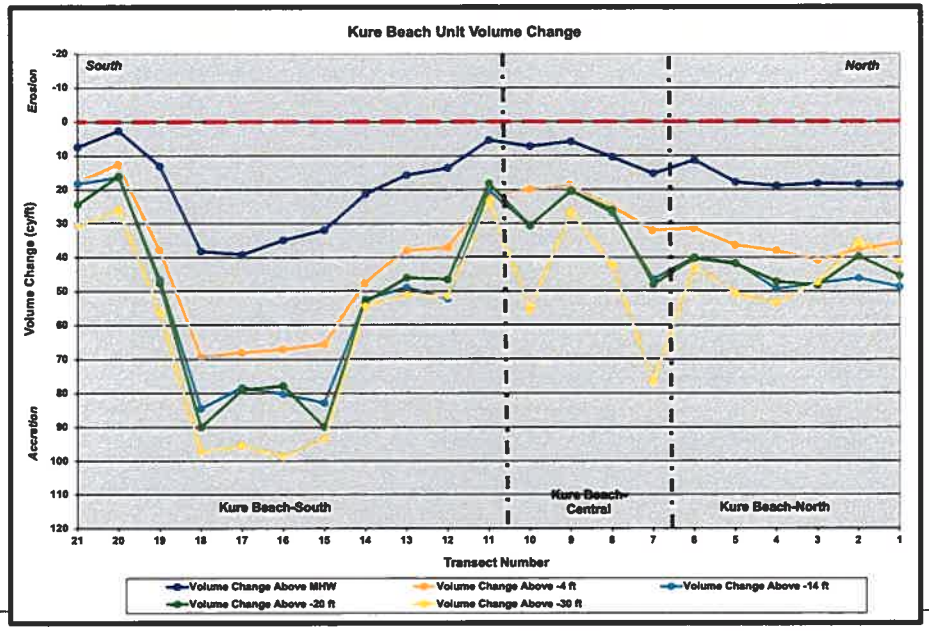
- New Hanover County Shoreline Mapping Program (2014 – Present)
  - Annual Surveys Along USACE Transects (Data Provided to USACE)



Project Monitoring & Performance

- New Hanover County Shoreline Mapping Program (2014 – Present)
  - Shoreline Change At MHW (+1.4 ft NAVD88)
  - Volume Change Above MHW, -4 ft NAVD88, -14 ft NAVD88, -20 ft NAVD88, -30 ft NAVD88





Project Monitoring & Performance

- New Hanover County Shoreline Mapping Program (2014 – Present)
  - USACE CSRM Project Performance

KURE BEACH 2019 CSDR PROJECT = 625,502 cy		
Monitoring Period	**Volume Loss (cy)**	**Percent of Fill Lost**
2019 - 2020	-207,195	33.12%
2020 - 2021	-152,157	24.33%
2021 - 2022	-91,154	14.57%
2019 - 2022 Losses =	***-450,506***	***72.02%***

Future Nourishment Plans

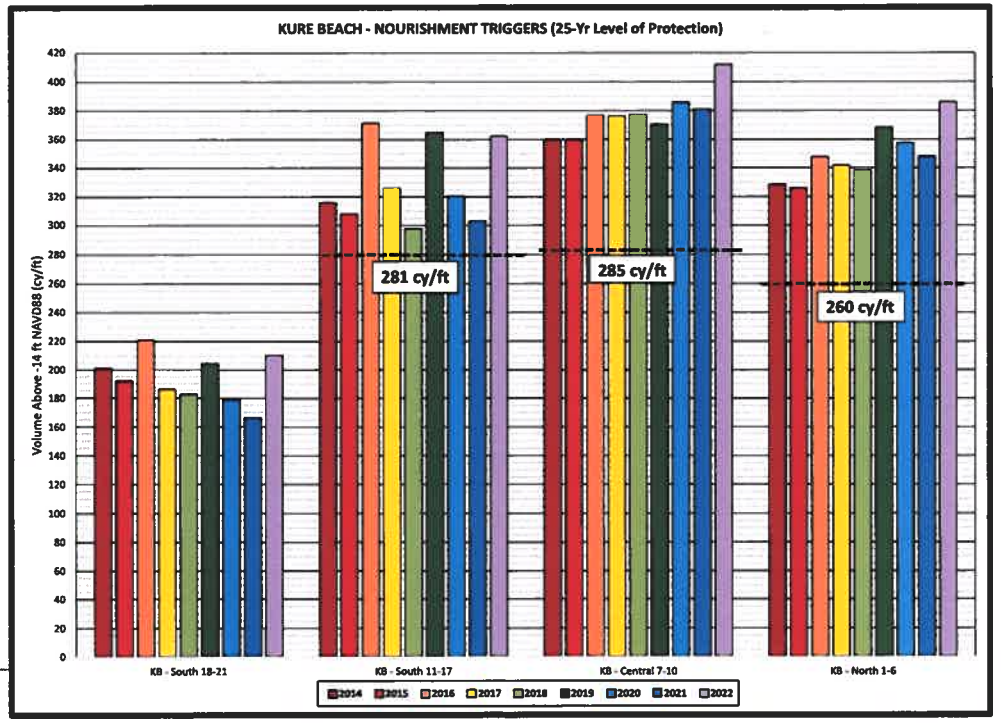
- USACE Project Continuation
  - 8 Additional Projects Under Current Authorization
    - Anticipated in 2025, 2028, 2031, 2034, 2037, 2040, 2043, 2046

- ***Town Intends To Cooperate With The USACE On Extension Of The Federal Project Past 2047***

Future Nourishment Plans

- Town/County Planning
  - Used SBEACH to Develop Nourishment Triggers for a 25 Year Level of Protection
  - Monitor Volumes Each Year As Compared to Potential Nourishment Triggers
  - County Holds Permits for Construction

Representative Transect	Shoreline Reach	25-yr Trigger Volume (cy/ft)	Weighted Trigger Volume (cy/ft)
KB-03	Kure Beach – North	254	260
KB-05		270	
KB-09	Kure Beach – Central	285	285
KB-11	Kure Beach – South	305	281
KB-15		266	
KB-18		NA	NA
KB-20		NA	NA



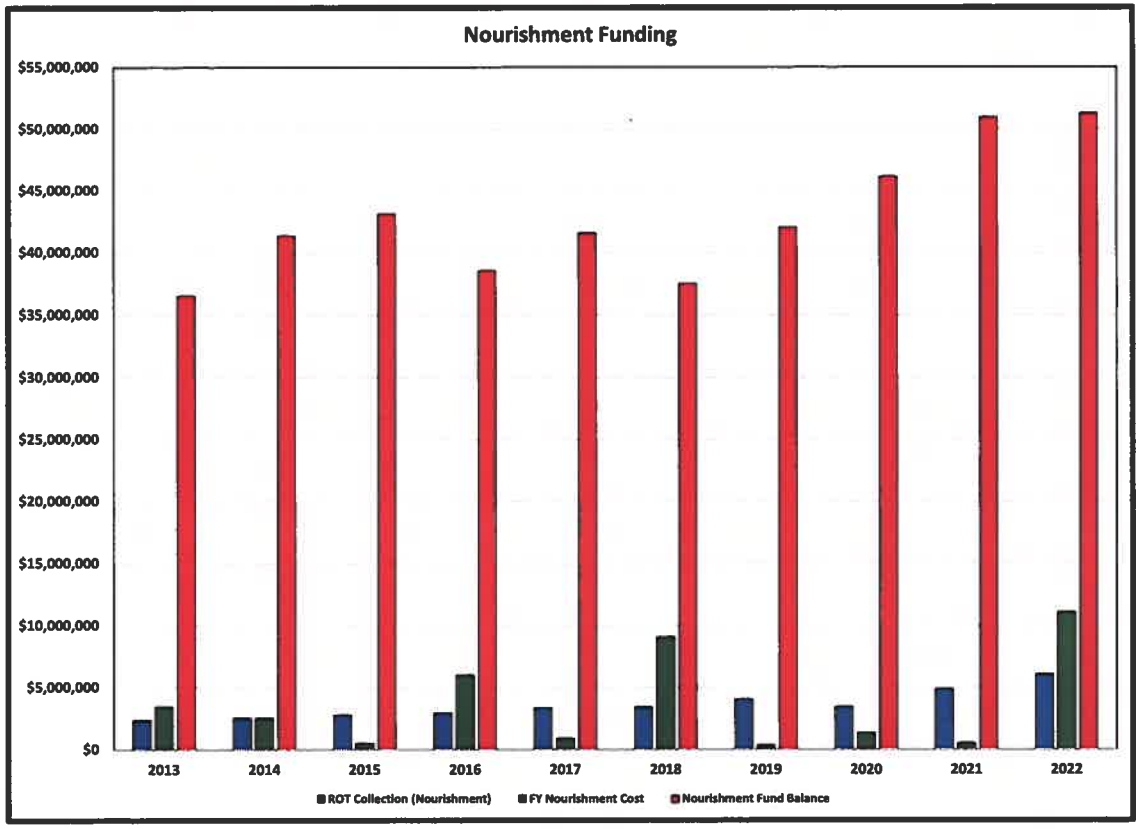
Financial Resources

- Cost Share Formula
  - Federal – 65%
  - State – 17.5%
  - Local – 17.5% (NHC)

- Local Share Is Paid By The County From A Beach Nourishment Fund
  - Room Occupancy Taxes From Wrightsville, Carolina, and Kure
  - Interlocal Agreement Amongst The Towns and County

Financial Resources

- Room Occupancy Tax (6%)
  - 60% of The First 3% Allocated To Beach Nourishment
  - 2022 ROT Allocated To Beach Nourishment = $6.1 M
  - Average Annual Expenditures = $3.6 M (Last 10 Years)
  - Average Annual ROT Allocations (With Interest) = $4.7 M (Last 10 Years)
  - Current Fund Balance of $51.3 M



Public Involvement

- Advertised on Town Website on 11/27/2023 and Pleasure Island News on 11/30/2023 & 12/6/2023
  - Draft Report Provided Online for Download
- Public Comment Period From 11/27/2023 – 12/15/2023
  - Written or In Person at Town Meeting
- Presentation to the Town and Public on 12/15/2023
- All Town and Public Comments Will Be Summarized and Included in an Appendix to the Beach Management Plan

Next Steps

- Finalize Beach Management Plan (Summarize Town & Public Comments)
- Submit Final Report to NCDCM by January 5, 2024
- NCDCM Will Review the Beach Management Plan and Provide a Recommendation (*At Least 10 Days Prior to the North Carolina Coastal Resources Commission Meeting*)
- Present the Beach Management Plan to the North Carolina Coastal Resources Commission for Approval on February 21 - 22, 2024

Summary

- Successful Project Since 1997
  - 3 Year Interval (9 Projects Under Current Authorization, 8 More Projects Anticipated)
  - Template – 25 ft Dune @ +12.5 ft NAVD88, 50 ft Storm Berm @ +8.0 ft NAVD88, Varied Construction Berm (Typically 100 ft) @ +5.5 ft NAVD88
- Borrow Sources
  - Offshore Borrow Area B = 9.7 Mcy
  - Carolina Beach Inlet (Infill Rates ≈ 300,000 cy/yr)
- Monitoring
  - USACE and NHCSMP Annual Monitoring Programs
  - Analysis Indicates Successful Management of Template & Borrow Source Throughout Project History
- Financial Resources
  - 60% of First 3% of ROT (ROT Allocations = $6.1 M in 2022)
  - Annual ROT Revenues > Annual Nourishment Expenditures
  - $51.3 M Beach Nourishment Fund Balance

Thank you

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