




Project Updates from Hatteras Island, Dare County

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Background

- Beach Renourishment
  - *Avon[1], Buxton[2]*
- Groin Repairs[3]
  - *Old Lighthouse site, Buxton*
- Offshore sand search[4]
  - *Cape Hatteras federal waters*







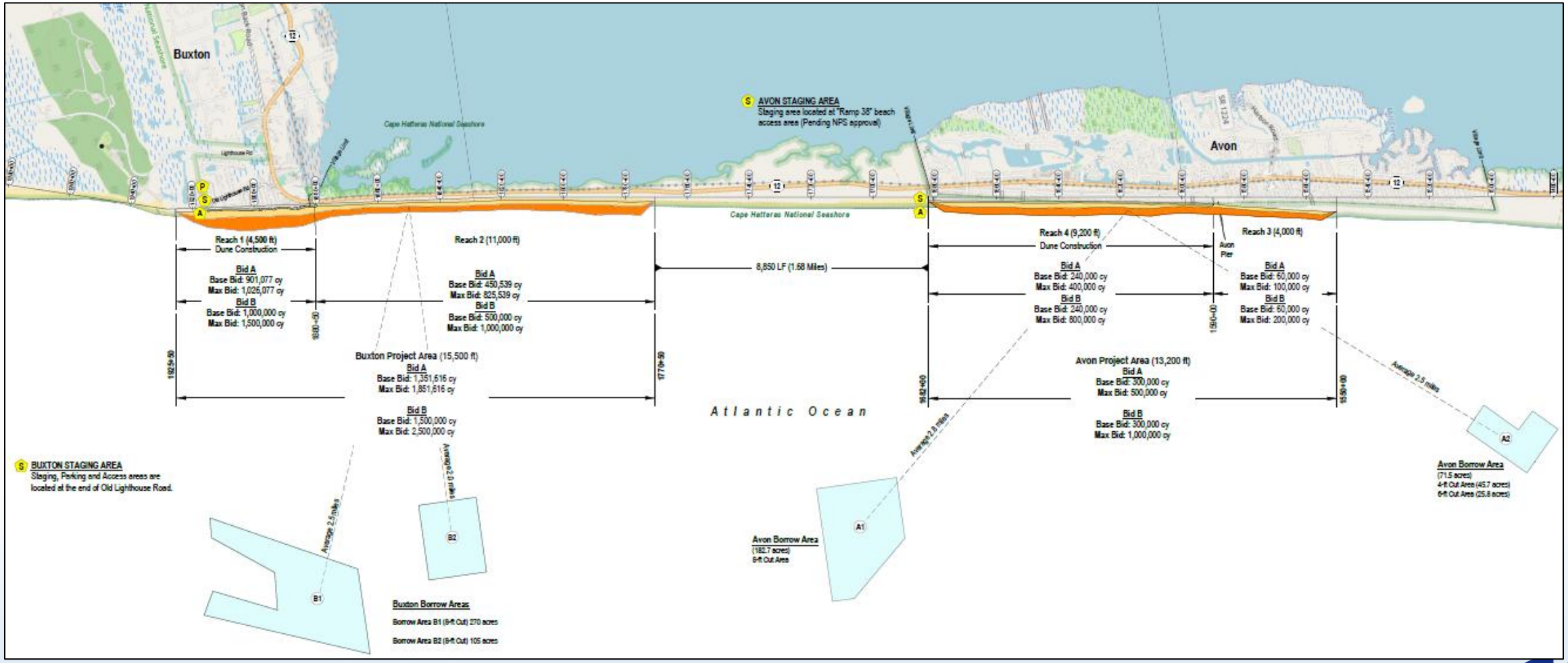


Beach Renourishment
Purpose and Goals

- Protect NC Highway 12 and infrastructure
- Restore erosional hotspots and provide higher level of storm protection
- Provide wider recreational beach and additional wildlife habitats
- Integrate dune management plan into the nourishment design
- Maintain eligibility for future FEMA community assistance funds

Beach Renourishment

Overall Plan



Beach Renourishment

Permits

- NPS Sediment Management Framework Final EIS (March 2021)
- NPS Joint Record of Decision (May 2021)
- 401 Water Quality Certifications (Nov 2025)
- USFWS Biological Opinion (Dec 2021)
- NC Division of Coastal Management Permits (Jan-Feb 2026)
- NPS Special Use Permit (Feb 2026)
- USACE Permits (Mar 2026)

Beach Renourishment
Environmental Protection

- Sea Turtles
  - Relocation trawling
  - Daily beach patrols by NPS
  - Nighttime monitoring by EAI
- NPS Resource Protection Area
  - South Buxton tern colony
- Post Project Ecological Monitoring
  - Benthic invertebrates
  - Sediment characteristics

Beach Renourishment

Avon

- Pre-project condition
  - *>100% of 2022 volume remained*
  - *Hot spot of erosion washed out dune within ~2,000 ft of Avon Pier*



Beach Renourishment

Avon

- Timing: 31 May to 25 June
- Contractor: GLDD
- Length: 6,000 ft
- Volume: 375,000 cy (62.5 cy/ft)



Beach Renourishment
Avon

- Pre- vs Post-Project Condition





Beach Renourishment

Buxton

- Pre-project condition
  - *31% of 2022 volume remained*
  - *Eroded / washed out dune along ~5,000 ft of Buxton Village*
  - *20 houses collapsed*
  - *NC 12 threatened at northern Village limit*



Beach Renourishment

Buxton

- Timing: 31 July to 3 October
- Contractor: GLDD
- Length: 8,600 ft*
- Volume: 2,000,000 cy (232.5 cy/ft)



**original length 15,500 ft*

Beach Renourishment

Buxton

- Incidental take limit exceeded
  - 3 October
  - USACE recommends suspension of dredging activities
  - Dare County agrees to stop work
- Final Volume Placed:
  - 1.9 million cy

Beach Renourishment

Buxton

- Pre- vs Post-Project Condition





Groin Repairs

Old Lighthouse site, Buxton

- Installed 1969
- Repaired 1975, 1982, 1994
- US Navy, US Coast Guard, National Park Service



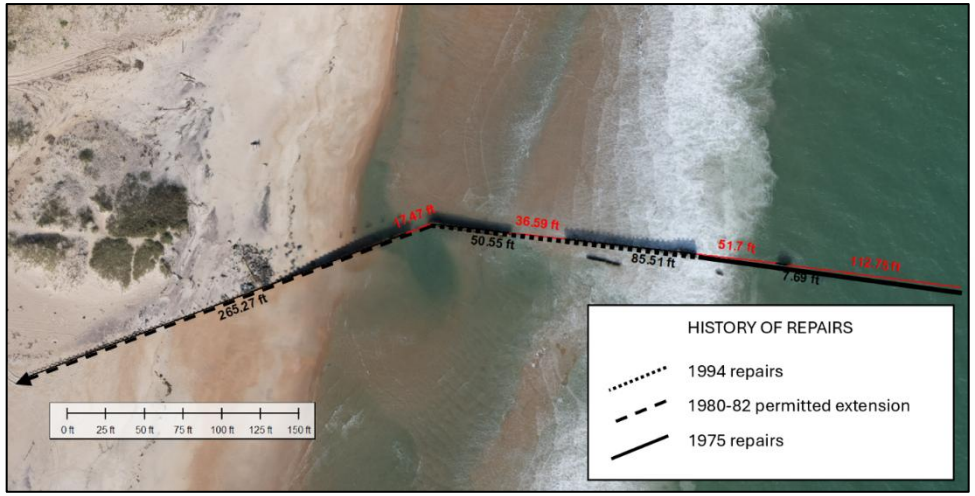




Groin Repairs

Old Lighthouse site, Buxton

- Community outreach between Buxton residents, Dare County, state/federal partners
- Designed for regulatory compliance with NC DCM, cost of materials and work
  - Expected improvement in dune conditions at FUDS
  - Knock-on positive impacts along Buxton Village

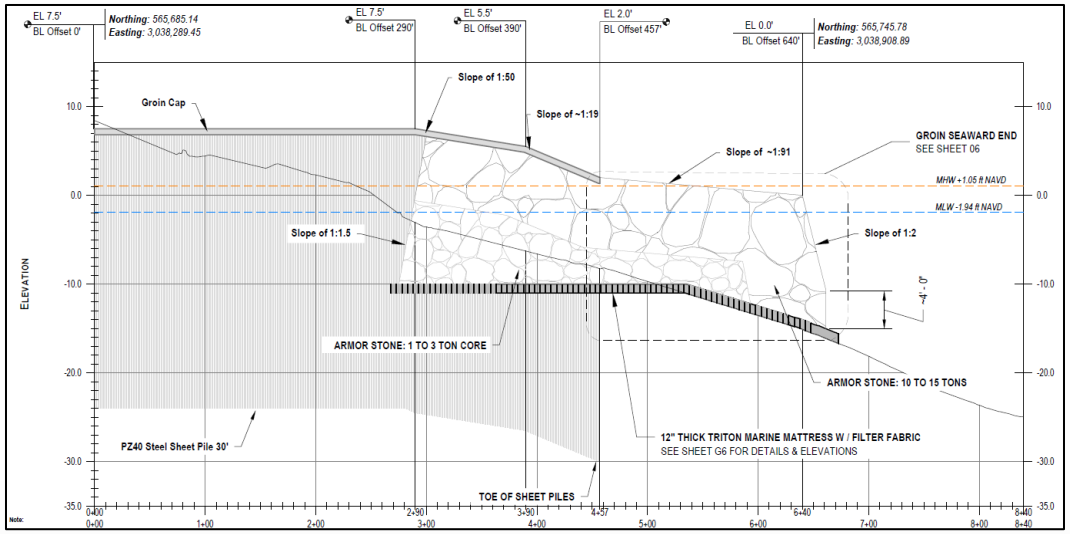


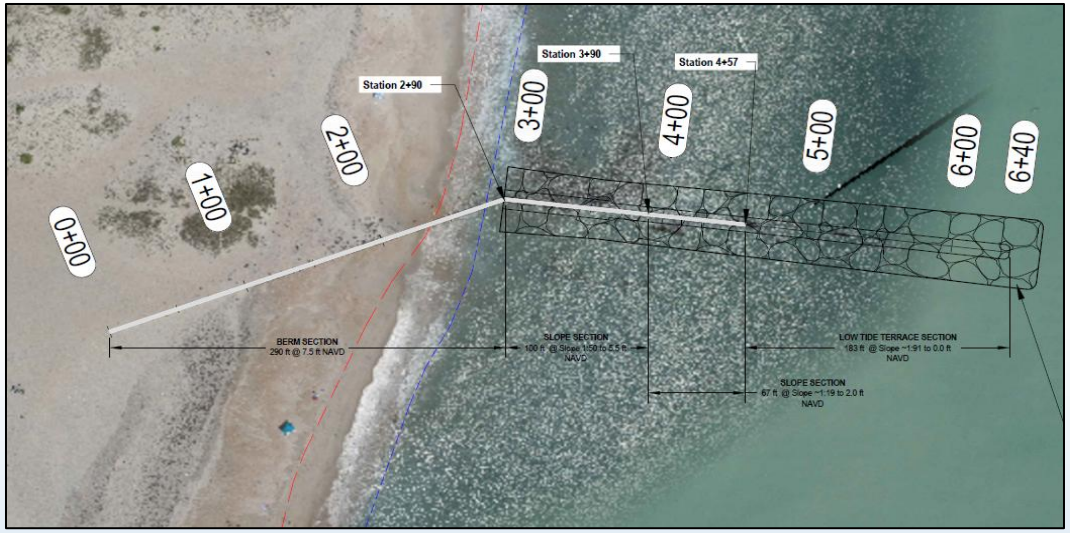


Groin Repairs

Old Lighthouse site, Buxton

- Community outreach between Buxton residents, Dare County, state/federal partners
- Permitted differently according to agency
  - NC DCM – repair authorization
  - NPS – Special Use Permit
  - NC DWR – 401 certificate
  - USACE – Major Permit





Groin Repairs

Old Lighthouse site, Buxton

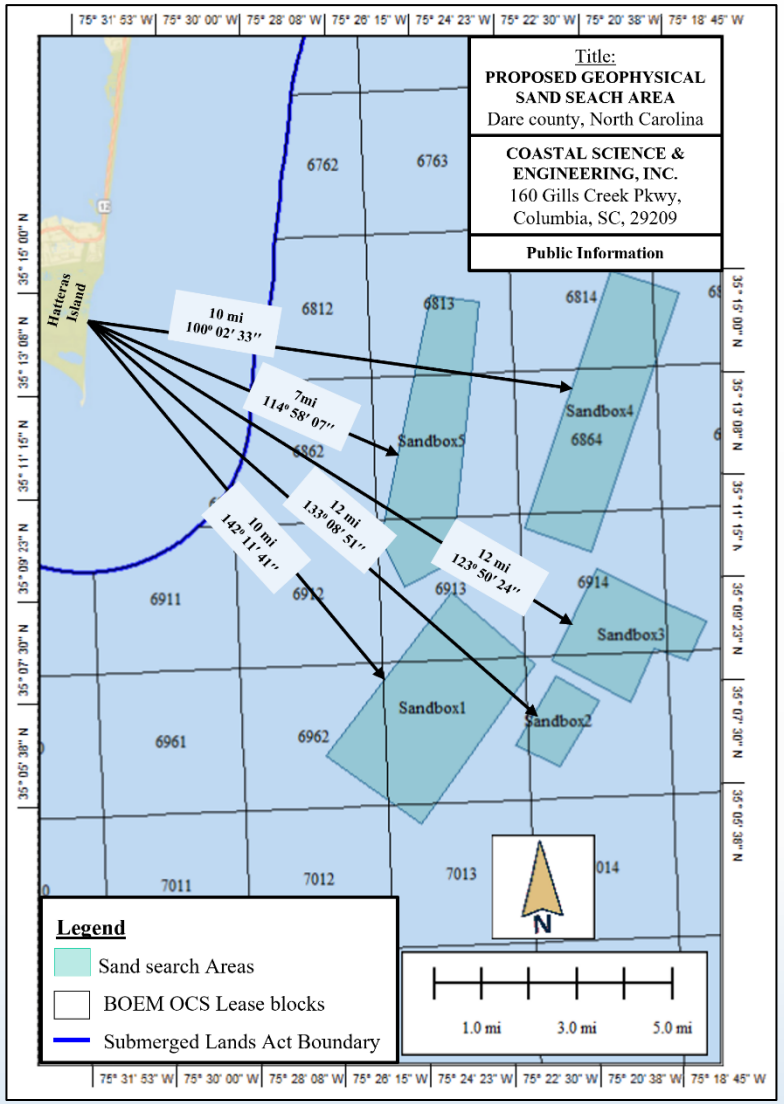
- Design specifications coordinated January 2025 – September 2025
- Permit Application Submitted October 2025
- Permits Received March 2026
- Construction begins August 2026
- Scheduled completion late 2026



Offshore Sand Search

Cape Hatteras federal waters

- Goal: obtain BOEM leases for multiple future projects at Buxton, Avon
- Funded by state grant
- BOEM permit coordinated March 2026 to August 2026
- Geophysical surveys completed September 2026
- Geotechnical sampling scheduled for early 2027



Next Steps

- Renourishment Closeout
  - *Buxton inspection October 2026*
  - *CSE AD survey October 2026*
  - *Annual surveys scheduled for early fall at Avon, Buxton*
  - *Quarterly benthic monitoring for next two years at Avon, Buxton*
- Groin Repairs
  - *Expected completion late 2026*
- Offshore Sand Search
  - *Coordinate geotechnical sampling with BOEM, collect samples early 2027*



Acknowledgements

- Local Sponsors / Advocates
  - Dare County
  - Buxton Civic Association
  - National Park Service
- State Permit Agencies
  - NC Division of Coastal Management
  - NC Division of Water Resources
- Federal Permit Agencies
  - National Park Service
  - US Army Corps of Engineers
- State/Federal Resource Agencies
  - NC Wildlife Resources Commission
  - US Fish and Wildlife Service
- Contractors
  - Great Lakes Dredge & Dock Company
  - Environmental Associates Inc.
  - Coastal Transplants