NCDEQ
Division of Coastal Management Update

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Beach & Inlet Project Management Coordinator

- BS Skidmore College – Management and Business / Geoscience
- MS UNCW - Geoscience
  - Research in Paleoceanography
- TI Coastal Services Inc.
  - Coastal Geologist & Surveyor
- NCDEQ
  - Shoreline Surveyor - DMF
  - Field Rep – DCM
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Beach and Inlet Management Plan (BIMP)

Created in 2009	Original Beach and Management Plan Framework for shoreline management
Updated in 2016	Review and update of Coastal, Economic and Project Data and Results Assessed Coastal Management needs and funding opportunities
First order of Business since hire in July 2026	2026-2027 BIMP Opportunity to guide the next decade of NC's Coastal Management

BIMP History 2009:

2009 Report results:

- First comprehensive statewide beach & inlet management strategy
- 4 regions and 9 subregions
- Evaluated nourishment & inlet management practices
- Developed long-term sediment and dredging strategies
- Established funding & maintenance needs
- Incorporated committees and regular public meetings

Take aways:

- $45 - $55 million annually for nourishment
- ~ $30 million annually for inlet dredging
- Beach Nourishment 4-5 million annually cy.

BIMP History 2016:

2016 Update:

- Updated project, coastal, & socioeconomic data
- Assessed progress since 2009
- Refined nourishment and inlet management priorities
- Highlighted the economic value of NC's coast
- Re-evaluated long-term sustainable funding requirements
- Reinforced proactive shoreline management

Takeaway Numbers:

- $55 - $60 million annually for nourishment
- Predicted to increase to ~ $75-$85 million
- Return on investment of the BIMP

BIMP Update 2026

- 2026 Update Goals
  - Current coastal conditions & project data
  - New management approaches, strategies, and technologies
  - Update economic impacts & funding requirements
    - If growing coasts & costs,
    - Then exceeding budgets.
  - BIMP Budget
    - $373,884 State Funding Allocation
  - Comprehensive update to the 2016 BIMP
    - Key takeaways
  - Deliver recommendations “roadmap” for future management and investment
    - guidance for long-term and resiliency planning



Completed Projects

- Nags Head, Avon, & Buxton

What DCM looks for onsite

- CAMA rules and regulations including
- 07H312
- Sediment criteria
- Permit Conditions
- Agency Concerns

Completed Projects



- Nags Head
  - Coastal Plantings, Escarpment management



Completed Projects





Avon 2027

- Tilling completed to reduce compaction for turtle nesting activities



Completed Projects

Buxton

- Project Completed last week





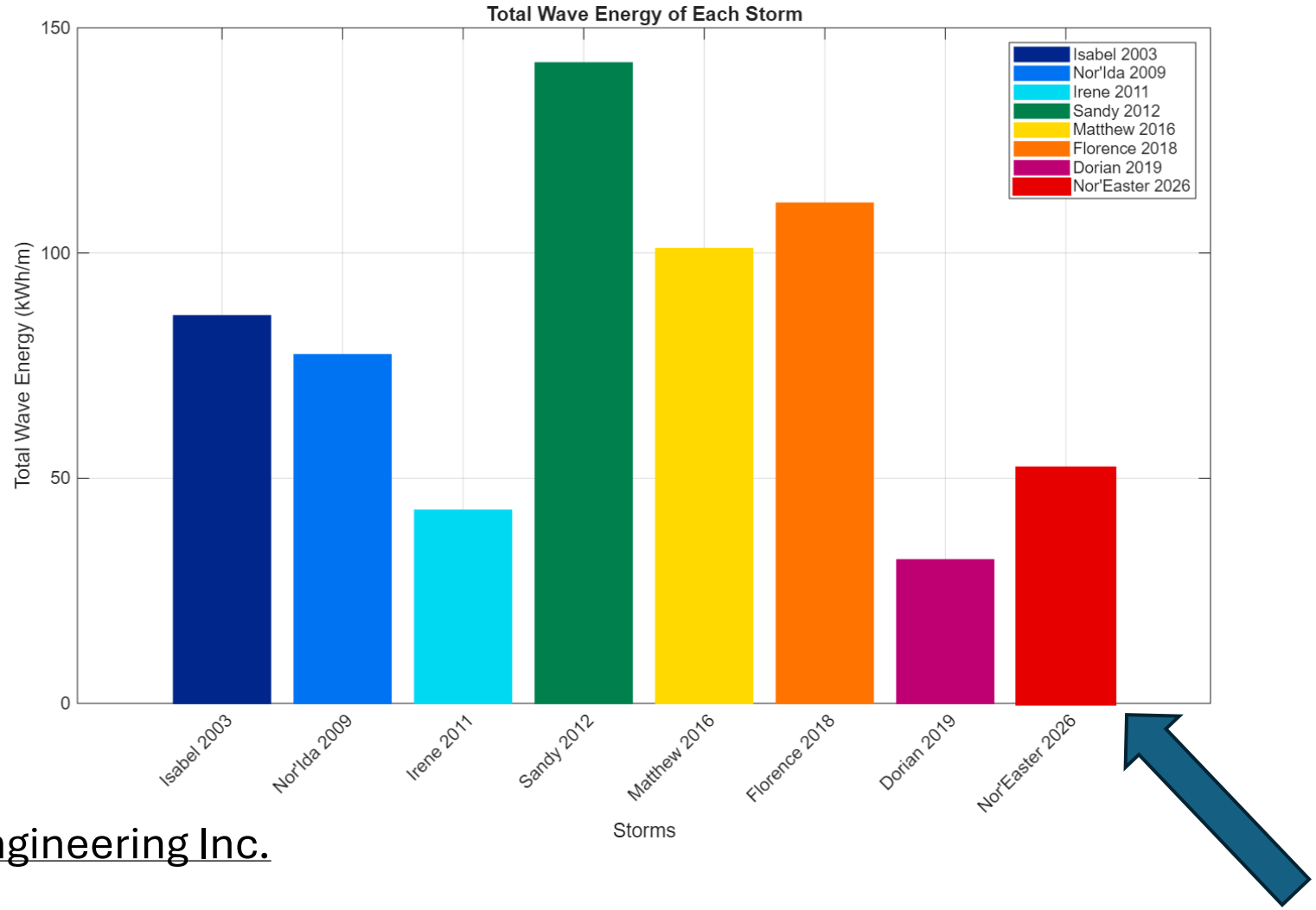




Sept 2026 Nor’easter: How Nourishment Fared

greater than Hurricane *Dorian* but less than Hurricane *Florence*. Both were FEMA claims for Dare County.

brought more total wave energy than both Hurricanes *Dorian* and *Irene*



Figures Courtesy of Coastal Science & Engineering Inc.

Buxton

Sept 2026 Nor'easter: How Nourishment Fared





Figures Courtesy of Coastal Science & Engineering Inc.

- Volume Losses / Impacts
  - Surveys indicate losses of ~200kcy
- Benefits of timing with this nourishment project.
- Berm crest moved upward and landward,
  - portions of the beach are >2 ft higher than before the storm

- CSE pleased with how the template at Buxton held
- Damages could have been worse.

Sept 2026 Nor’easter: How Nourishment Fared

Nags Head





Initial Feeback:

Ramp 1 - Enterprise Street:

- Estimate approx. 10%–15% of the sand fence damaged.
- Mostly separation of the oceanward fence panel



Figures and Notes Courtesy of Moffit & Nichol

Sept 2026 Nor’easter: How Nourishment Fared

Nags Head Cont.





Figures Courtesy of Moffit & Nichol

- Adjustment to beach profile
- Sand buildup on the back beach
- Formation of sand bars in the nearshore area.
- Only Minor over wash S Seagull Drive.

Projects Beginning This Fall/Winter





Looking ahead 2027: Issued Permits

4 Towns:

-Duck

-Southern Shores

-Kitty Hawk

-Kill Devil Hills

<u>New Hanover County / Figure Eight Island</u>

<u>3 projects:</u>

- Mason Inlet
- Figure 8 Banks Channel
- Nixon Channel

- Bogue Banks
- Oregon Inlet Maintenance

Tying it back to BIMP

- Looking forward to BIMP
- for Everyone in NC
- New data & strategies
- Fiscally favorable opportunities
- Sustainable over time
  - Both Monetarily & Environmentally
- Enhancing a playbook
  - Everyone takes part in execution



Thank you

-Phil D’Angelis

