



Hardened Structures in North Carolina... despite the ban

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Before the law, there were CRC rules...

- Regulation passed by CRC in 1983
- 15A NCAC 7H .0308(a)(1)(A) preferred erosion control measures shall be beach nourishment and relocation
- 15A NCAC 7H .0308(a)(1)(B) erosion control structures, including jetties and groin, are prohibited.
- 15A NCAC 7H .0308(a)(1)(D) erosion control measures which interfere with public access and use of ocean beaches is prohibited
- 15A NCAC 7H .0308(a)(1)(E) erosion control measures which significantly increase erosion on adjacent properties are prohibited
- Amended in 1989: 15A NCAC 7H .0308(a)(1)(M) permitting exceptions to the rules when necessary to protect a bridge, where nourishment is inadequate to protect public health and safety and no adverse impacts on adjacent private prop and minimal impact on public use of beach. (emergency/temp rules, then permanent rule)



GS 113A-115.1

HB1028 and SL2003-427.

Reps. K.Williams & Justice
with Gorman Grady
Preston and Stiller. No
dissenting votes.

Signed by Governor Easley
on August 19, 2003.

Prompted by Pelican's
Perch in Kitty Hawk
(shown) or WB-Shell Island
case?





GS 113A-115.1- Definitions

- (a) Erosion Control Structure means a breakwater, bulkhead, groin, jetty, revetment, seawall, or any similar structure.
- (b) Ocean Shoreline means the Atlantic Ocean, the Oceanfront Beaches, and frontal dunes. The Term Ocean Shoreline includes an ocean inlet and lands adjacent to an ocean inlet but does not include that portion of any inlet and lands adjacent to the inlet that exhibits characteristics of estuarine shorelines.



GS 113A-115.1- Ban

- (b) No person shall construct a permanent erosion control structure in an ocean shoreline. The Commission shall not permit the construction of a temporary erosion control structure that consists of anything other than sandbags in an ocean shoreline. This section shall not apply to...(see next slide)
- (b1) Ban doesn't limit CRC to adopt rules to designate AEC, govern sandbags or govern EC structures on Estuarine Shoreline



GS 113A-115.1- exceptions

- (b)(1)- any approved prior to 7/1/03 “grandfathers” in anything approved before the ban.
- (b)(2)- allows those constructed prior to 7/1/74 that has been in continuous use at an inlet maintained for navigation
- (b)(3)- allows Terminal Groins permitted pursuant to this section and (d) rules that prohibit permanent ECS shall not apply to Terminal Groins.



GS 113A-115.1 more

- (c) Commission can renew a permit for an ECS granted by variance prior to 7/1/95 if the CRC finds: same permitted dimensions, no practicable alts, will comply with other rules/laws. to allow other designs for the groins. A tube field is not a Terminal Groin so doesn't have to follow those rules. **BHI geotube groin field**
- (c1) repair/replace of temp structure (sandbags) permitted prior to 7/1/95 if- marine rock outcropping...**RIGGINGS**



GS 113A-115.1 Terminal Groins (added 2009)

- (e)- extra docs required for a TG application
- (f) CRC shall issue groin permit if it meets 113A-120 and 1-6 of this law.
- (f1) special measurement line for dune building associated with TG (OIB)
- (g) max 7 TG permits including New River Inlet and Bogue Inlet (BHI and OIB built, HB considered, NTB considered- maybe reconsidering, Figure 8 has issues with easement)
- (h) local governments can't use certain types of funds for TGs
- (i) CRC will report to ERC about groins regularly (now 5 year cycle)



Despite this “total ban” there are at least 15 hardened structures on NC’s ocean shorelines and 12 “super-sized” sandbag structures authorized by CRC variance



Hardened Structures in NC

- OIB Terminal Groin
- BHI Terminal Groin and groin field
- Fort Fisher Rocks
- Riggings “forever” sandbags
- Carolina Beach Rocks at north end
- Masonboro Inlet Jetties
- Salter Path/PKS Whaler Inn/AB Circle old concrete walls
- Fort Macon Groin
- Beaufort Inlet rock structures
- Shackleford jetty/groin at inlet
- Buxton Groins
- Oregon Inlet Groin

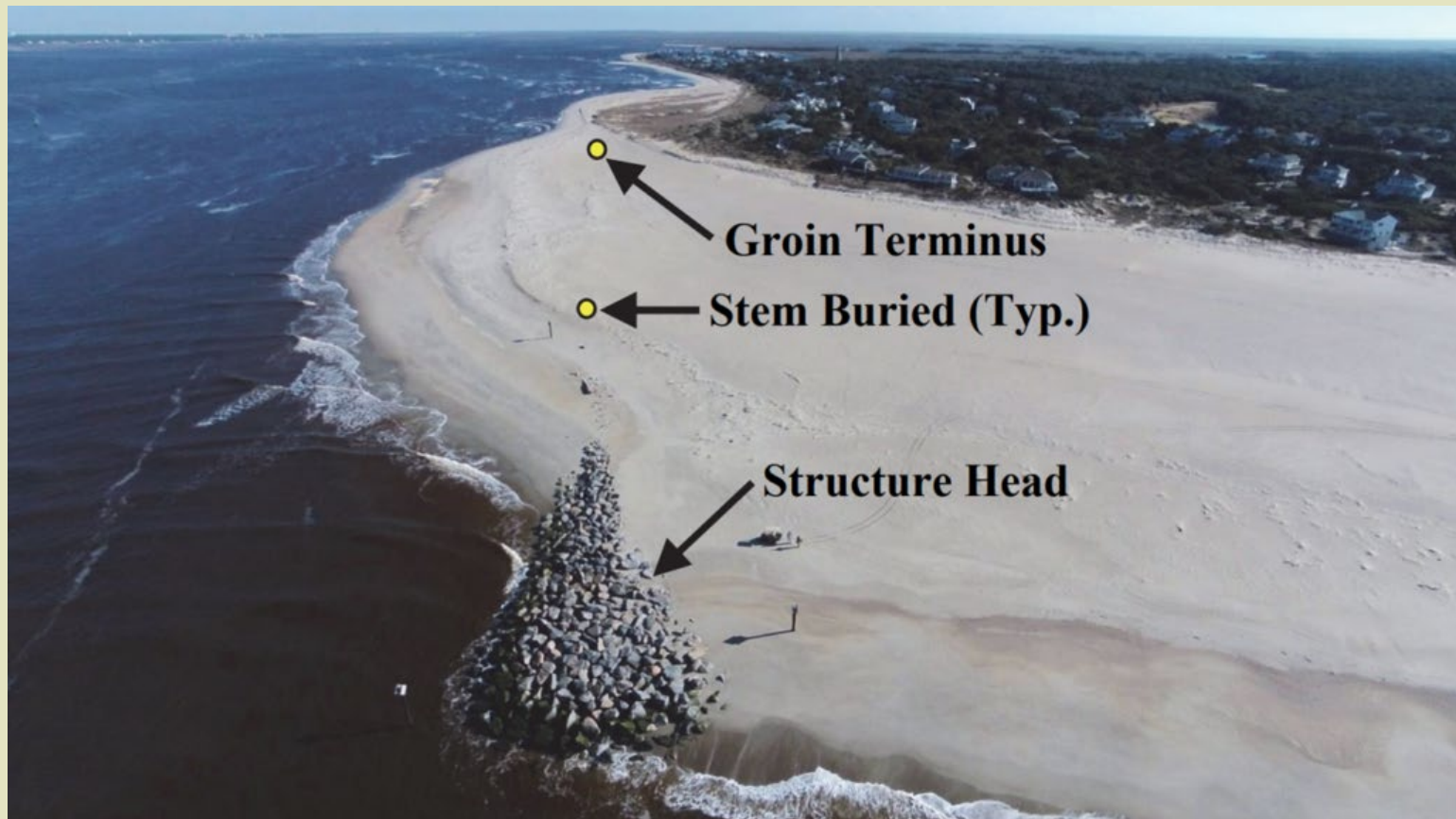


OIB Terminal Groin - 2022





BHI Terminal Groin- 2016





BHI Groin field SE of TG (1996, through CRC variance)



Fort Fisher- Rocks 1996





Riggings “forever” sandbags





Riggings v CRC (1985-2018)

- 1985 permit for sandbags from LPO
- DCM permits allowed bags until 2000
- CRC issued 3 variances 2000-05. 4th in 2005 after \$3m FEMA grant for relocation, HOA voted against grant in 2006
- 5th variance heard January 2008, denied. CRC re-heard April 2009, denied again. June 2012 PJR in favor of Riggings.
- 2013 COA for Riggings, with dissent
- 2014 NC Supreme Court tied, Riggings won without precedent
- CRC issued a variance in 2015 based on COA opinion
- 2018 Law Change with exception for Riggings to keep bags as long as the structures are there.



Carolina Beach rocks- N. End 2,075' long
Authorized by congress as addition to first nourishment in 1960's



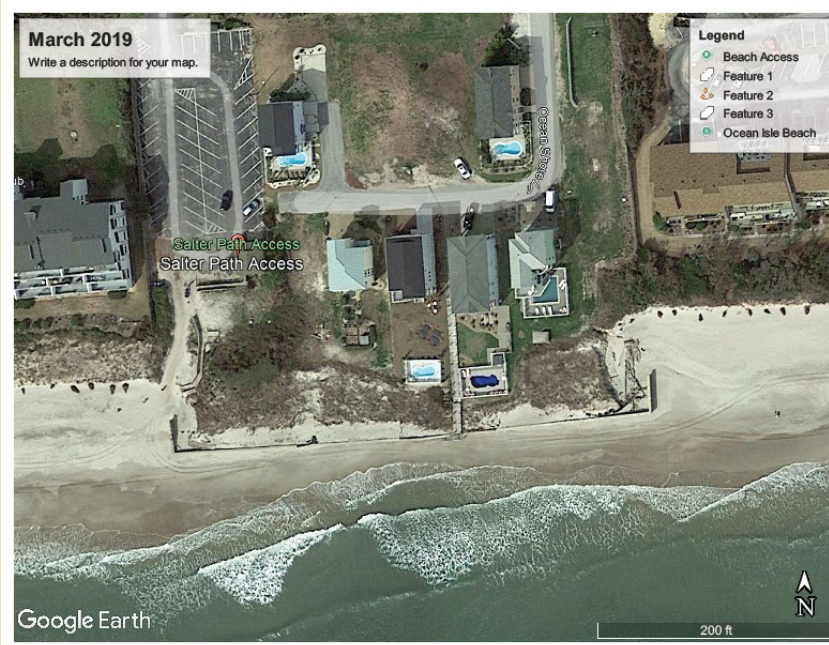


Masonboro Inlet Jetties 1968 (north) and 1980 (south)





Salter Path concrete wall @ former Iron Steamer pier



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Whaler Inn-PKS and AB Circle



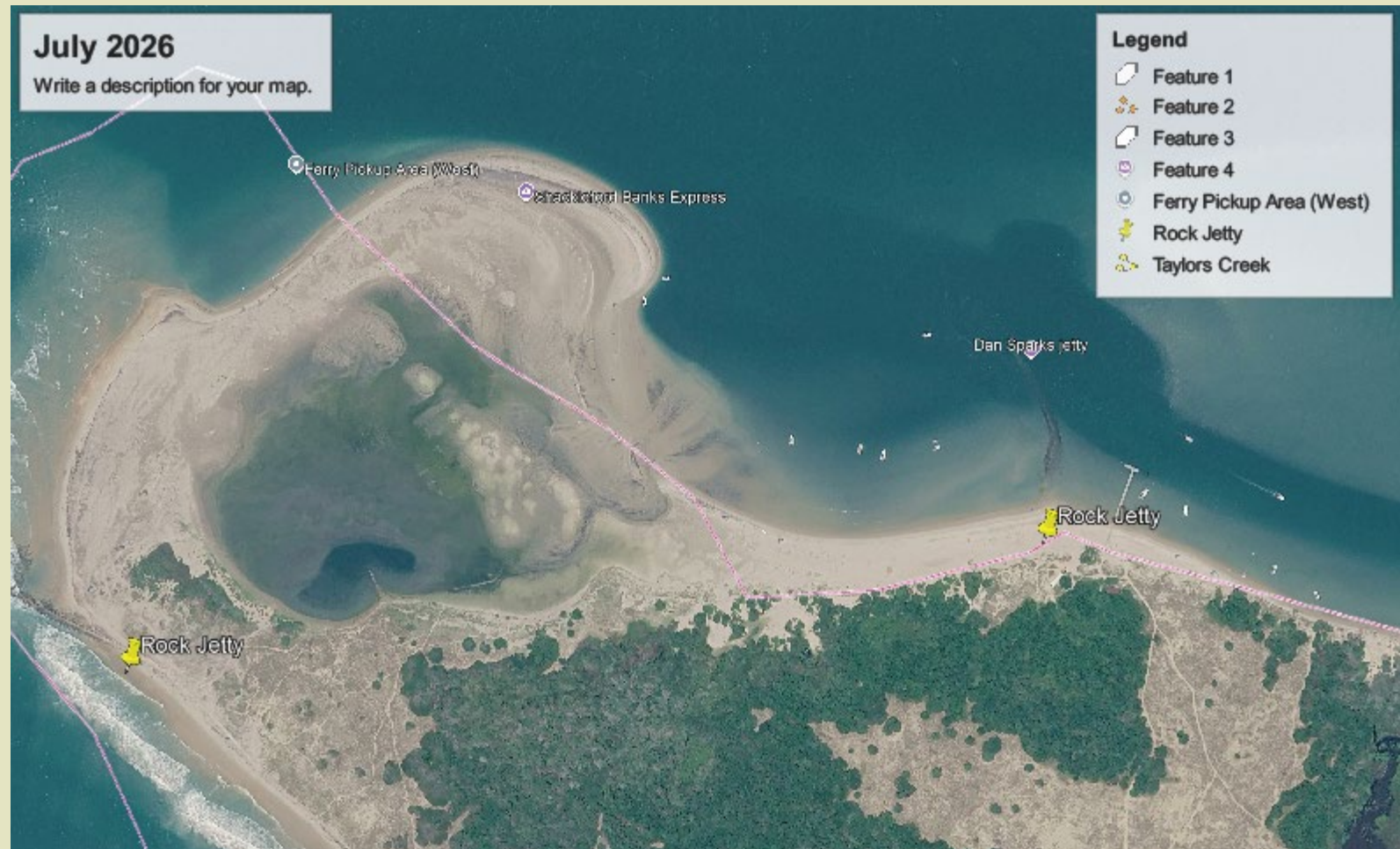


Fort Macon Groin (1845-ish)





Shackleford @ Beaufort Inlet



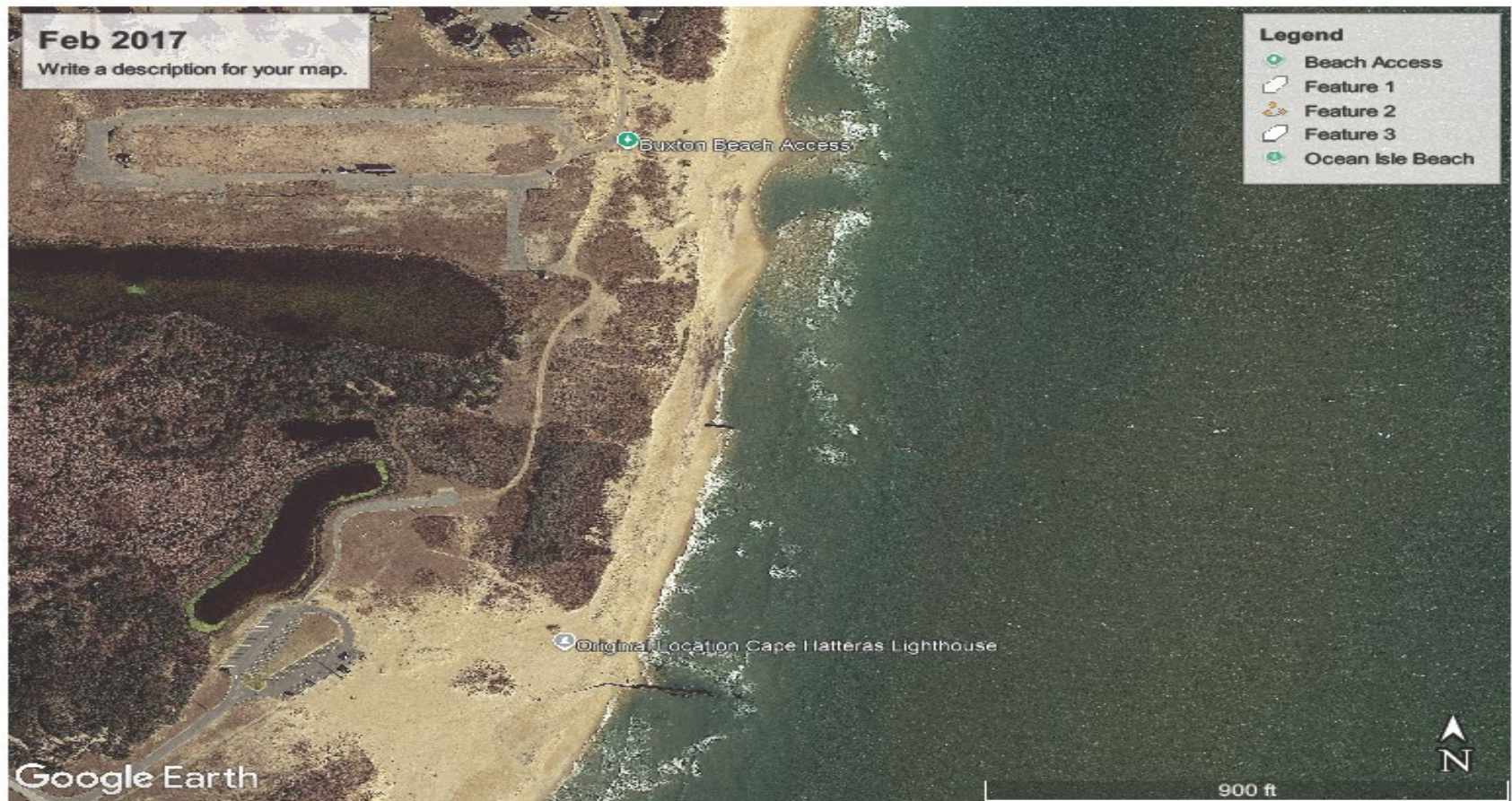


Shackleford @ Lookout Bight (1917)



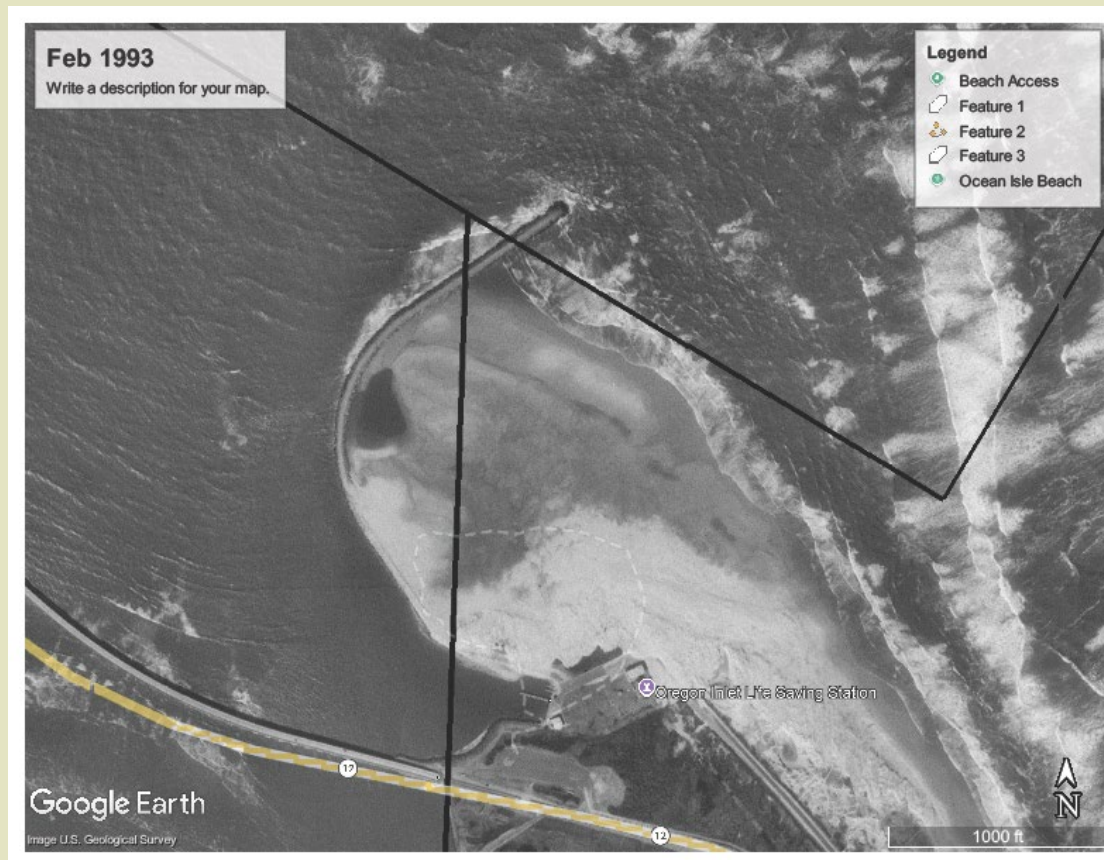


Buxton Groins (1970)





Oregon Inlet Terminal Groin (1991)





CC of NC v. Haste (1991)

- Conservation group wanted to challenge CAMA permit to DOT allowing
- DOT got 1989 permit authorizing groin at Bonner Bridge to protect bridge/12 from erosion. Would be prohibited by rule.
- DOT asked CRC to adopt emergency rule which added exception to the rule which allowed a terminal groin. Adopted 5/26/89
- CAMA Major 138-89 issued to DOT 6/22/89
- Emergency rulemaking had different notice/comment requirements
- After notice/hearing, CRC adopted as temp rule 12/1/89
- Group filed Third-Party Hearing 7/12/89



CC of NC v Haste, cont

- CC of NC argued emergency rule was void because CRC lacked authority because not an emergency
- Also argued that nourishment alone was enough, groin not needed to protect Bonner Bridge
- Also argued that CRC's certification for the temp rule didn't contain the needed findings under the APA
- Also argued the rule amendments' pre-requisites were not present for a temp rule.
- Vice-Chair denied Third-Party Hearing Request on all arguments



CC of NC v. Haste, cont

- COA disagreed with the CRC where interested parties notice required by CAMA wasn't given, even though the APA was followed for notice for emergency rules.
- CRC mischaracterized P's argument where EA had nourishment plus optional groin and scientist's affidavit sand was enough
- CRC incorrectly held that P's had to articulate with more specificity problems with the permit decision. Remanded for a CCH
- COA notes that decision will have little impact because CRC followed the rules for the permanent rule (vs emergency/temp rules) and DOT could apply again.



Do sandbags become a “hardened structure?”

- When they are installed for a certain “longer” period of time?
- When they are allowed to be larger than the 6’ x 20’ allowed by commission rule?



Are sandbags which remain in place for some longer period of time a hardened structure? If so, how long?

- Past Commission rules allowed for sandbags for 2 years or up to 5 if pursuing a long-term option.
- Current rules allow for 8 years 7H.0308(b)(2)(F)
- Current rules allow for a sandbag structure more than once if community is actively pursuing nourishment or relocation.
7H.0308(b)(2)(G)
- Sandbags must be removed within 30 days of threatened structure removal unless covered by sand. 7H.0308(b)(2)(I) and (J)



Are “super-sized” sandbag structures a hardened structure?

- Commission rules limit sandbag structures to 6' high x 20' wide overall. 7H.0308(b)(2)(L)
- The Commission has issued variances to this rule for at least twelve sites



“Super-sized” Sandbag structures authorized by CRC Variance

- Sunset Beach at The Pointe
- Ocean Isle Beach- east end
- Ocean Isle Beach- west end
- Oak Island- west end
- BHI Shoal Club
- WB-Shell Island before the inlet relocation (now removed/covered)
- Figure Eight- north end (some properties twice)
- NTB- Topsail Reef and Town project @ north end
- Emerald Isle- before the inlet relocation (now removed/covered)
- Ocracoke- DOT bags at north end and inlet area
- Rodanthe- DOT bags at on NC12 and at Mirlo Beach cul-de-sac
- Pea Island Visitor Center- DOT bags



Sunset Beach- The Point 2022 Variance for 1,000 linear feet of 12' x 25' sandbag structure



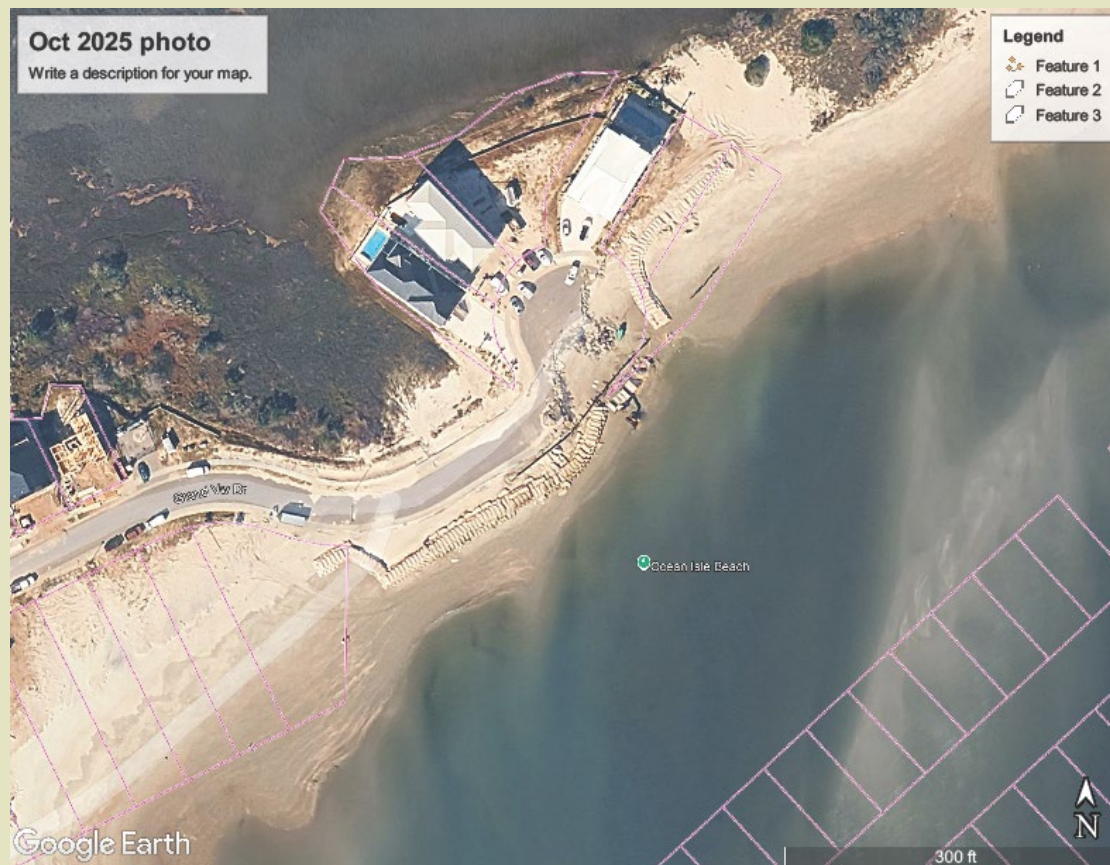


OIB West End- 2016 Variance to Picha for 45' x 12' sandbag structure





OIB East End- 2025 Variance to Pointe at OIB 8 lots 12' x 40' sandbag structure





West end of Oak Island- 2016 Variance to Golob et al for sandbags 30' x 15' (2014)





2025 Variance to BHI Shoals Club for 12' x 40' sandbag structure

ArcGIS Web Map



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PICTOMETRY 2026

Red: Band_1
Green: Band_2
Blue: Band_3
Water Bodies
County

1:854
0 0.01 0.01 0.03 mi
0 0.01 0.03 0.05 km





**1995 Variance to Shell Is. for larger bags
(removed for inlet relocation) Photo 1998 from Wilm Star News**





Shell Island cont.

- Large condo complex by Mason's Inlet in Wrightsville Beach
- CRC granted variance for larger sandbags next to base of structure.
- HOA (2 years later) brought a takings case based on denials for CAMA permit for steel bulkhead hardened structure.
- Rest of claims dismissed on quasi-estoppel
- COA held that permanent hardened structure is not part of riparian rights
- COA noted loss of riparian property is natural
- HOA and Fig 8 combined paid to move inlet north

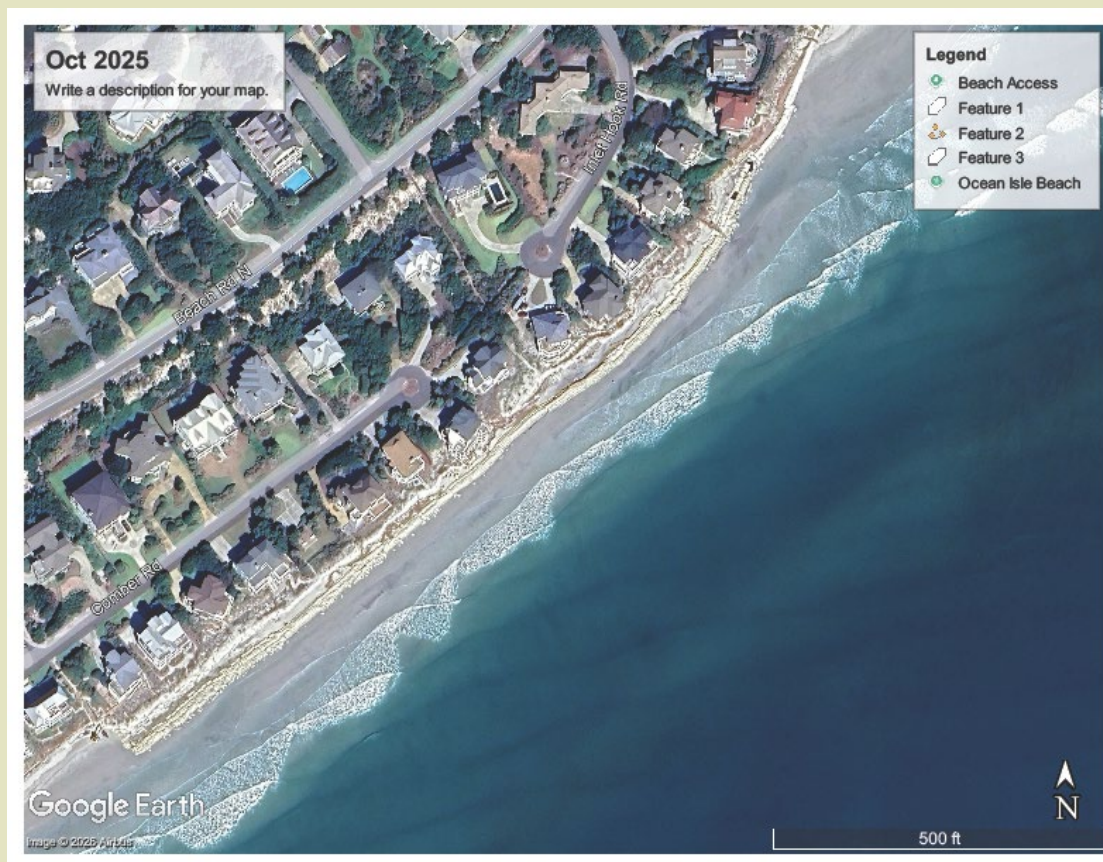


Shell Island v. Tomlinson 1999

- Allegation that “the protection of property from erosion is an essential right of property owners” but cited no law in support of argument that a landowner has a right to erect hardened structures to protect their property from erosion.
- Court noted that NC courts find erosion and inlet migration “natural occurrences, a consequence of being a riparian...landowner, “which at times operates to divest landowners of their property.”
- Quoted Carolina Beach Fishing Pier case from 1970- “Thus the lots of the plaintiff were gradually worn away by the churning of the ocean on the shore and thereby lots. Its title was divested by ‘the sledge-hammering seas the inscrutable tides of God.’”



Figure Eight- north end. First bags in early 2000's





Topsail Reef and NTB Bags





2026 Variance granted for 21 lots for 12' x 40' sandbag structure





Mirlo Beach





Since the 1983 rules...

1991 Oregon Inlet TG (rule amendment)

1996 Fort Fisher Rocks (variance?)

2016 BHI Terminal Groin (2009 law change)

2018 Riggings bags (2018 law change)

2022 OIB Terminal Groin (2009 law change)

+ 12 “supersized” sandbag variances



Questions? Thank you!

