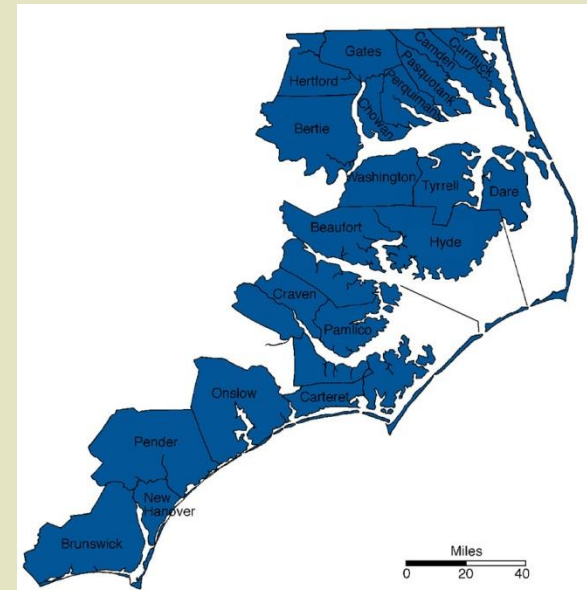




The CAMA and Barrier Island Development



Tara MacPherson
District Manager
NC DCM
Wilmington





Division of Coastal Management (DCM)

The DCM carries out:

- The State's Coastal Area Management Act (CAMA) of 1974
- State's Dredge and Fill Law of 1969
- Coastal Zone Management Act of 1972

in the 20 coastal counties, using rules and policies of the N.C. Coastal Resources Commission, known as the CRC. The division serves as staff to the CRC.



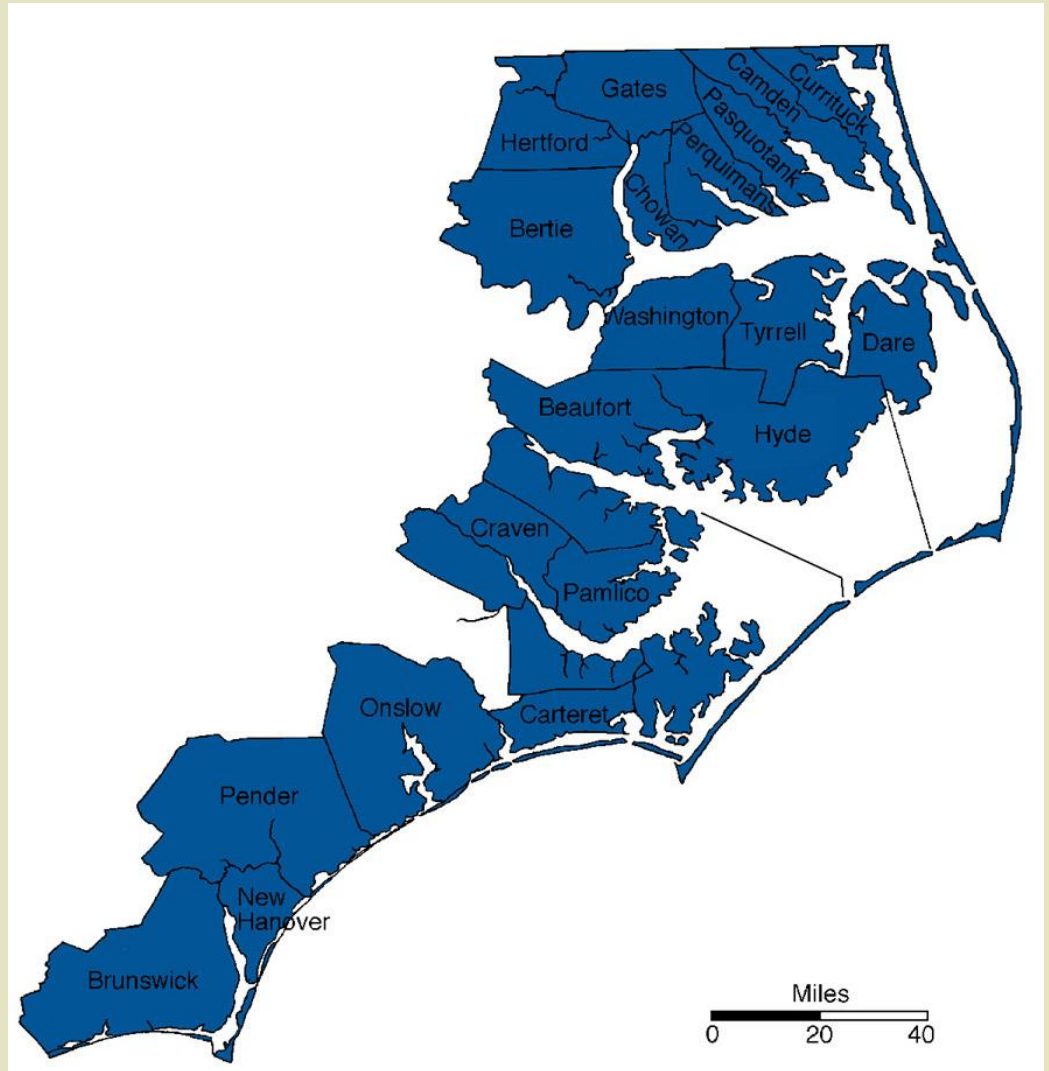
CAMA ...

Balances competing coastal pressures through development
permitting under the rules of the CRC.

When do I need a CAMA Permit??



CAMA Counties





Areas of Environmental Concern

Ocean Hazard Areas

Estuarine System

- Public trust waters and submerged lands, estuarine waters, coastal wetlands, and coastal (non-ocean) shorelines

Public Water Supplies

Natural and Cultural Resource Areas



CAMA Permits are required if you are undertaking development in an AEC:

Any activity in an AEC involving, requiring, consisting of the construction or enlargement of a structure; excavation; dredging; filling; dumping; removal of clay, silt, sand, gravel or minerals; bulkheading, driving of pilings; clearing or alteration of land as an adjunct of construction; alteration or removal of sand dunes; alteration of the shore, bank, or bottom of the Atlantic Ocean or any sound, bay, river, creek, stream, lake, or canal.



AECs in the Ocean Hazard System

- Ocean Erodible Area
- Inlet Hazard Areas
- Unvegetated Beach Area





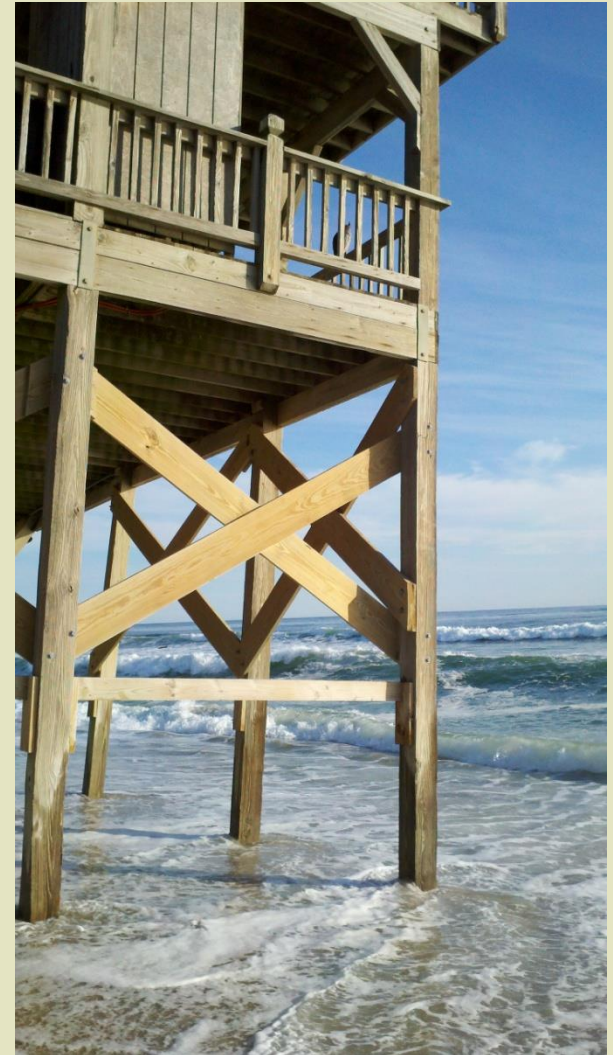
Ocean Erodeable Area:

How to determine the AEC: Long term annual erosion rate X 90.

-With a 2 ft. erosion rate the AEC extends 180 ft. from the FLSNV.

How to determine building setbacks: Multiply the long term annual erosion rate x 30.

-With a 2 ft. erosion the building setback would be 60 ft. from the FLSVN or the static line





**FIRST LINE OF
STABLE NATURAL
VEGETATION**

2005 2 22

“Oceanfront Construction Setbacks – 101”



Setback Line

Setback Measured from Vegetation

Vegetation Line

Rules: 15A NCAC 07H .0306(

Static Vegetation Lines: How do you get one?



Static Line

Setback
Line

**Definition of large-scale
beach fill project: *"greater
than 300,000 cubic yards"***



180 Ft. AEC ↑

Development
Line

60 ft.
setback

60 ft.
setback

Static Line

FLSNV

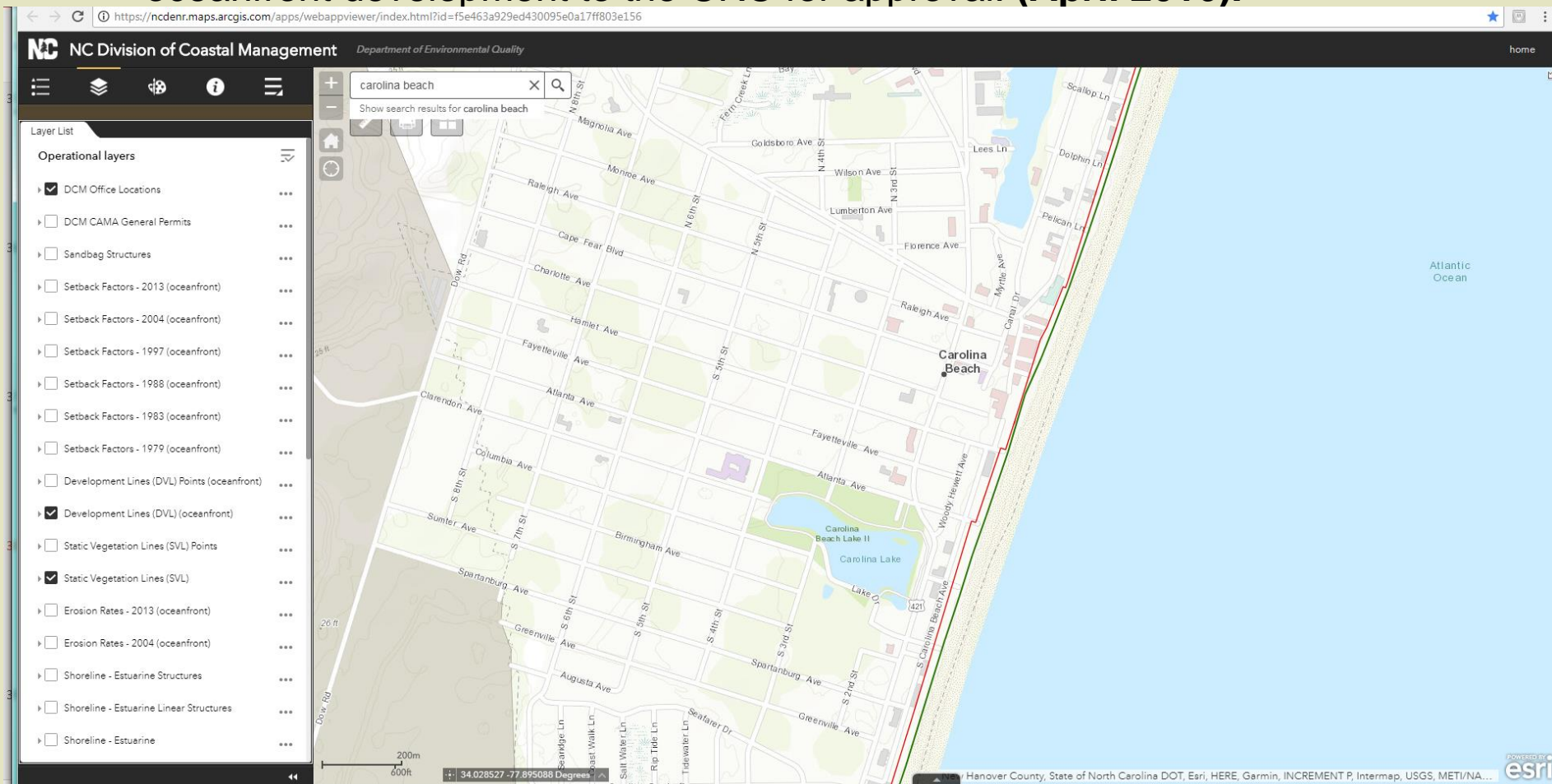
© 2016 Google

Google earth

33°54'52.94" N 78°09'48.78" W elev 0 ft eye alt 466 ft



- **Development Line:** FLSNV used for setbacks and town designates a line representing the seaward-most allowable location of oceanfront development to the CRC for approval. **(April 2016).**

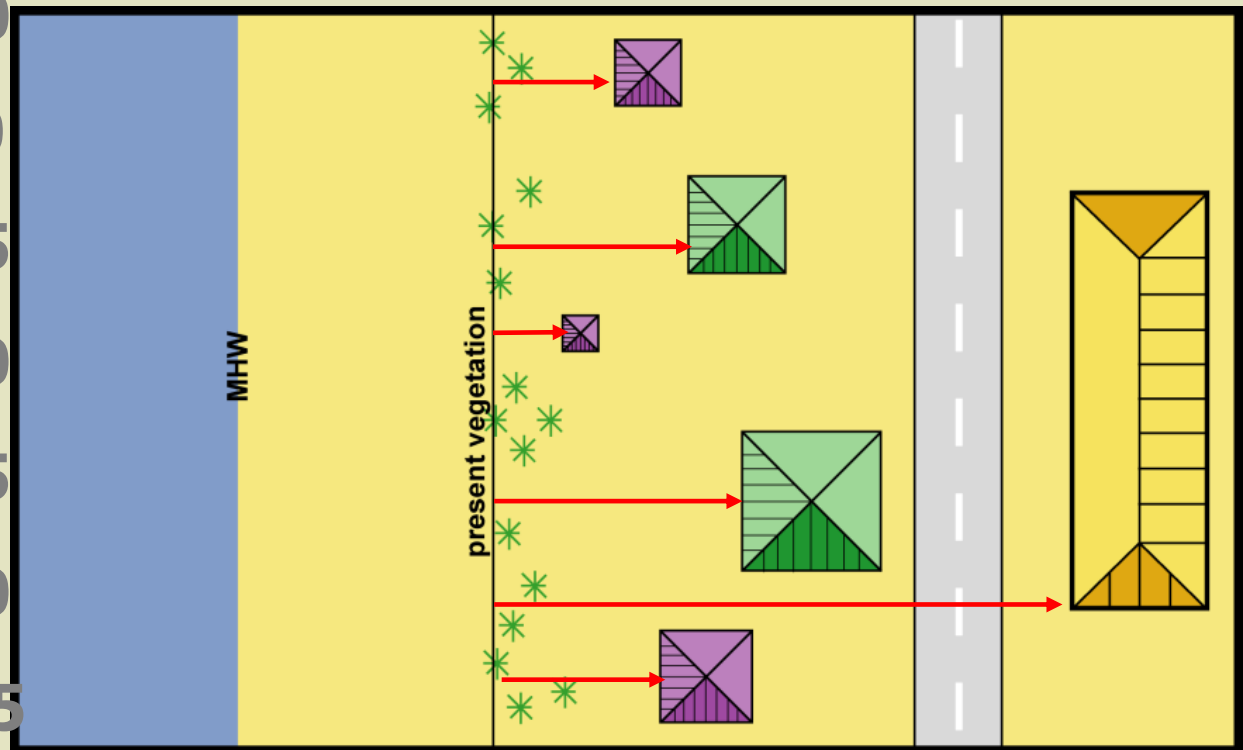


Graduated Oceanfront Construction Setbacks

Graduated erosion-based setbacks based on size of structures and long-term erosion rates

Minimum Setback Factor ("erosion rate") = 2 feet/year

- <5,000 sqft... x30
- 5-10K sqft.... x60
- 10-20K sqft... x65
- 20-40K sqft... x70
- 40-60K sqft... x75
- 60-80K sqft... x80
- 80-100K sqft . x85
- >100K sqft... x90



15A NCAC 07H .0306(a)(5) effective: August 11, 2011



Total Floor Area

- (A) The total sq. ft. area of heated or air-conditioned space;**
- (B) The total sq. ft. of parking elevated above ground level; and**
- (C) The total sq. ft. of non-heated or non-air-conditioned areas elevated above ground level, excluding attic space that is not designated to be load bearing.**

***Decks, roof covered porches and walkways shall not be included in total floor area unless they are enclosed with material other than screen mesh or are being converted into an enclosed space.**



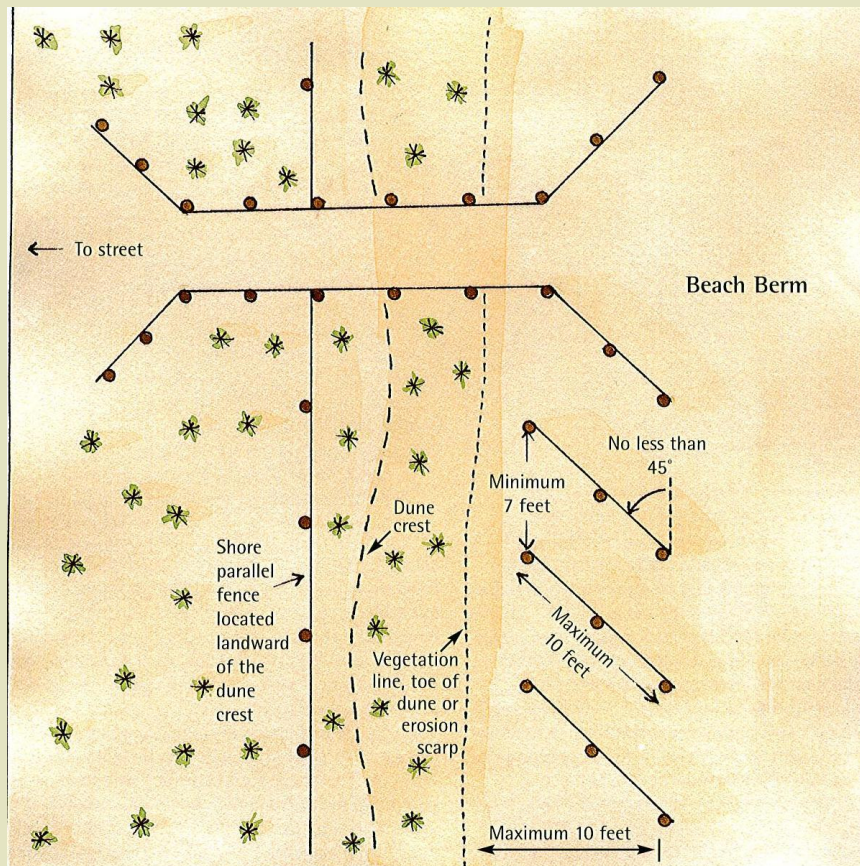
Exceptions to the Setback

- Campsites
- Parking areas w/clay, packed sand, gravel
- Elevated decks- 500 sf (structurally detached)
- Beach accessways
- Unenclosed, uninhabitable gazebos- up to 200sf
- Single story sheds <200sf
- Temp. amusement stands
- Sand fencing
- Swimming pools



Sandfencing

Recommended dune plant species



- **Sea Oats** (*Uniola paniculata*)
- **American Beachgrass** (*Ammophila breviligulata*)
- **Bitter Panicum** (*Panicum amarum*)
- **Saltmeadow Hay** (*Spartina patens*)



Sandbags

- If community is actively pursuing inlet relocation or stabilization project, sandbags may remain in place for up to 8 years from date of approval.
- Bags can be used to protect septic systems, but not swimming pools, decks or gazebos.

North Topsail Beach



Shallotte Inlet



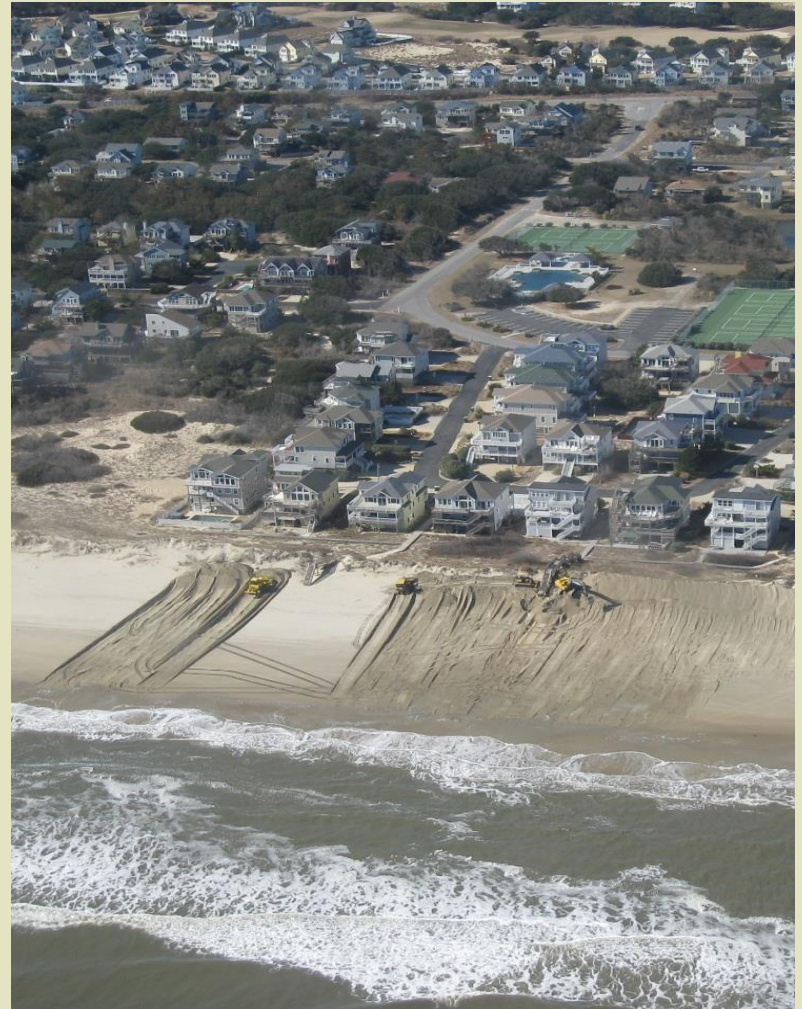
Tubbs Inlet





Bulldozing

- GP 1800 (15A NCAC 7H.1800) allows beach bulldozing landward of the MHW or MLW mark in the Ocean Hazard AEC, but does not apply to IHAs.
- One time push to a depth of 1 ft.
- No work between April 1 and November 15 due to the sea turtle moratorium.





Inlet Hazard Areas (IHA)

Areas especially vulnerable to erosion and flooding due to proximity to ocean inlets

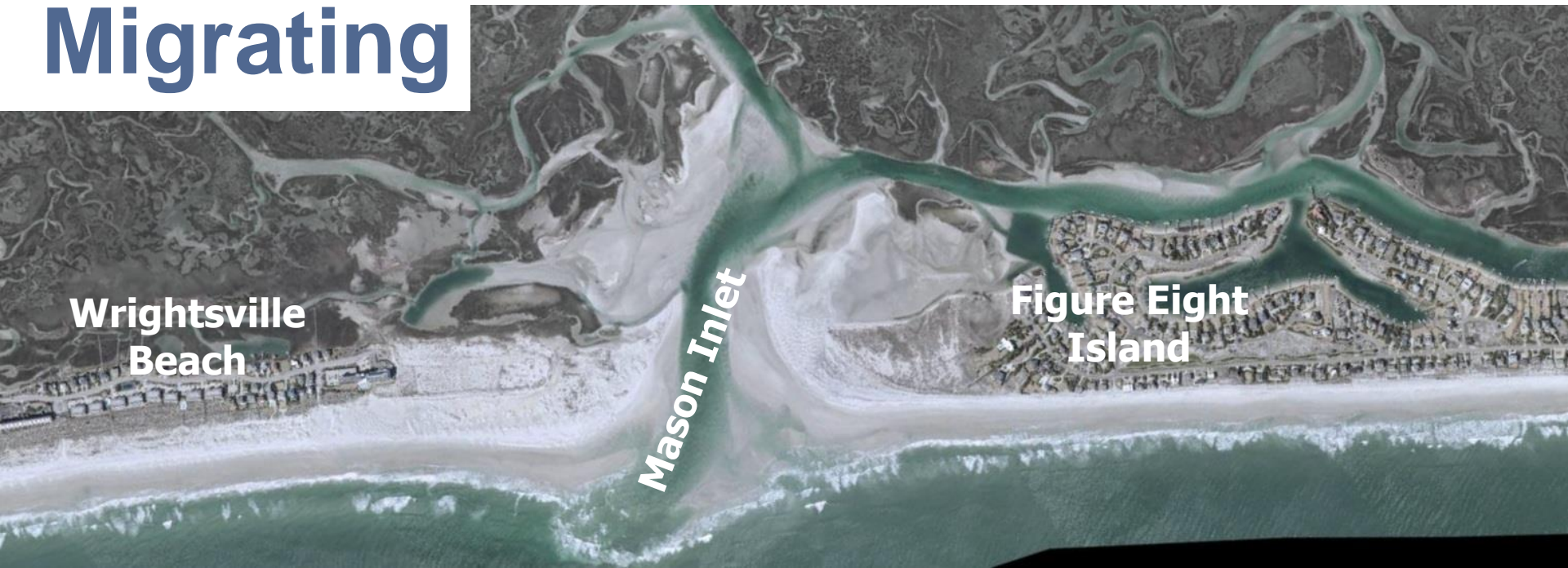
- Allows no more than one commercial or residential unit per 15,000 sq. ft. of land on lots subdivided or created after July 23, 1981.
- Only residential structures of four units or less and non-residential structures of less than 5,000 sq. ft. of total floor area shall be allowed.



Oscillating



Migrating



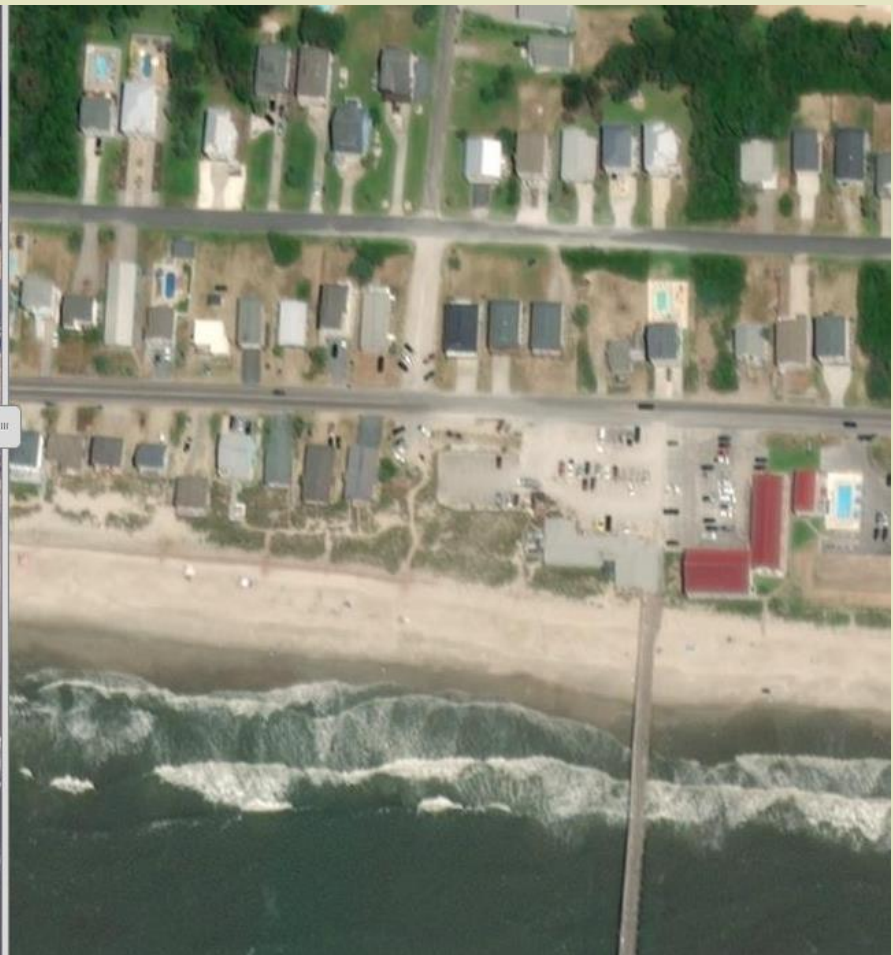
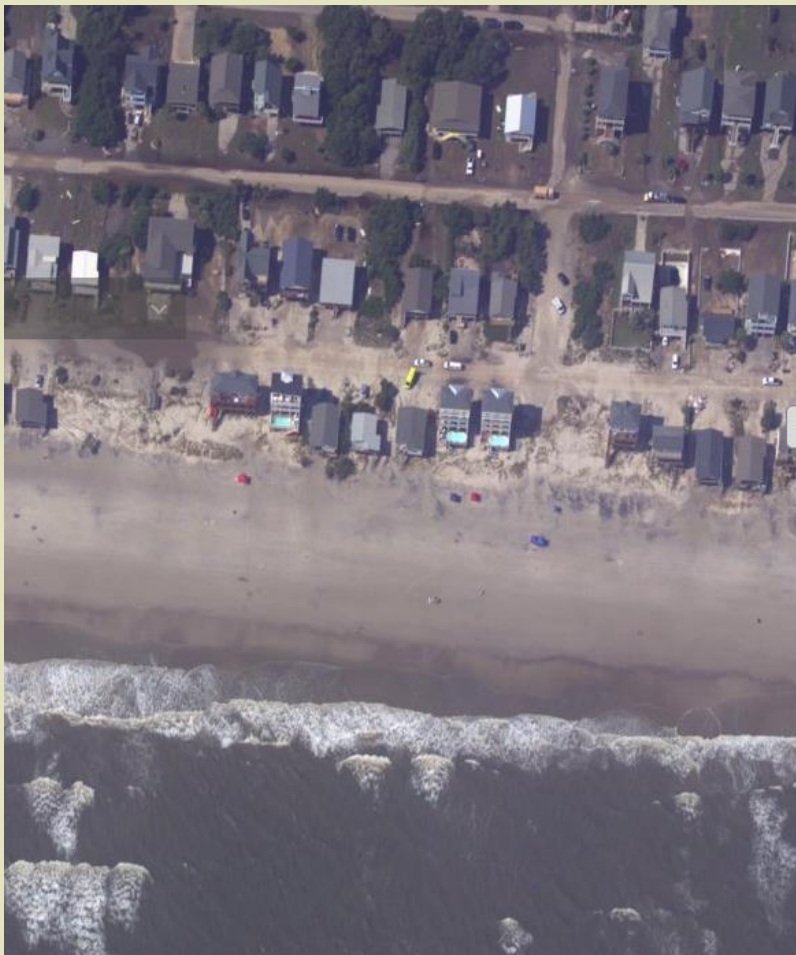


Question:

“I have this property under contract and I need to know if it is re-buildable”



Vegetation lines can change overnight...





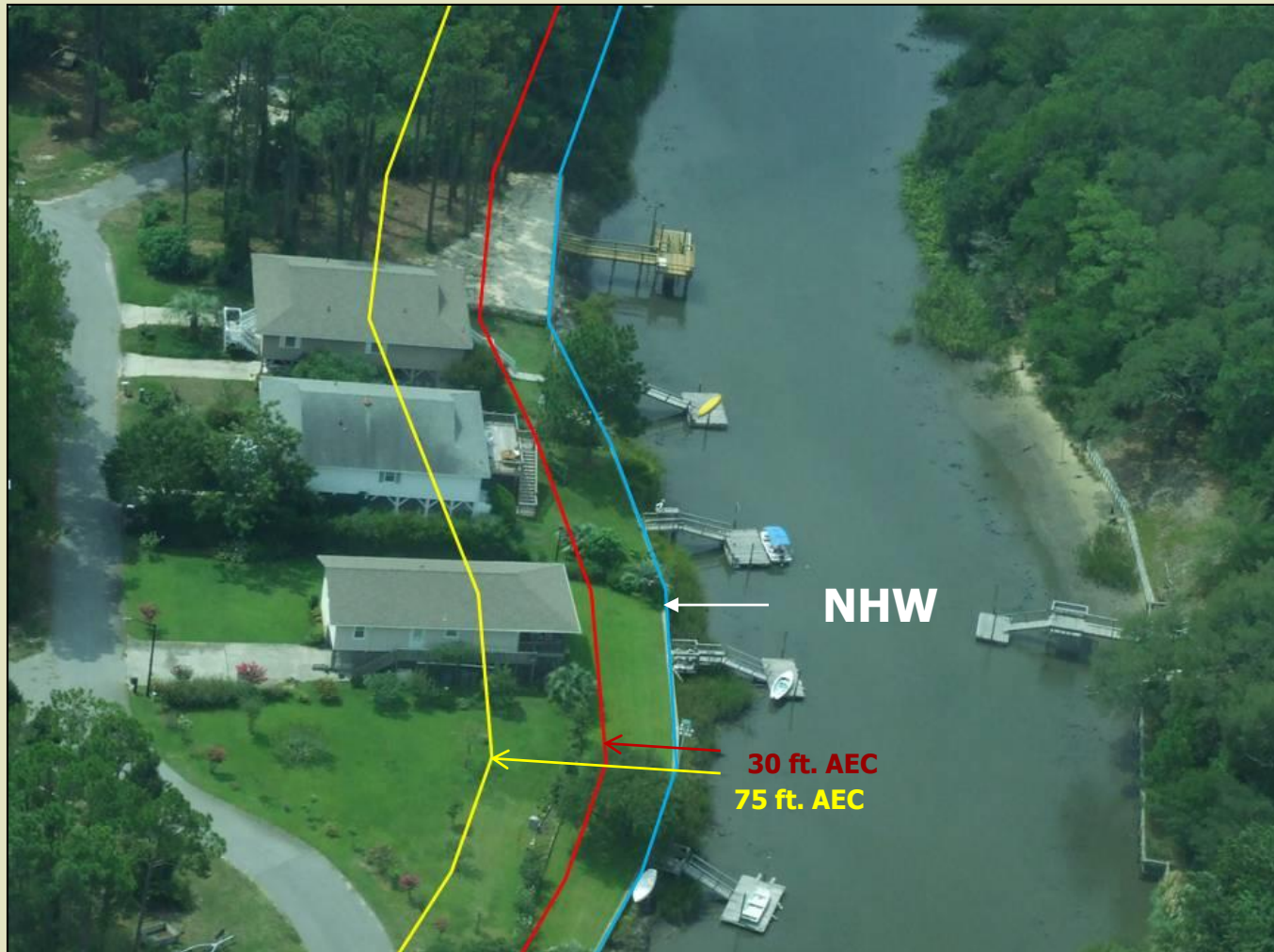
AECs in the Estuarine System

- Coastal Shoreline (above NHW)
 - ✓ Estuarine Shoreline
 - ✓ Public Trust Shoreline
- Coastal Wetlands
- Public Trust Areas
- Estuarine Waters





Estuarine vs. Public Trust Shoreline





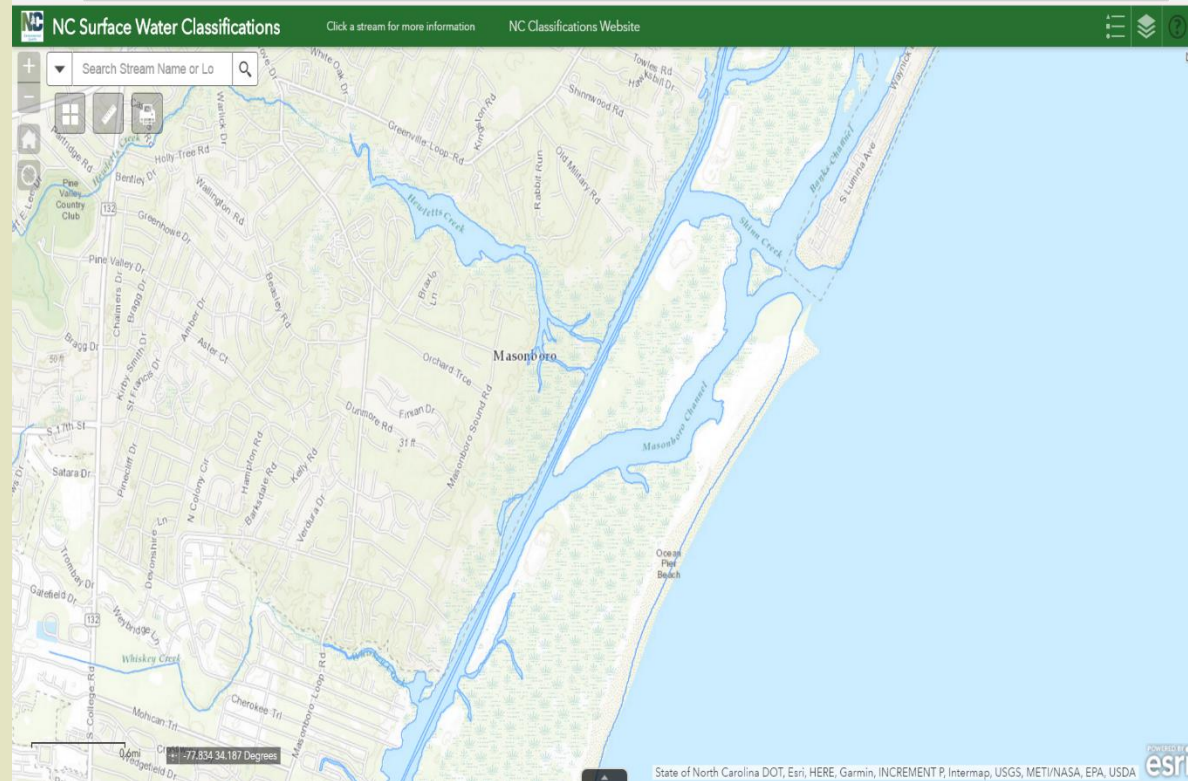
Water Classifications

**Estuarine Shoreline
AEC extends 75 ft. from
NHW**

**-Max Allowed 30%
impervious surface**

**ORW Estuarine
Shoreline AEC
extends 575 ft. from
NHW**

**-Max Allowed 25% impervious
surface**





ORW-Outstanding Resource Waters



NC Surface Water Classifications

[Click a stream for more information](#)

[NC Classifications Website](#)



Search Stream Name or Lo



Masonboro

Surface Water Classifications:

Stream Index: 18-87-25.7

Stream Name: Masonboro Sound ORW Area

Description: All waters between the Barrier Islands and the mainland from a line running from a point on the mainland directly across the Intracoastal Waterway from the southwest mouth of Shinn Creek to the southern shore of Masonboro Inlet and a line running from th

Classification: SA;ORW

Date of Class.: December 31, 1989

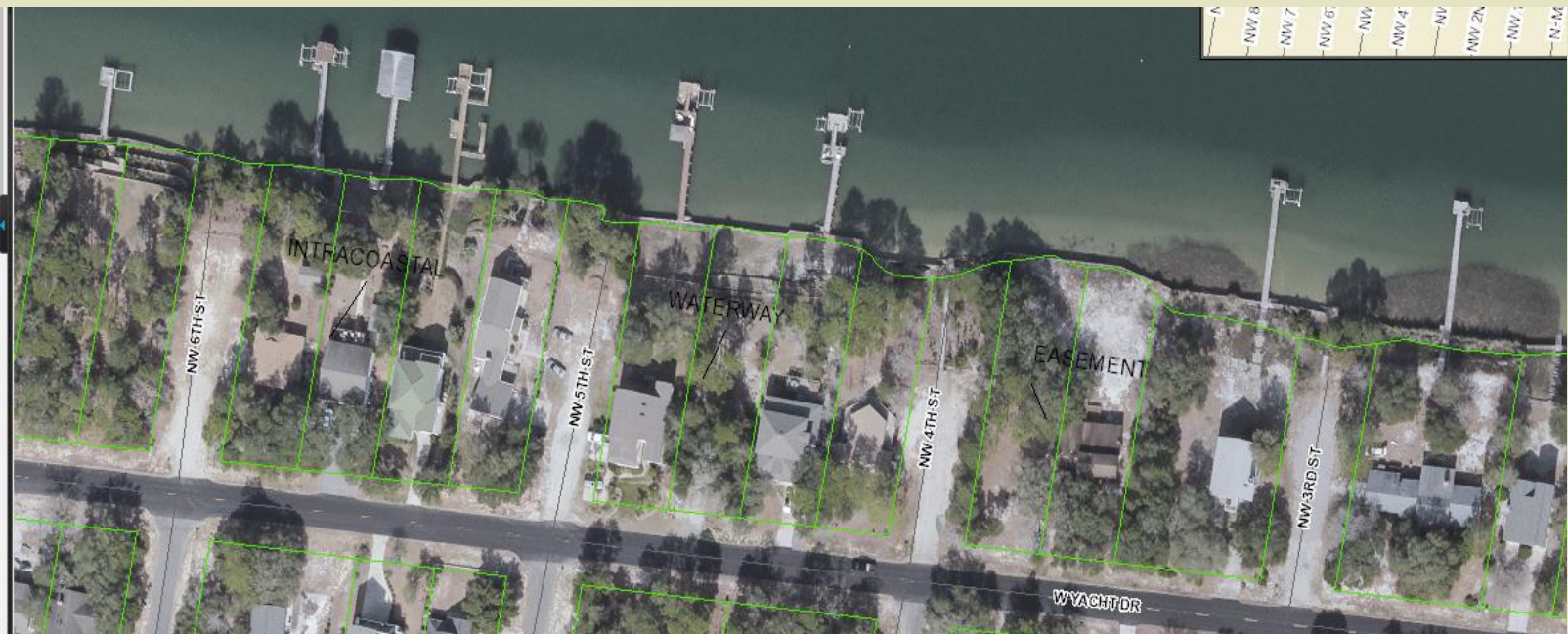
[Zoom to](#)



Property along the AIWW may have **USACE Easements**

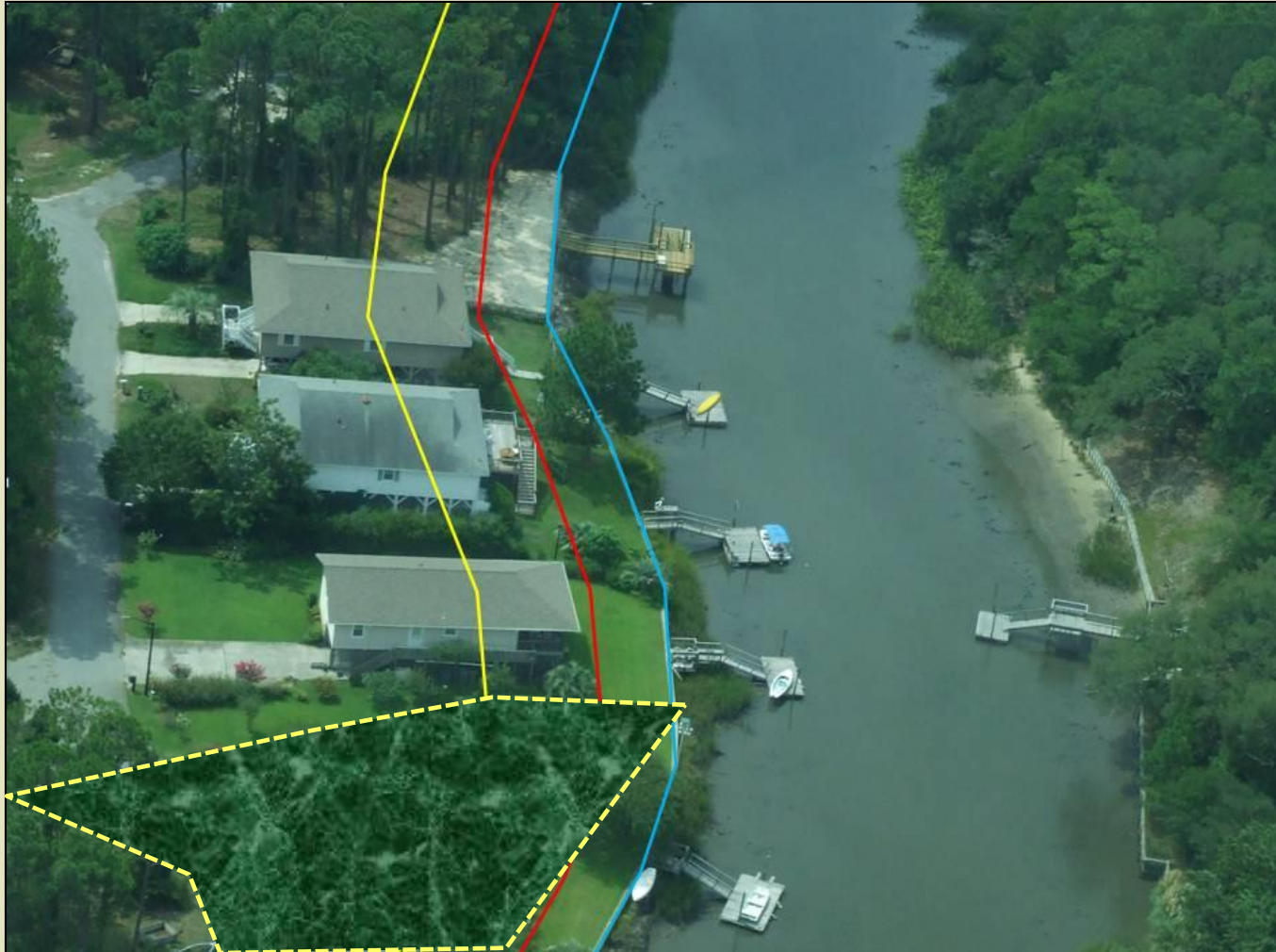
~ No development in these areas without USACE Consent.
Contact USACE Real Estate Office.

Contact: John Manning (USACE) 910 251-4474





What about Coastal and Section 404 Wetlands?





Coastal Wetland species



Cat-tails



Sawgrass



Bulrush



Cord Grass



Salt Grass



Salt Meadow Grass

Division of Coastal Management



Glasswort



Sea Lavender



Salt Reed Grass

VS

INVASIVE





Montgomery Slough- State Owned

- Cannot span state owned marshland for water access without State Property Office Approval.

Contact: Joy Weyman 919 807-4661



PNA- Primary Nursery Areas

Proposed docking
facilities in these areas
must have at least 24 “
of water at NLW





Piers and Bulkheads

- **Linear ft. of shoreline x 8 =** amount of platform allowed over water
- **Floating boatlifts** are not counted as boatslips but count towards allowed platform area, must meet riparian setbacks and depths for PNA.
- **Drip lines** are used for calculations for water dependent development.
- **Bulkheads/riprap** for erosion control at NHW line and landward of all wetlands.





Permitting



CAMA Permits

- 3 categories:
 - **Minor permits** issued by local governments consistent w/CRC-established standards **for work above NHW**. Approx. 29% of all CAMA permits.
 - **General permits** issued by DCM field staff - streamlined for routine projects (docks, piers, bulkheads). Approx. 65% of all CAMA permits
 - **Major permit** applications issued by Morehead City office after review by 10 state & 4 fed. Agencies. Approx. 6% of all CAMA permits

Division of Coastal Management



AEC HAZARD NOTICE

Project Is In An: _____ Ocean Erodible Area _____ High Hazard Flood Area _____ Inlet Hazard Area

Property Owner: _____

Property Address: _____

Date Lot Was Platted: _____

This notice is intended to make you, the applicant, aware of the special risks and conditions associated with development in this area, which is subject to natural hazards such as storms, erosion and currents. The rules of the Coastal Resources Commission require that you receive an AEC Hazard Notice and acknowledge that notice in writing before a permit for development can be issued.

The Commission's rules on building standards, oceanfront setbacks and dune alterations are designed to minimize, but not eliminate, property loss from hazards. By granting permits, the Coastal Resources Commission does not guarantee the safety of the development and assumes no liability for future damage to the development. Permits issued in the Ocean Hazard Area of Environmental Concern include the condition that structures be relocated or dismantled if they become imminently threatened by changes in shoreline configuration. The structure(s) must be relocated or dismantled within two (2) years of becoming imminently threatened, and in any case upon its collapse or subsidence.

The best available information, as accepted by the Coastal Resources Commission, indicates that the annual long-term average ocean erosion rate for the area where your property is located is _____ feet per year.

The rate was established by careful analysis of aerial photographs of the coastline taken over the past 50 years.

Studies also indicate that the shoreline could move as much as _____ feet landward in a major storm.

The flood waters in a major storm are predicted to be about _____ feet deep in this area.

Preferred oceanfront protection measures are beach nourishment and relocation of threatened structures. Hard erosion control structures such as bulkheads, seawalls, revetments, groins, jetties and breakwaters are prohibited. Temporary sand bags may be authorized under certain conditions.

The applicant must acknowledge this information and requirements by signing this notice in the space below. Without the proper signature, the application will not be complete.

SPECIAL NOTE: This hazard notice is required for development in areas subject to sudden and massive storms and erosion. Permits issued for development in this area expire on December 31 of the third year following the year in which the permit was issued. Shortly before work begins on the project site, the Local Permit Officer must be contacted to determine the vegetation line and setback distance at your site. If the property has seen little change since the time of permit issuance, and the proposed development can still meet the setback requirement, the LPO will inform you that you may begin work. Substantial progress on the project must be made within 60 days of this setback determination, or the setback must be remeasured. Also, the occurrence of a major shoreline change as the result of a storm within the 60-day period will necessitate remeasurement of the setback. It is important that you check with the LPO before the permit expires for official approval to continue the work after the permit has expired. Generally, if foundation pilings have been placed and substantial progress is continuing, permit renewal can be authorized. It is unlawful to continue work after permit expiration.

For more information, contact:

Local Permit Officer: _____

Address: _____

Locality: _____

Phone Number: _____

BEFORE YOU BUILD

Setting Back for Safety: A Guide to Wise Development Along the Oceanfront

When you build along the oceanfront, you take a calculated risk. Natural forces of water and wind collide with tons of force, even on calm days.

Man-made structures cannot be guaranteed to survive the force of a hurricane. Long-term erosion (or barrier island migration) may take from two to ten feet of the beach each year, and, sooner or later, will threaten oceanfront structures. These are the facts of life for oceanfront property owners.

The Coastal Resources Commission (CRC) has adopted rules for building along the oceanfront. The rules are intended to avoid an unreasonable risk to life and property, and to limit public and private losses from storm and long-term erosion. These rules lessen but do not eliminate the element of risk in oceanfront development.

As you consider building along the oceanfront, the CRC wants you to understand the rules and the risks. With this knowledge, you can make a more informed decision about where and how to build in the coastal area.

The Rules

When you build along the oceanfront, coastal management rules require that the structure be sited to fit safely into the beach environment.

Structures along the oceanfront, less than 5,000 square feet in size, must be behind the frontal dune, landward of the crest of the primary dune, and set back from the first line of stable natural vegetation a distance equal to 30 times the annual erosion rate (a minimum of 60 feet). The setback calculation increases as the size of the structure increases [ISA, NCAC 7H.0306(a)(2)]. For example: A structure between 5,000 and 10,000 square feet would require a setback from the first line of stable, natural vegetation to a distance equal to 60 times the annual erosion rate (a minimum of 120 feet). The graduated setback continues to increase through structure sizes greater than 100,000 square feet.

The Reasons

The beachfront is an ever-changing landform. The beach and the dunes are natural "shock absorbers," taking the beating of the wind and waves and protection the inland areas. By incorporating building setbacks into the regulations, you have a good chance of enjoying the full life of the structure. At first, it seems very inviting to build your dream house as close to the beach as possible, but in five years you could find the dream has become a nightmare as high tides and storm tides threaten your investment.

The Exception

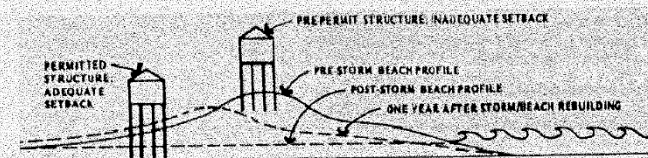
The Coastal Resources Commission recognized that these rules, initially passed in June 1979, might prove a hardship for some property owners. Therefore, they established an exception for lots that cannot meet the setback requirement. The exception allows buildings in front of the current setback, if the following conditions apply:

- (1) the lot must have been platted as of June 1, 1979, and is not capable of being enlarged by combining with adjoining land under the same ownership;
- (2) development must be constructed as far back on the property as possible and in no case less than 60 feet landward of the vegetation line;
- (3) no development can take place on the frontal dune;
- (4) special construction standards on piling depth and square footage must be met; and
- (5) all other CAMA, state and local regulations must be met.

The exception is not available in the Inlet Hazard Area.

To determine eligibility for the exception the Local Permit Officer will make these measurements and observations:

- _____ required setback from vegetation line
- _____ exception setback (maximum feasible)
- _____ rear property line setback
- _____ max. allowable square footage on lowest floor
- _____ piling length needed to extend 4 feet below MSL



After the storm, the house on the dune will be gone. The other house has a much better chance of survival.

Applicant Signature

Date

Revised 2/87



“Umbrella Permitting”

Federal Agencies	State Agencies
U.S. Army Corps of Engineers	Division of Water Quality
U.S. Fish and Wildlife Service	Division of Marine Fisheries
Environmental Protection Agency	Division of Transportation
National Marine Fisheries Service	Division of Land Resources
	Wildlife Resources Commission
	Department of Cultural Resources
	Division of Public Health
	State Property Office
+ Local Government	Community Assistance



Question – What is a CAMA Line??

- Normal or Mean High Water Line
- Coastal Wetland Line
- 30 ft. buffer Line
- 75 ft. AEC Line
- Building Setback



When do I need a CAMA Permit??

- 1. Is the proposed project in one of the 20 coastal counties???**
- 2. Does the proposed project fit the definition of development?**
- 3. Is the proposed project in an AEC?**



Maintenance and Repair

Maintenance and Repair : If proposed work is less than 50% of the total structure or project a Certificate of Exemption from requiring a CAMA permit may be issued. (Does not alleviate the necessity of obtaining other state, federal or local authorization).

****All work must be done within the original project footprint.**



Wilmington Regional Office DCM

- Tara MacPherson – District Manager**
Permitting - BHI, Caswell Beach and Southport
(910) 796-7266
- Jason Dail – Pender County and Topsail Island (910) 796-7221**
- Katharine Elks– Northern NHC Co (910) 796-7424**
- Patrick Amico - Southern NHC Co (910) 796-7423**
- Ben Brink- E. Brunswick County/ Lockwood Folly River,
Oak Island, St. James, Supply & Holden Beach
(910) 796-7425**
- Brendan Brock– Ocean Isle Beach, Shallotte, Shallotte River &
Sunset Beach (910) 796-7270**



Questions??