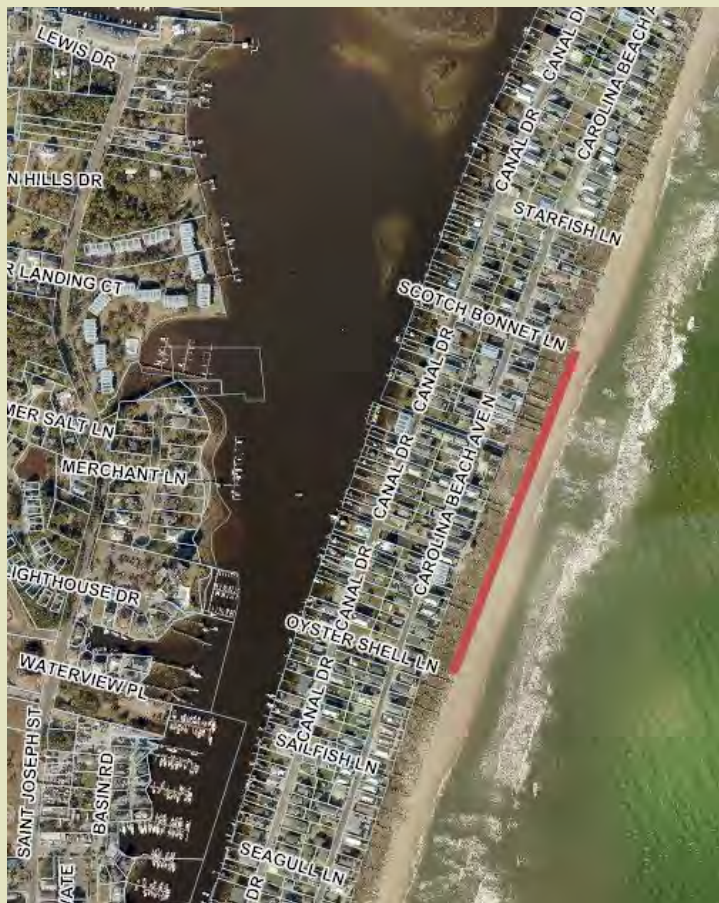




CAMA 101



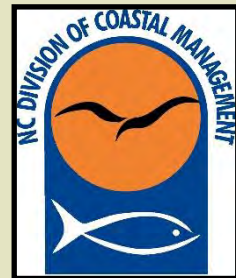
Jonathan Howell
Regulatory Section Chief
NC DCM





What Is CAMA?

- The Coastal Area Management Act (1974), or **CAMA**, is the state law that balances development with environmental protection along North Carolina's coast.
- The CAMA established Areas of Environmental Concern (**AECs**), areas that are subject to natural hazards or have environmental, social, economic or aesthetic significance.





Division of Coastal Management (DCM)

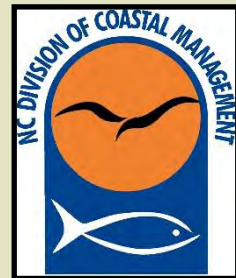
The DCM carries out:

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



DCM Mission

Protect, conserve and manage North Carolina's coastal resources through an integrated program of planning, permitting, education and research.





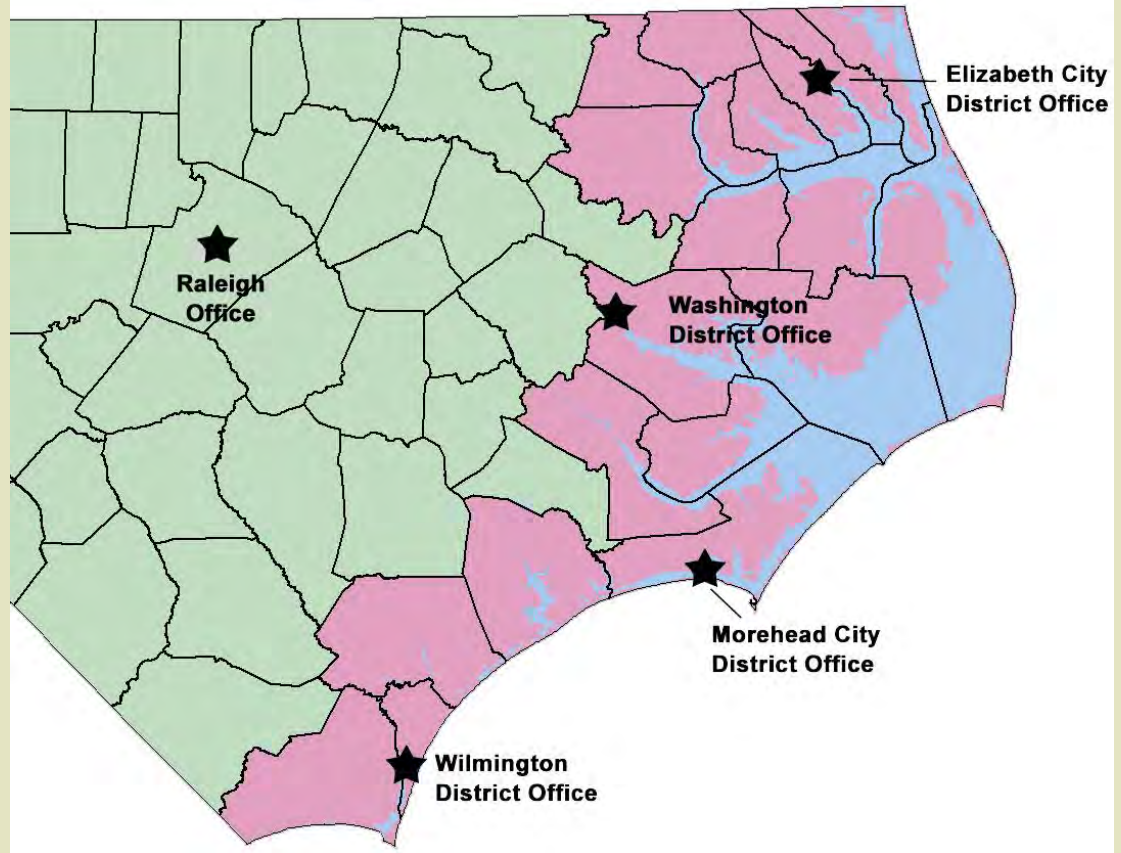
North Carolina Coast

- Covers 320 miles of ocean beaches and more than 12,000 miles of shoreline
- Encompasses 2.3 million acres. Albemarle-Pamlico estuarine system (2nd largest estuarine system in the nation & 3rd largest in the world)
- 5.1 million acres of wetlands
- More and more people are moving to the Coastal Areas.



Field Offices

- **DCM Offices:**
 - Elizabeth City
 - Washington
 - Morehead City
 - Wilmington





Division action items:

- Permitting and Enforcement
- Federal Consistency
- Land Use Planning
- North Carolina Coastal Reserve
- Waterfront Access Sites





Coastal Land Use Planning

- CAMA requires each of the 20 coastal counties to have a local land-use plan.
- Each land-use plan includes policies that address growth issues such as **protection of productive resources** (*i.e.*, farmland, forests, fisheries), **desired types of economic development**, **natural resource protection** and **the reduction of storm hazards**.



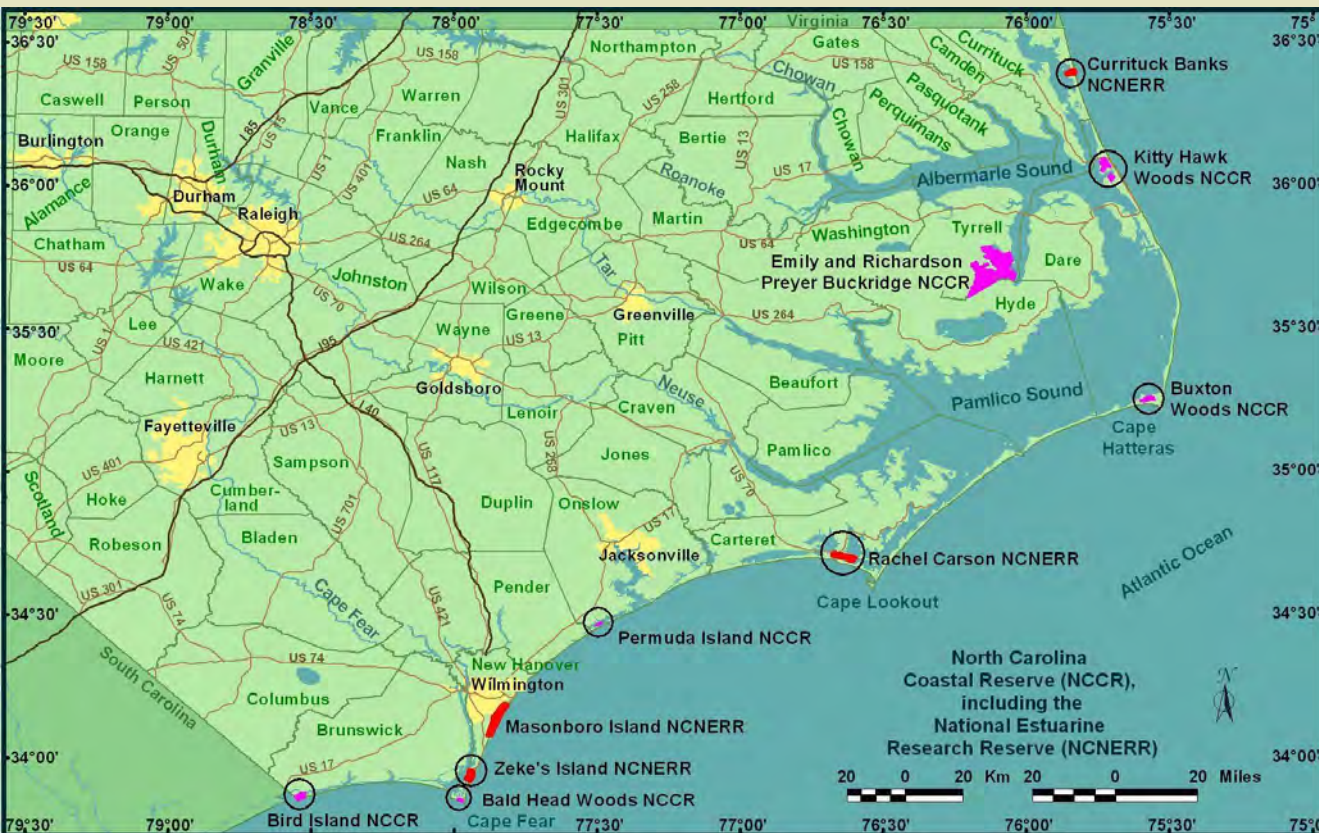
Coastal Reserve Program



- Program sets aside undeveloped coastal lands and waters for research, education and public use.
- 10 sites (4 NERR/6 state)
- Over 40,000 acres



Coastal Reserve Sites



- **Currituck Banks**
- **Kitty Hawk Woods**
- **Emily & Richardson Preyer Buckridge**
- **Buxton Woods**
- **Rachel Carson**
- **Permuda Island**
- **Masonboro Island**
- **Zeke's Island**
- **Bald Head Woods**
- **Bird Island**

● (NERR)



Permitting



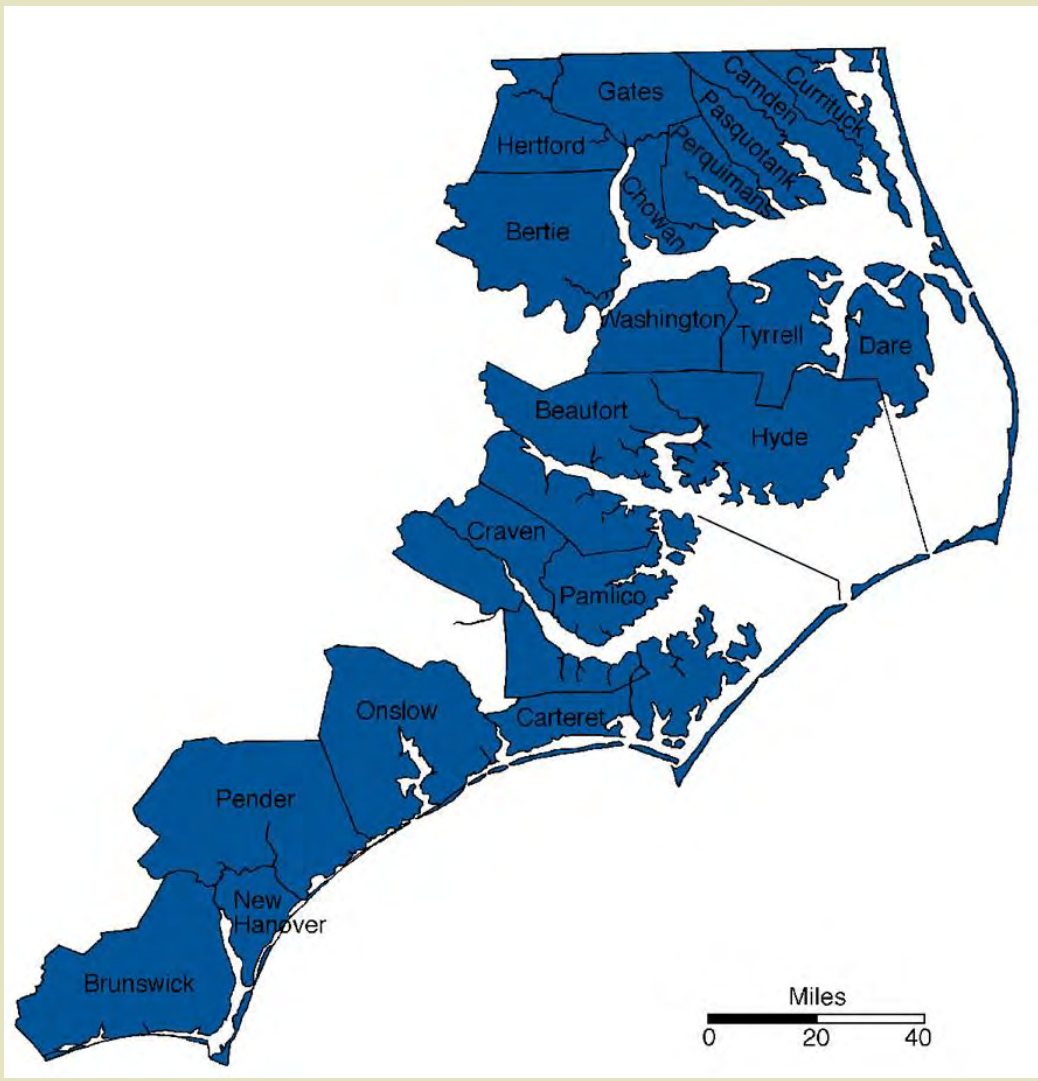
CAMA ...

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

When do I need a CAMA Permit??



CAMA Counties





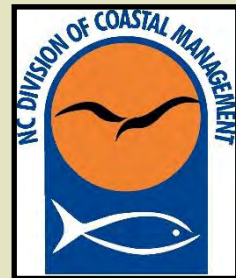
CAMA Permits are required if you are undertaking development in an AEC:

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.



Areas of Environmental Concern (AECs)

- **Estuarine System Areas**
- Ocean Hazard Areas
- Public Water Supplies
- Natural and Cultural Resource Areas



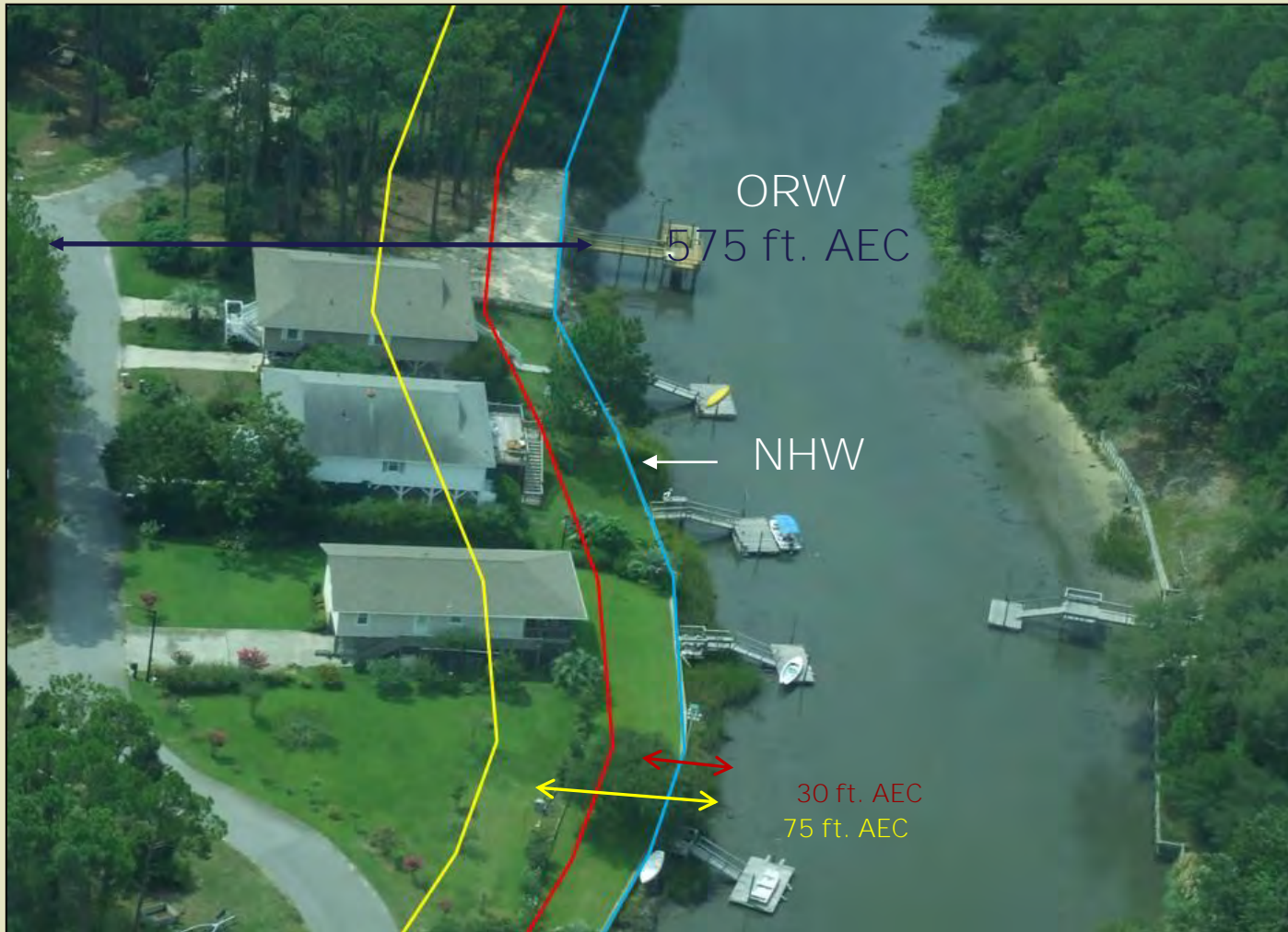


AECs in the Estuarine System

- **Coastal Shoreline**
- Coastal Wetlands
- Estuarine Waters
- Public Trust Areas



Division of Coastal Management

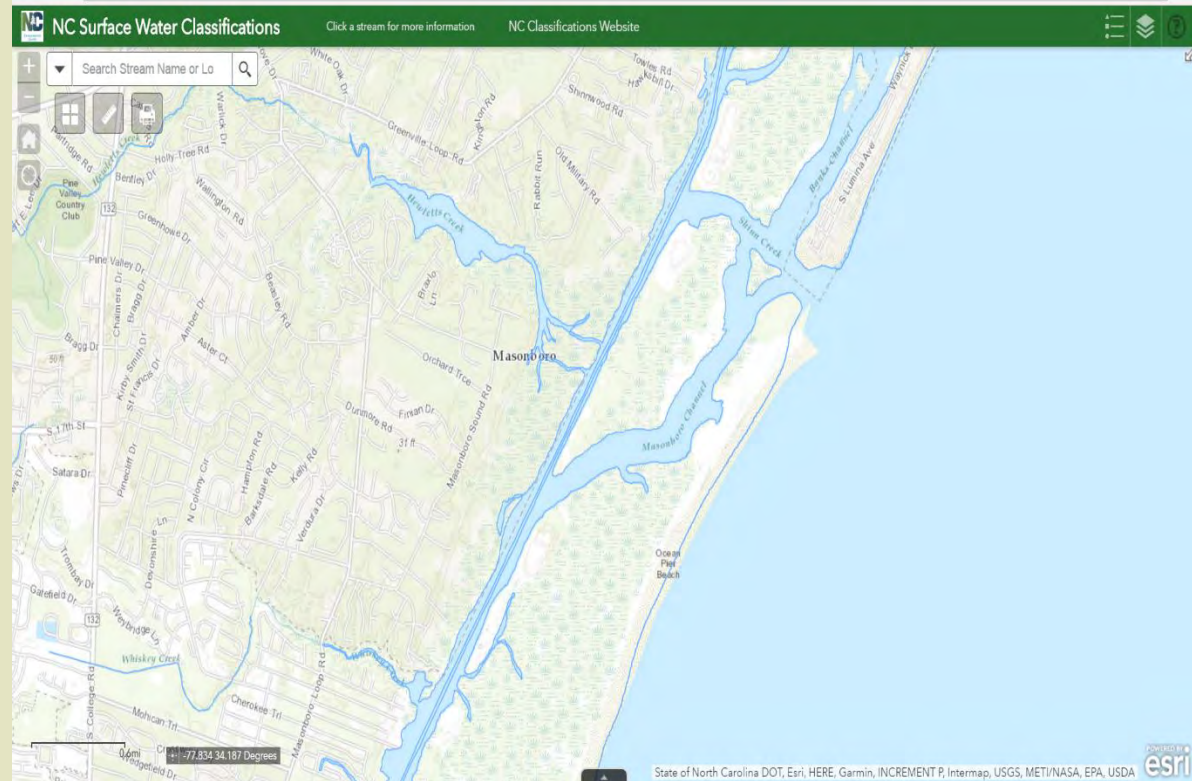




Water Classifications

Estuarine Shoreline AEC
extends 75 ft. from NHW

ORW Estuarine Shoreline
AEC extends 575 ft. from
NHW



Google: NC Surface Water Classifications and bookmark this page!



Coastal Shoreline Rules Basic Standards

- Less than **30% impervious coverage** along Coastal Shoreline AECs, innovative stormwater systems acceptable (75' AEC)
- Less than **25% impervious coverage** along ORW coastal shoreline AECs (575' AEC)

**All plans should indicate the impervious coverage within the AEC and show the calculations on the drawing.



What about Coastal and Section 404 Wetlands?





What about Coastal and Section 404 Wetlands?





Coastal Wetlands

- **Presence of at least one of the ten species listed in 7H.0205.**
- **Subject to regular or irregular tidal flooding**





Why is Coastal Marsh Important?

- first line of defense for estuarine shoreline erosion
- waterfowl and wildlife habitat
- nutrient and sediment traps for organic/inorganic
- slows water and allows settling of particles
- pollutants and nutrients uptake
- Nursery area for juvenile fish and shellfish



AECs in the Estuarine System

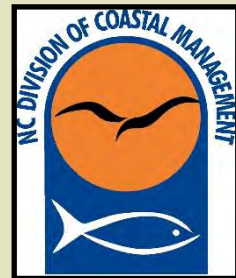
- Coastal Shoreline
- Coastal Wetlands
- **Estuarine Waters**
- **Public Trust Areas**





Areas of Environmental Concern (AECs)

- The Estuarine and Ocean System
- **The Ocean Hazard Areas**
- Public Water Supplies
- Natural and Cultural Resource Areas





AECs in the Ocean Hazard System

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



Post – Hurricane Florence
Surf City, NC
September 2018



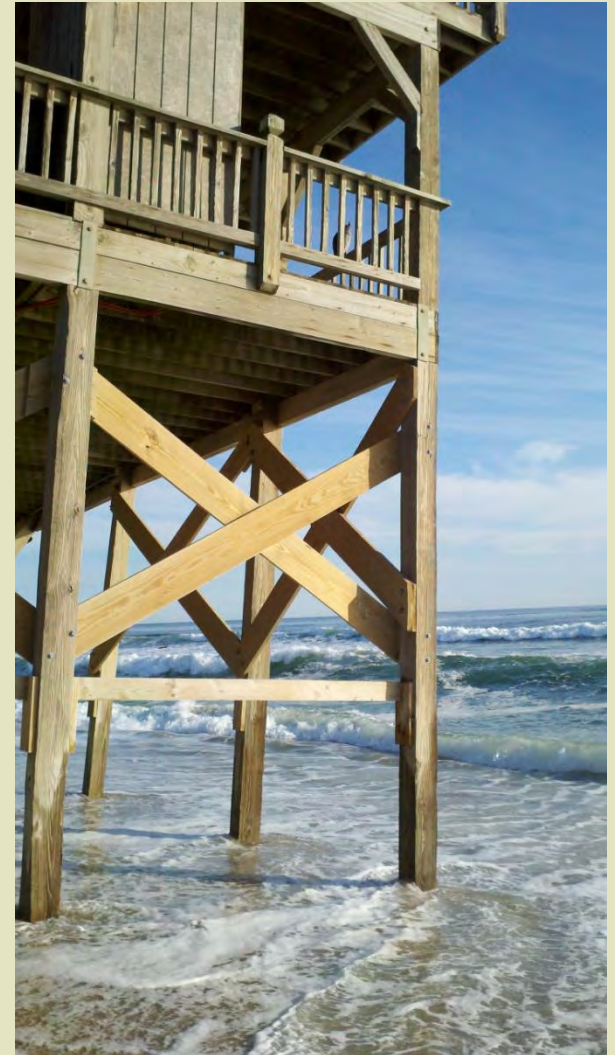
Ocean Hazard Area

Ocean Erodeable Area

- Long term annual erosion rate
X 90

- Example: 2 ft. erosion rate
 $2 \times 90 = 180$

**AEC extends 180 ft. from the
First Line of Stable & Natural
Vegetation (FLSNV)





DCM MAP VIEWER

NC DCM setback and erosion rates are
online!

The screenshot displays the NC Division of Coastal Management Map Viewer interface. At the top left, the logo for the Department of Environmental Quality (DEQ) and the text "NC Division of Coastal Management" are visible. A search bar contains the text "caswell beach nc". Below the search bar, a "Layer List" panel is open, showing several layers with checkboxes: "Setback Factors - 2020 (oceanfront)" (checked), "Setback Factors - 2013 (oceanfront)", "Setback Factors - 2004 (oceanfront)", "Setback Factors - 1997 (oceanfront)", "Setback Factors - 1988 (oceanfront)", "Setback Factors - 1983 (oceanfront)", "Setback Factors - 1979 (oceanfront)", "Development Lines (DVL) Points (oceanfront)", "Development Lines (DVL) (oceanfront)", "Measurement Line", and "Static Vegetation Lines (SVL) Points". The main map area shows an aerial view of a residential area with a green line indicating a setback. A scale bar at the bottom indicates 60m and 200ft. The coordinates 33.890240 -78.030670 Degrees are displayed at the bottom center. The interface is powered by Esri, with logos for Maxar and Microsoft also visible.

DCM
Division of
Coastal Management





FIRST LINE OF
STABLE NATURAL
VEGETATION

2005 2 22



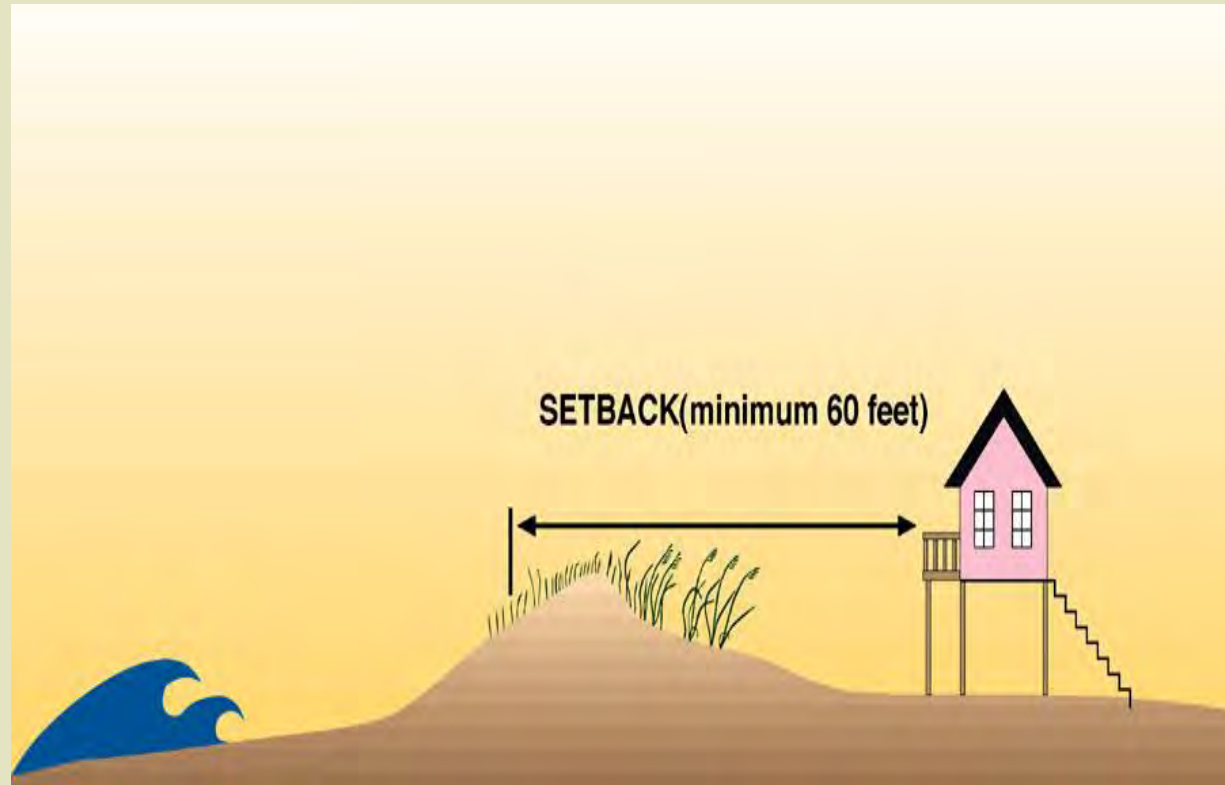
Ocean Erodible Area Setbacks

- Setbacks are based on erosion rates and the size of a structure.

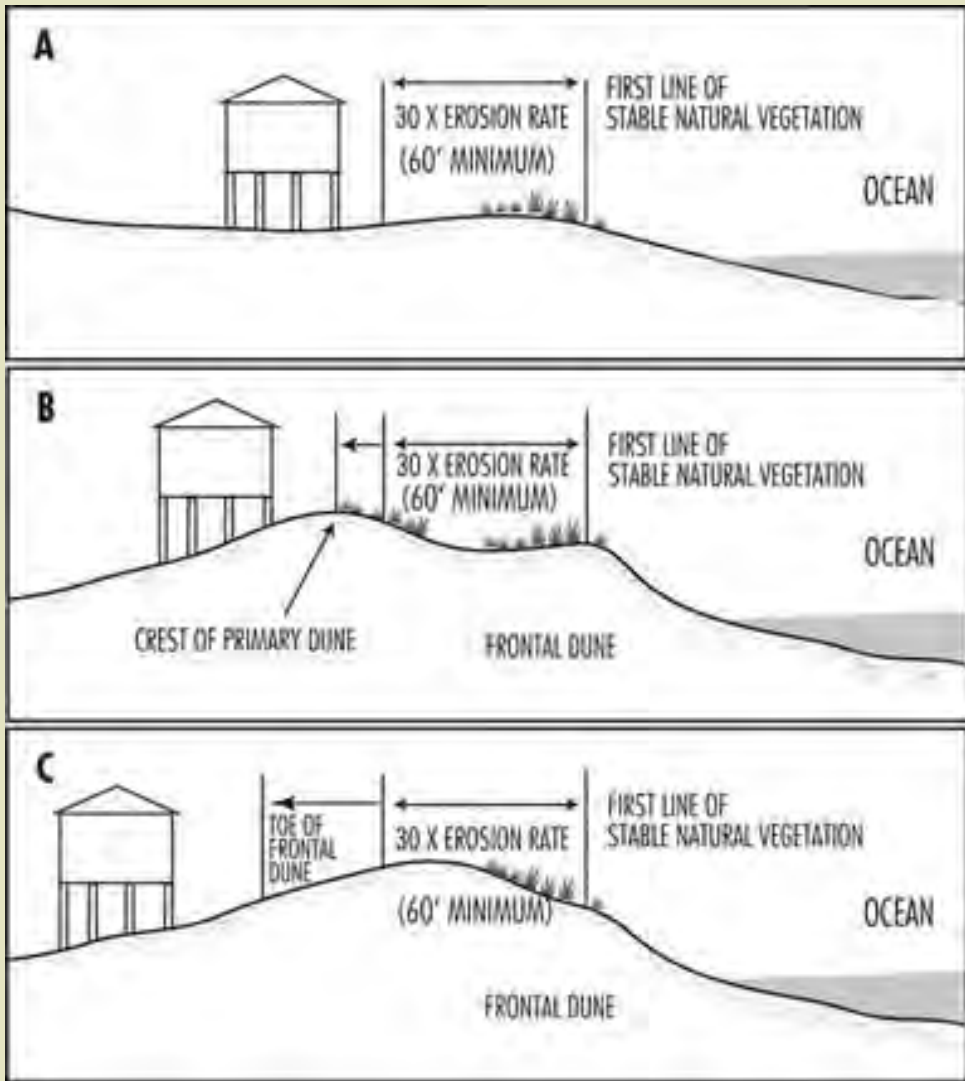
Example:

Erosion rate is 2 ft. /
yr. x 30 = 60 ft.
building setback for
a home <5000 sq. ft.

- Pulled from FLSNV
or pre-project
vegetation line!



Division of Coastal Management



Primary Dune — First mound of sand located landward of the ocean beach that has an elevation equal to the mean flood level for the area plus 6 ft.

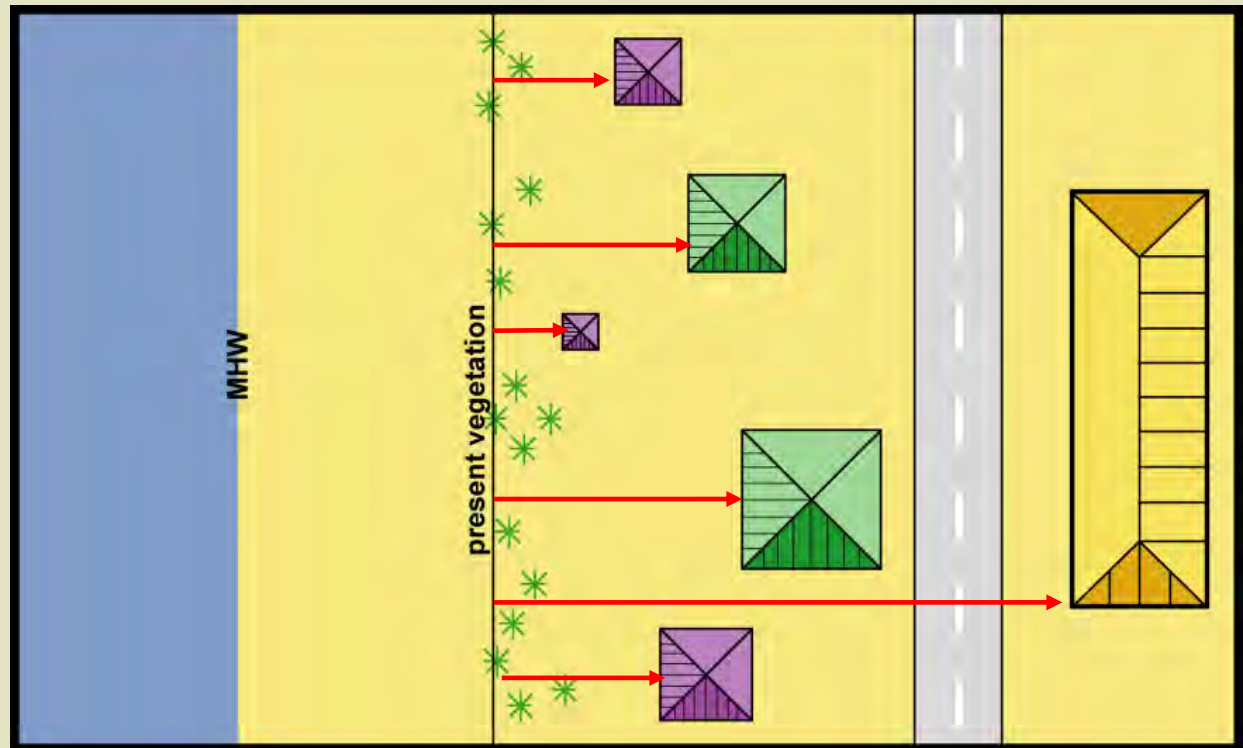
Frontal Dune — First mound of sand located landward of ocean beaches that has stable and natural vegetation present.

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





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.

“Oceanfront Construction Setbacks – 101”

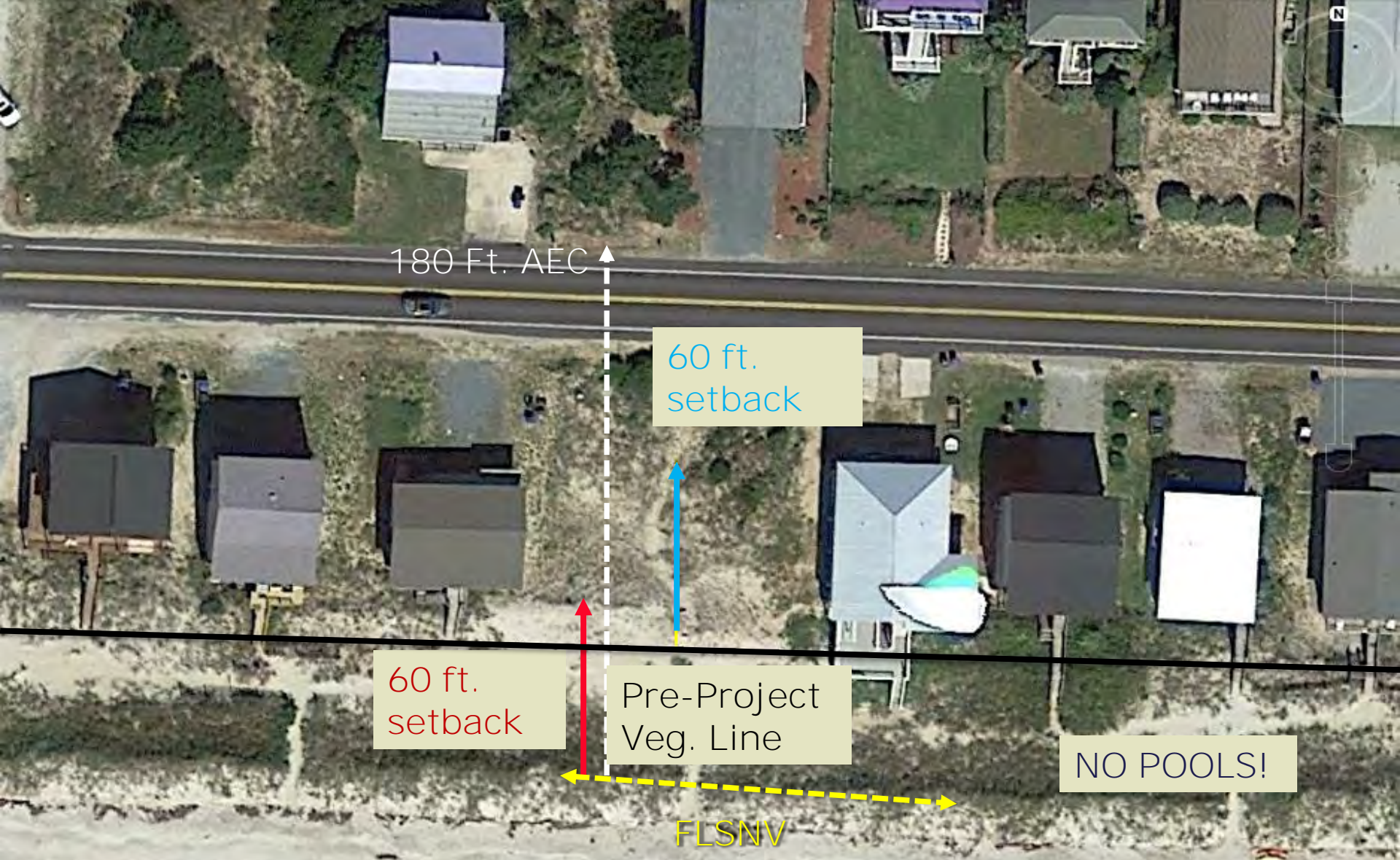


Setback Line

Setback Measured from Vegetation

FLSNV

Rules: 15A NCAC 07H .0306



180 Ft. AEC

60 ft. setback

60 ft. setback

Pre-Project Veg. Line

NO POOLS!

FLSNV

With an approved Measurement Line or approved beach management plan, use the FLSNV instead of the static line to pull the AEC and the oceanfront setbacks. Note that pools still cannot be authorized waterward of the static line !!



Why have setbacks?





15A NCAC 07H .0303

MANAGEMENT OBJECTIVE OF OCEAN HAZARD AREAS

- ~ Minimizing losses to life and property resulting from storms and long-term erosion,
- ~ Preventing encroachment of permanent structures on public beach areas,
- ~ Preserving the natural ecological conditions of the barrier dune and beach systems, and
- ~ Reducing the public costs of inappropriately sited development



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)
- Temporary amusement stands
- Sand fencing
- Swimming pools



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.





CAMA Permits

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



Permitting Mechanisms:

Minor Permits

- Activities that are proposed above the NWL or NHW with less than 1 acre of impact

****NO WETLAND IMPACTS****

Major Permits

- Activities that are proposed below the NWL or NHW (water dependent)
- Requires review from other State and Federal Agencies



Estuarine Waters and Public Trust Areas

- Water dependent development = **major development**
- All water dependent development permits are issued out of the regional offices.
- High Water can be flagged in the field as NHW/NWL or by survey of MHW.





Question – What is a CAMA Line??

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



Questions??