NC COASTAL RESOURCES COMMISSION
September 19-20, 2018
Holiday Inn
Wilmington, NC

The State Government Ethics Act mandates that at the beginning of any meeting the Chair remind all the members of their duty to avoid conflicts of interest and inquire as to whether any member knows of any conflict of interest or potential conflict with respect to matters to come before the Commission. If any member knows of a conflict of interest or potential conflict, please state so at this time.

Wednesday, September 19th

10:00 DIVISION OF COASTAL MANAGEMENT OVERVIEW & COMMISSIONER ORIENTATION (Ballroom)

- Open Meetings Law, Public Records Law, Ethics Act & Conflicts of Interest and CRC Operating Procedures — Mary Lucasse
- Training on Variance Procedures — Mary Lucasse
- Division of Coastal Management Overview — Braxton Davis
- Public Trust Area Environmental of Concern — Christy Goebel
- CAMA Permitting — Doug Huggett
- Federal Consistency — Daniel Govoni
- Review of Ocean Hazard AEC Setback Lines *(CRC-18-18)* — Ken Richardson

12:00 LUNCH

1:15 COMMISSION CALL TO ORDER* (Ballroom) — Renee Cahoon, Chair

- Roll Call
- Chair's Comments

1:30 ACTION ITEMS — Mike Lopazanski

- Consideration of Final Adoption 15A NCAC 7B .0802 Public Hearing and Local Adoption Requirements & 7B. 0803 Certification and Use of the Plan (CRC Delegation of Certification)
- Consideration of Final Adoption 15A NCAC 7H .0209 - Coastal Shorelines (Stormwater Correction)
- Consideration of Final Adoption 15A NCAC 7K .0208 - Single Family Residences Exempted (LPO Authority)
- Review of Public Comments & Consideration of Final Adoption 15A NCAC 7H .0308 Specific Use Standards & 7K .0103 Maintenance and Repair (Dune Rules) *(CRC-18-21)*
- Consideration of Final Adoption 15A NCAC 7H .0308; 7H .1704 and 7H .1705 Temporary Erosion Control Structures (Sandbags)
- Consideration of Fiscal Analysis Approval 15A NCAC 7H .0309 Exceptions (Outfalls) *(CRC-18-22)*
- Consideration of Fiscal Analysis Approval 15A NCAC 7J .0409 Civil Penalties *(CRC-18-23)*

2:30 BREAK

2:45 LEGAL UPDATES — Mary Lucasse

- Update on Litigation of Interest to the Commission
- Update on The Riggings and Temporary Erosion Control Structures Legislation

3:30 CRC RULE DEVELOPMENT

- Consideration of Periodic Review Rule Re-adoption Schedule *(CRC-18-16)* — Mike Lopazanski
- Consideration of Proposed Amendments to Major Permit Expiration Dates *(CRC-18-17)* — Doug Huggett

4:00 RECESS

Thursday, September 20th

8:30	**COMMISSION CALL TO ORDER* (Ballroom)**	Renee Cahoon, Chair
	• Roll Call	
	• Chair's Comments	
	• Secretary, Department of Environmental Quality Comments	Michael S. Regan
	• Approval of April 10-11, 2018 Meeting Minutes	
	• Executive Secretary's Report	Braxton Davis
	• Boards & Commissions Reimbursements, BEACON and Waivers	OSHR Temporary Solutions
9:30	**COASTAL ISSUES**	
	• GenX Update	Sheila Holman, DEQ Asst. Sectary
	• Offshore Energy Update	Braxton Davis
10:15	**BREAK**	
10:30	**BEACH AND INLET MANAGEMENT**	
	• Ocean Erodible AEC and Setback Factor Update Study – Long-term Erosion Rates *(CRC-18-20)*	Ken Richardson
	• CRC Science Panel IHA Delineation Update *(CRC-18-24)*	Ken Richardson
	• Commission Discussion of IHA Management	
11:45	**PUBLIC INPUT AND COMMENT**	Renee Cahoon, Chair
12:00	**LUNCH**	
1:15	**BEACH AND INLET MANAGEMENT**	
	• Dredged Material Management in NC	Justin McCorcle, USACE Layton Bedsole, New Hanover Co. Shore Protection Greg "rudi" Rudolph, Carteret Co. Shore Protection
3:15	**OLD/NEW BUSINESS**	Renee Cahoon, Chair
3:30	**ADJOURN**	

Executive Order 34 mandates that in transacting Commission business, each person appointed by the governor shall act always in the best interest of the public without regard for his or her financial interests. To this end, each appointee must recuse himself or herself from voting on any matter on which the appointee has a financial interest. Commissioners having a question about a conflict of interest or potential conflict should consult with the Chairman or legal counsel.

**** Times indicated are only for guidance and will change. The Commission will proceed through the agenda until completed; some items may be moved from their indicated times.***

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
BRAXTON C. DAVIS
Director

NORTH CAROLINA
Environmental Quality

September 4, 2018

MEMORANDUM **CRC-18-18**

TO: Coastal Resources Commission

FROM: Ken Richardson, *Shoreline Management Specialist*

SUBJECT: Review of Ocean Hazard AEC Setback Lines

Ocean Hazard AEC

The Ocean Hazard Setback for siting oceanfront development is measured in a landward direction from the first line of stable and natural vegetation (vegetation line), the static vegetation line, or the measurement line. Setback distance is calculated by multiplying a Setback Factor (a.k.a. "erosion rate") times a graduated variable that corresponds to the size of the proposed structure (*see Table 1*). The Setback Factor represents the statistically smoothed and blocked, average annual, long-term shoreline change rates, which are updated approximately every 5 years. For purposes of establishing a minimum construction setback, "2" is the default minimum Setback Factor, which includes those areas with erosion rates less than 2 feet/year and areas where accretion is measured.

Oceanfront Setback Factors were established by the Coastal Resources Commission (CRC) under the Coastal Area Management Act (CAMA) in 1979 to minimize losses of life and property resulting from storms and long-term erosion, while also 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. To accomplish the management objectives for the Ocean Hazard Area, Setback Factors serve two purposes: 1) to properly site oceanfront development, and; 2) to determine the landward-most extent of the Ocean Erodible Area of Environmental Concern (OEA) - the area where there is a substantial possibility of future shoreline erosion.

Table 1. Setback Factors & graduated setback.

Structure Size	Setback (feet)	*example "setback factor = 2"*
< 5,000 sqft.	Minimum 60 feet, or 30 x setback factor	*2 x 30 = 60 feet*
≥ 5,000 sqft.	Minimum 120 feet, or 60 x setback factor	*2 x 60 = 120 feet*
≥10,000 sqft.	Minimum 130 feet or 65 x setback factor	*2 x 65 = 130 feet*
≥20,000 sqft.	Minimum 140 feet or 70 x setback factors	*2 x 70 = 140 feet*
≥40,000 sqft.	Minimum 150 feet or 75 x setback factor	*2 x 75 = 150 feet*
≥60,000 sqft.	Minimum 160 feet or 80 x setback factor	*2 x 80 = 160 feet*
≥80,000 sqft.	Minimum 170 feet or 85 x setback factor	*2 x 85 = 170 feet*
≥100,000 sqft.	Minimum 180 feet or 90 x setback factor	*2 x 90 = 180 feet*

North Carolina's oceanfront shoreline changes rates have historically been calculated using the End-Point method since the first study was conducted in 1979. This method uses the earliest and most current shoreline data points where they intersect at any given shore-perpendicular transect. The distance between the two shorelines (shore-transect intersect) is then divided by the time, or number of years, between the two shorelines. Since the current method used to calculate shoreline change rates has been consistent since 1979, it provides the CRC with results that can be generally compared to those from previous studies. With the advancement of mapping technology and a greater inventory of shoreline data, results from methods that can incorporate multiple (more than two) shorelines will be compared during the 2018-2019 update.

Additionally, because setbacks can help preserve spaces that can serve as undeveloped buffer areas for storms, the U.S. Federal Emergency Management Administration (FEMA) currently uses North Carolina's erosion rate updates to award Community Rating System (CRS) points to qualified coastal communities. The CRS is used by FEMA to assess flood insurance rates for these communities. FEMA's current policy allows North Carolina's oceanfront erosion rate update to account for fifty (50) CRS points only if the state's erosion rates are updated every five years. Loss of these points could potentially result in increased flood insurance rates for certain coastal communities.

Setback Lines

Oceanfront Setback Lines for development are measured in a landward direction from the vegetation line, the static vegetation line, or the measurement line.

A. **Vegetation Line, or First Line of Stable & Natural Vegetation (FLSNV)** The FLSNV is the primary reference feature for measuring oceanfront setbacks. This line represents

the boundary between the normal dry-sand beach, and the more stable uplands. If the vegetation has been planted, it may be considered "stable" when most of the plant stems are from continuous rhizomes rather than planted individual root sets. Planted vegetation may be considered "natural" when most of the plants are mature and additional species native to the region have been recruited, providing stem and rhizome densities that are like adjacent areas that are naturally occurring.

While the vegetation line has been used as an oceanfront setback measurement line since 1979, the CRC has previously determined that when vegetation moves oceanward after a beach nourishment project, this represents an artificial situation that should not be considered "stable and natural" and therefore should not be used for measuring oceanfront setbacks. In 1995, the CRC codified a method of measuring setbacks on nourished beaches that utilizes the surveyed pre-project existing vegetation line, which became known as the "Static Vegetation Line."

B. Static Vegetation Line (SVL): The SVL is established in areas within the boundaries of a large-scale beach fill project (>300,000 cubic yards) and represents the vegetation line that existed within one year prior to the onset of project construction. A static line is established in coordination with the Division of Coastal Management. Once a static line is established, setbacks are measured from either the static line or the vegetation line, whichever is more landward. In addition, once a static line is established it does not expire.

The CRC's static line rule was based on three primary issues: 1) evidence that nourished beaches can have higher erosion rates than natural beaches, 2) no assurance that funding for future nourishment projects would be available for maintenance work as the original project erodes away, and 3) structures could be more vulnerable to erosion damage since their siting was tied to an artificially-forced system. The intent of the static line provisions has been to recognize that beach nourishment is an erosion response necessary to protect existing development but should not be a stimulus for new development on sites that are not otherwise suitable for building.

C. Static Vegetation Line Exception: Over time, the Commission found that some communities had demonstrated a long-term commitment to beach nourishment and maintenance of their nourished beaches. Due to this long-term commitment, beach vegetation had become stable and migrated oceanward of the static line. In many cases, proposed development on lots within these communities could meet the required setback from the new vegetation line but could not be permitted since they did not meet the setback from the static vegetation line.

To recognize local government efforts to address erosion through a documented long-term commitment to beach nourishment, and to offer relief from the static line requirements, the CRC adopted Static Vegetation Line Exception procedures in 2009. The Static Vegetation Line Exception allows a community to measure setbacks from the vegetation line rather than the static line, but includes certain limitations and conditions.

To be eligible for this exception, a community must petition the CRC by providing a beach management plan that describes the project area and design; identify sediment sources; identify funding sources to maintain the initial large-scale project; and, provide an update on project effectiveness and how it will continue to be maintained. The plan must be updated and presented to the CRC every 5 years for reauthorization. Under the exception, development must meet the required setback from the vegetation line, no portion of a building or structure can be oceanward of the landward-most adjacent neighbor or an average line of construction is determined by DCM, and no swimming pools may be permitted seaward of static line.

D. Development Line: In 2016, the Commission provided a second alternative to the Static Line by promulgating "Development Line" procedures. The Development Line allows use of the vegetation line for setback determinations, with local governments setting the oceanward limit of structures, subject to CRC approval. Unlike with the Static Line Exception, there is no requirement for a demonstrated long-term commitment to beach nourishment or beach management plan. The following conditions are required:

1. Development line is mapped by the community using an average line of construction and must be referenced in local ordinance(s).
2. Represents the seaward-most allowable limit of oceanfront development.
3. Must be approved by the CRC. Once approved, only the community can request a change.
4. Development must meet the applicable setback from the vegetation line.
5. No swimming pools may be permitted seaward of the static line.

Currently there are twenty-one North Carolina communities with a static line. Eight of those communities have CRC-authorized Static Vegetation Line Exceptions, and four of them have CRC-approved Development Lines (*see Table 2*).

Table 2. *List of Communities with Static Vegetation Lines, SVL Exceptions and Development Lines.*

Community	SVL	SVL Exception	DVL
Ocean Isle	**Yes**	**Yes**	*No*
Oak Island	**Yes**	*No*	**Yes**
Caswell Beach	**Yes**	*No*	*No*
Bald Head Island	**Yes**	*No*	*No*
Kure Beach	**Yes**	*No*	**Yes**
Carolina Beach	**Yes**	**Yes**	**Yes**
Wrightsville Beach	**Yes**	**Yes**	*No*
Figure Eight Island	*No*	*No*	**Yes**
Topsail Beach	**Yes**	*No*	*No*
North Topsail Beach	**Yes**	*No*	*No*
Emerald Isle	**Yes**	**Yes**	*No*
Indian Beach	**Yes**	**Yes**	*No*
Salter Path	**Yes**	**Yes**	*No*
Pine Knoll Shores	**Yes**	**Yes**	*No*
Atlantic Beach	**Yes**	**Yes**	*No*
Buxton	**Yes**	*No*	*No*
Rodanthe	**Yes**	*No*	*No*
Nags Head	**Yes**	*No*	*No*
Kill Devil Hills	**Yes**	*No*	*No*
Kitty Hawk	**Yes**	*No*	*No*
Southern Shores	**Yes**	*No*	*No*

E. Measurement Line: A Measurement Line represents the post-storm location of a vegetation line if a storm causes overwash or a loss of vegetation so that not enough vegetation exists to determine oceanfront setbacks. This line is located by using the most current pre-storm aerial photography to map the pre-storm vegetation line, and then moving it landward a distance equal to the average width of the beach recession caused by the storm. Measurement lines are generally temporary until the vegetation is re-established to the point where it can once again be used for determining oceanfront setbacks but may also be permanently designated by the CRC.

Key Differences	SVL Exception	DVL
Approved by CRC	✓	✓
Measure Setbacks from FLSNV (not SVL)	✓	✓
Mapped & Managed by Community	✗	✓
CRC Reauthorization Required	✓	✗
Structures could potentially move seaward of adjacent structure	✗	✓
Beach Management Plan Required	✓	✗
Swimming Pools Seaward of SVL	✗	✗
Eliminates Static Vegetation Line	✗	✗

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
BRAXTON C. DAVIS
Director

NORTH CAROLINA
Environmental Quality

CRC-18-21

September 4, 2018

MEMORANDUM

TO: Coastal Resources Commission

FROM: Mike Lopazanski

SUBJECT: Public Comment on Proposed Amendments to 15A NCAC 7H .0308 Specific Use Standards 7 7K .0103 Maintenance and Repair (Dune Rules)

Your rules (15A NCAC 7H .0305) include definitions of various landforms associated with the Ocean Hazard Area including Primary Dunes and Frontal Dunes. Frontal Dunes are defined as the first mound of sand located landward of the ocean beach that has stable and natural vegetation present. Primary Dunes are the first mounds of sand located landward of the ocean beaches having an elevation equal to the mean flood level (in a storm having a one percent chance of being equaled or exceeded in any given year) for the area, plus an additional six feet of elevation. Primary Dunes extend landward to the lowest elevation in the depression or dune tough behind that same mound of sand.

To avoid weakening the protective nature of Primary and Frontal dunes, no development is permitted that involves the removal or relocation of primary or frontal dune sand or vegetation thereon that would adversely affect the integrity of the dune. Other dunes within the ocean hazard area are not to be disturbed unless development of the property is otherwise impracticable. Any disturbance of these other dunes is allowed only to the extent permitted by 15A NCAC 07H .0308(b).

The intent of the dune rules, first enacted in 1981 was to set standards for dune creation that would require following natural dune alignments, and avoid "pushed-up" dikes on the oceanfront. The CRC also intended to prevent the creation of artificial dunes out on the "storm beach" that would create a false sense of security. The CRC also intended to restrict the building of primary and frontal dunes on the beachfront to circumvent oceanfront setbacks. From reviewing the CRC meeting minutes and materials in the early days of the coastal program, there was concern by the CRC that allowing the expansion of dunes out onto the beach (past the frontal dune) would lead to a false sense of security and stability, particularly in inlet areas.

In 1992, DCM staff realized that strict application of rules restricting the pushing of sand oceanward was in some cases impractical, as some degree of this activity was often necessary during the construction of buildings and driveways on oceanfront lots. The rule was amended to allow the redistribution of sand "held in storage" in other (secondary) dunes within the AEC, but no farther oceanward than the crest of the primary dune or landward toe of the frontal dune.

More recently, DCM staff has observed that shifting sand blown by storms and general prevailing winds has been covering decks, driveways, swimming pools, houses and buildings, both on the oceanfront as well as landward of the oceanfront area. The situation has created some problems for property owners trying to remove sand from around their structures while staying in compliance with the dune protection rules. Property owners have also been looking for ways to enhance the barrier dune system while being able to utilize their property, including the redistribution of sand on individual lots. Additionally, Commissioners have expressed an interest in ensuring that sand, particularly in areas associated with beach nourishment projects, remains within the beach and dune systems.

The proposed amendments to the dune-related rules (7H .0308 Specific Use Standards for Ocean Hazard Areas and 7K .0103 Maintenance and Repair), which are up for adoption at the upcoming meeting, address the redistribution of sand and Hatteras Ramps as follows with the intent of adding more flexibility:

Redistribution of Sand

7H .0308

- Sand held in storage in any dune, other than the frontal or primary dune, shall remain on the lot or tract of land to the maximum extent practicable and may be redistributed within the Ocean Hazard AEC provided that it is not placed any farther oceanward than the crest of a primary ~~dune or landward toe~~ dune, if present, or the crest of a frontal dune.

7K .0103

- Redistribution of sand that results from storm overwash or aeolian transport around buildings, pools, roads, parking areas and associated structures is considered maintenance so long as the sand remains within the Ocean Hazard AEC. Individuals proposing either such activities must consult with the Division of Coastal Management or the local permit officer to determine whether the proposed activity qualifies for the exclusion under G.S. 113A-103(5)(b)(5).

Hatteras Ramps

7H .0308

- In order to ~~avoid weakening~~ preserve the protective nature of primary and frontal dunes a structural accessway (such as a "Hatteras ramp") ~~shall~~ may be provided for ~~any~~ off-road vehicle (ORV) or emergency vehicle access. Such accessways shall be no greater than ~~10~~ 15 feet in width and ~~shall~~ may be constructed of wooden sections fastened ~~together~~ together, or other materials approved by the Division, over the length of the affected dune area. Installation of a Hatteras ramp shall be done in a manner that will preserve the dune's function as a protective barrier against flooding and erosion

by not reducing the volume of the dune.

7H .0308

- Structural accessways may be constructed no more than six feet seaward of the waterward toe of the frontal or primary dune, provided they do not interfere with public trust rights and emergency access along the beach. Structural accessways are not restricted by the requirement to be landward of the FLSNV as described in 07H .0309(a).

The Commission approved proposed amendments for public hearing at their July 2017 meeting and the fiscal analysis at their February 2018 meeting. A public hearing was held in April 2018 and the received two comments below:

Steve Smith, Topsail Beach Commissioner and Chairman of Topsail Shoreline Protection Commission, stated some of our communities have started erosion control structure plans and designs, will these amendments stop these plans? If you lose the frontal dune, will these amendments allow the community to come back and restore a frontal dune system in the area? This is unclear. Topsail Beach would like 7H .0308(b)(5), which states that "no new dunes shall be created in inlet hazard areas", removed or modified. We would also like to see some strengthening of 7H .0308(d)(3) to say it is for all structures in the VE Zone and take into consideration that dune height plays as important of a role as pile depth. Topsail Beach is supportive of the areas in the amendments that address how to build in a dune area.

Cliff Ogburn, Town of Nags Head Town Manager, stated he speaks in support of the dune rules on behalf of the Nags Head Mayor and Board of Commissioners. These amendments as they pertain to allowing Hatteras Ramps to be made out of materials other than wood, allowing them to extend out onto the flat beach, and more dune protection. Nags Head has had a lot of sand that have created some dunes that are difficult to manage when it comes to providing access. We have more than 40 beach accesses and about half of them have vehicle access for the public or public safety workers. Being able to utilize these ramps will keep more of the dune in place and allow vehicle access without altering the dunes.

While the creation of dunes in Inlet Hazard Areas has been a topic of discussion, it would be better addressed as part of the Commission's current deliberations on the use standards for Inlet Hazard Areas. The creation of dunes could potentially affect development setbacks and should be part of a broader discussion of how to manage these areas.

15A NCAC 7H .0308(d)(3) references building construction standards for the oceanfront and the requirement that pilings have a tip penetration of eight feet below the lowest ground elevation and five feet below sea level for structures sited on or seaward of a primary dune. These construction standards used to also apply to the High Hazard Flood AEC (a sub category of the Ocean Hazard AEC) which corresponded to the VE Zones identified on FEMA Flood Insurance Rate Maps. The High Hazard Flood AEC was repealed by the Commission in 2015 due to its deference to the NC Building Code standards and National Flood Insurance Program (NFIP) standards. A broader application of your construction standards outside of the Ocean Hazard AEC should also be part of a separate discussion that includes the interaction of these rules with the NC Building Code and the NFIP. Staff therefore recommends that the Commission adopt the

proposed amendments without changes, and consider taking up the other issues raised in public comments for discussion at a later meeting.

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
BRAXTON C. DAVIS
Director

NORTH CAROLINA
Environmental Quality

CRC-18-22

September 6, 2018

MEMORANDUM

TO: Coastal Resources Commission, and
FROM: Tancred Miller
SUBJECT: Ocean Outfalls Fiscal Analysis

The CRC began rulemaking on 15A NCAC 07H .0309 Use Standards for Ocean Hazard Areas: Exceptions, to provide flexibility in maintaining existing ocean outfalls that are owned or operated by a unit of State or local government.

The CRC was asked to allow for as-needed lengthening and shortening of existing outfall pipes, and routine maintenance and repairs due to weather exposure or storm damage.

The CRC has approved rule language to accommodate the request for regulatory relief for existing stormwater outfalls. Requests for new extensions must go through the CAMA Major Permitting process, 15A NCAC 07J .0200, for review by the appropriate state and federal agencies. Once a design is approved, NCDOT or the local government may extend or shorten the outfall within the permitted dimensions without the need for a new permit application each time; shortening or lengthening outfall structures within the authorized dimensions will be considered maintenance under 15A NCAC 07K .0103. Outfalls may not prevent pedestrian or vehicular access along the beach.

Staff has prepared the required fiscal analysis and it has been approved by the Department and by the Office of State Budget and Management (OSBM). Staff's analysis, which is attached, found that the fiscal impacts that may result from this action would include a $400 CAMA permit application fee, plus engineering and construction costs that DCM is unable to estimate. These costs would be incurred only if the Department of Transportation or a responsible local government applied for a permit to extend any existing ocean outfall(s).

Beachgoers could also receive certain non-monetary benefits, including a reduction in public health risk, enhanced aesthetics, and improved access along the beach.

The proposed effective date of this amendment is February 1, 2019.

Fiscal Analysis

15A NCAC 07H .0309 Use Standards for Ocean Hazard Areas: Exceptions

"Ocean Outfalls"

Prepared by

Tancred Miller
Coastal & Ocean Policy Manager
Policy & Planning Section
NC Division of Coastal Management
(252) 808-2808, ext. 224

August 2018

Summary

Agency	DEQ, Division of Coastal Management (DCM) Coastal Resources Commission (CRC)
Title of the Proposed Rule	Use Standards for Ocean Hazard Areas: Exceptions
Citation	15A NCAC 07H .0309
Description of the Proposed Rule	7H .0309 describes the types of development that can be permitted seaward of the generally applicable oceanfront setbacks in the Ocean Hazard AEC (OHA).
Agency Contact	Tancred Miller Coastal and Ocean Policy Manager Tancred.Miller@ncdenr.gov (252) 808-2808 ext. 224
Authority	G.S. 113A-107(a); 113A-107(b); 113A-113(b)(6)a; 113A-113(b)(6)b; 113(b)(6)d; 113A-124.
Necessity	The proposed amendments are needed to facilitate maintenance of existing stormwater outfalls on ocean beaches.
Fiscal Impact Summary	State government: Yes NCDOT: Yes Local government: Yes Substantial impact: No

Description of the Proposed Rules

There are 26 stormwater outfalls on the ocean beaches of North Carolina that are maintained either by a unit of state of local government, Table 1. Most of these outfalls are on the beaches of Dare and New Hanover Counties, in the towns of Kill Devil Hills, Nags Head, and Kure Beach. NCDOT maintains 10 outfalls, and the remaining 16 are maintained by a county or municipal government.

Site #	County	Town	Route	Nearest Intersection	Maintained By
1	Brunswick	Ocean Isle Beach	E. First St.	Greensboro	NCDOT
2	New Hanover	Hanby Beach	US 421	Ocean View	NCDOT
3	Dare	Nags Head	NC 12	Gallery Row	NCDOT
4	Dare	Nags Head	NC 12	Curlew St.	NCDOT
5	Dare	Nags Head	NC 12	Conch St.	NCDOT
6	Dare	Nags Head	NC 12	Southside Rd.	NCDOT
7	Dare	Nags Head	NC 12	Old OI Rd.	NCDOT
8	Dare	Kill Devil Hills	NC 12	Lake Club Dr.	NCDOT
9	Dare	Kill Devil Hills	NC 12	Martin St.	NCDOT
10	Dare	Kill Devil Hills	NC 12	Baum St.	NCDOT
11	Dare	Kill Devil Hills	NC 12	Oregon Ave.	Local Gov't
12	New Hanover	Hanby Beach	US 421	Kure Vil. Way	Local Gov't
13	New Hanover	Kure Beach	US 421	M Ave.	Local Gov't
14	New Hanover	Kure Beach	US 421	L and M Ave.	Local Gov't
15	New Hanover	Kure Beach	US 421	L Ave.	Local Gov't
16	New Hanover	Kure Beach	US 421	K Ave.	Local Gov't
17	New Hanover	Kure Beach	US 421	K Ave.	Local Gov't
18	New Hanover	Kure Beach	US 421	J Ave.	Local Gov't
19	New Hanover	Kure Beach	US 421	I Ave.	Local Gov't
20	New Hanover	Kure Beach	US 421	H Ave.	Local Gov't
21	New Hanover	Kure Beach	US 421	G Ave.	Local Gov't
22	New Hanover	Kure Beach	US 421	F Ave.	Local Gov't
23	New Hanover	Kure Beach	US 421	Davis Rd.	Local Gov't
24	New Hanover	Kure Beach	US 421	Pres. Davis Rd	Local Gov't
25	New Hanover	Kure Beach	US 421	Pres. Davis Rd	Local Gov't
26	New Hanover	Kure Beach	US 421	Assembly	Local Gov't

Table 1. Ocean outfalls maintained by state or local government

The outfalls are grandfathered, having been installed prior to subsequent limitations on oceanfront development under CAMA. Despite their grandfathered status, the CRC's rules do not allow for extension of existing outfalls, which creates a hardship and potential public safety hazard when beaches are widened through beach nourishment, Fig. 1. There is also a public health concern with having stormwater effluent discharging into the surf zone where swimmers are present.

Fig. 1 Non-extended outfall on a nourished beach

In other cases, particularly in New Hanover County, outfall pipes and framing may become exposed as the beach erodes, Fig. 2, creating an impediment to pedestrian and vehicular access. In these cases, the responsible government may wish to temporarily shorten the length of the pipe to allow lateral access.

Fig. 2 Exposed outfall pipe and framing on an eroded beach

The CRC was asked to consider adopting a regulatory mechanism to allow for the extension of existing ocean outfalls, whether in conjunction with a beach nourishment project, or to allow effluent to be released beyond the surf zone where swimmers are normally present, Fig. 3.

Fig. 3 Outfall buried and extended beyond the surf zone, and marked with warning signs

The CRC was also asked to allow for as-needed lengthening and shortening of existing outfall pipes, and routine maintenance and repairs due to exposure or storm damage.

The CRC has approved rule language to accommodate the request for regulatory relief for existing stormwater outfalls. Requests for new extensions must go through the CAMA Major Permitting process, 15A NCAC 07J .0200, for review by the appropriate state and federal agencies. Once a design is approved, NCDOT or the local government may extend or shorten the outfall within the permitted dimensions without the need for a new permit application each time; shortening or lengthening outfall structures within the authorized dimensions will be considered maintenance under 15A NCAC 07K .0103. Outfalls may not prevent pedestrian or vehicular access along the beach.

The proposed effective date of this amendment is February 1, 2019.

FISCAL IMPACTS

The proposed amendment authorizes a new activity for the purposes of public health and safety, as currently the rules do not allow for extensions. The proposed rules apply to 26 stormwater outfalls along North Carolina's beaches. When an eligible unit of state or local government opts to maintain or extend an outfall, they will incur additional costs for engineering design and construction, as well as applicable permit fees. DCM is unable to predict the timing and frequency of stormwater outfall extensions.

The amendment does not require any affected party to take any specific action, does not affect permitting costs, and does not add any additional regulatory burden.

State Government/Division of Coastal Management

The proposed rule change is not expected to noticeably affect the number of permit applications and fees submitted to DCM since action by an applicant is voluntary and there are four eligible applicants that would likely need only one permit each: NCDOT, Town of Kill Devil Hills, New Hanover County, and Town of Kure Beach. The CAMA Major Permit fee is $400.

NC Department of Transportation

Pursuant to G.S. 150B-21.4(a1), the agency reports that the proposed amendment will improve environmental permitting for the NC Department of Transportation (NCDOT). The amendment will allow NCDOT the flexibility to maintain outfalls as necessary, and should NCDOT wish to extend any of their existing outfalls, they will now be able to do so. If NCDOT, at its discretion, opts to extend their outfalls, the vast majority of costs that they incur will be in engineering design and construction. General cost estimates for design and construction are not available because of the number of variables involved, such as the possible need to replace or retrofit existing structures, the types of materials involved, the length of pipe, need for in-water anchoring, and the amount of excavation required.

Local Government

DCM does not anticipate any fiscal impact on local governments, since applications for new extensions will most likely be included in the existing permitting process for beach nourishment projects. DCM does not expect any change in the number of permits issued, and there will be no increase in application fees. If a local government, at its discretion, opts to extend their outfalls, the vast majority of costs that they incur will be in engineering design and construction. General cost estimates for design and construction are not available because of the number of variables involved, such as the possible need to replace or retrofit existing structures, the types of materials involved, the length of pipe, need for in-water anchoring, and the amount of excavation required.

Beachgoers

If outfalls are extended beyond the surf zone, and/or actively lengthened and shortened in response to changes in beach width, beachgoers can expect to receive certain non-monetary benefits. Potential benefits include a reduction in public health risk, enhanced aesthetics, and improved access along the beach.

Substantial Impact

Pursuant to G.S. 150B-21.4(b1), the agency reports that the proposed amendment will not have a substantial economic impact.

15A NCAC 07H .0309 USE STANDARDS FOR OCEAN HAZARD AREAS: EXCEPTIONS

(a) The following types of development shall be permitted seaward of the oceanfront setback requirements of Rule .0306(a) of ~~the Subchapter~~ this Section if all other provisions of this Subchapter and other state and local regulations are met:

(1) campsites;
(2) driveways and parking areas with clay, packed sand or gravel;
(3) elevated decks not exceeding a footprint of 500 square feet;
(4) beach accessways consistent with Rule .0308(c) of this ~~Subchapter;~~ Section;
(5) unenclosed, uninhabitable gazebos with a footprint of 200 square feet or less;
(6) uninhabitable, single-story storage sheds with a foundation or floor consisting of wood, clay, packed sand or gravel, and a footprint of 200 square feet or less;
(7) temporary amusement stands;
(8) sand fences; and
(9) swimming pools.

In all cases, this development shall be permitted only if it is landward of the vegetation line or static vegetation line, whichever is applicable; involves no alteration or removal of primary or frontal dunes which would compromise the integrity of the dune as a protective landform or the dune vegetation; has overwalks to protect any existing dunes; is not essential to the continued existence or use of an associated principal development; is not required to satisfy minimum requirements of local zoning, subdivision or health regulations; and meets all other non-setback requirements of this Subchapter.

(b) Where application of the oceanfront setback requirements of Rule .0306(a) of this ~~Subchapter~~ Section would preclude placement of permanent substantial structures on lots existing as of June 1, 1979, buildings shall be permitted seaward of the applicable setback line in ocean erodible areas, but not inlet hazard areas or unvegetated beach areas, if each of the following conditions are met:

(1) The development is set back from the ocean the maximum feasible distance possible on the existing lot and the development is designed to minimize encroachment into the setback area;
(2) The development is at least 60 feet landward of the vegetation line or static vegetation line, whichever is applicable;
(3) The development is not located on or in front of a frontal dune, but is entirely behind the landward toe of the frontal dune;
(4) The development incorporates each of the following design standards, which are in addition to those required by Rule .0308(d) of this ~~Subchapter.~~ Section.
    (A) All pilings shall have a tip penetration that extends to at least four feet below mean sea level;
    (B) The footprint of the structure shall be no more than 1,000 square feet, and the total floor area of the structure shall be no more than 2,000 square feet. For the purpose of this Section, roof-covered decks and porches that are structurally attached shall be included in the calculation of footprint;
    (C) Driveways and parking areas shall be constructed of clay, packed sand or gravel except in those cases where the development does not abut the ocean and is located landward of a paved public street or highway currently in use. In those cases concrete, asphalt or turfstone may also be used;
    (D) No portion of a building's total floor area, including elevated portions that are cantilevered, knee braced or otherwise extended beyond the support of pilings or footings, may extend oceanward of the total floor area of the landward-most adjacent building. When the geometry or orientation of a lot precludes the placement of a building in line with the landward most adjacent structure of similar use, an average line of construction shall be determined by the Division of Coastal Management on a case-by-case basis in order to determine an ocean hazard setback

that is landward of the vegetation line, static vegetation line or measurement line, whichever is applicable, a distance no less than 60 feet.

(5) All other provisions of this Subchapter and other state and local regulations are met. If the development is to be serviced by an on-site waste disposal system, a copy of a valid permit for such a system shall be submitted as part of the CAMA permit application.

(c) Reconfiguration and development of lots and projects that have a grandfather status under Paragraph (b) of this Rule shall be allowed provided that the following conditions are met:

(1) Development is setback from the first line of stable natural vegetation a distance no less than that required by the applicable exception;

(2) Reconfiguration shall not result in an increase in the number of buildable lots within the Ocean Hazard AEC or have other adverse environmental consequences.

For the purposes of this Rule, an existing lot is a lot or tract of land which, as of June 1, 1979, is specifically described in a recorded plat and which cannot be enlarged by combining the lot or tract of land with a contiguous lot(s) or tract(s) of land under the same ownership. The footprint is defined as the greatest exterior dimensions of the structure, including covered decks, porches, and stairways, when extended to ground level.

(d) The following types of water dependent development shall be permitted seaward of the oceanfront setback requirements of Rule .0306(a) of this Section if all other provisions of this Subchapter and other state and local regulations are met:

(1) piers providing public access; and

(2) maintenance and replacement of existing state-owned bridges and causeways and accessways to such bridges.

(e) Replacement or construction of a pier house associated with an ocean pier shall be permitted if each of the following conditions is met:

(1) The ocean pier provides public access for fishing and other recreational purposes whether on a commercial, public, or nonprofit basis;

(2) Commercial, non-water dependent uses of the ocean pier and associated pier house shall be limited to restaurants and retail services. Residential uses, lodging, and parking areas shall be prohibited;

(3) The pier house shall be limited to a maximum of two stories;

(4) A new pier house shall not exceed a footprint of 5,000 square feet and shall be located landward of mean high water;

(5) A replacement pier house may be rebuilt not to exceed its most recent footprint or a footprint of 5,000 square feet, whichever is larger;

(6) The pier house shall be rebuilt to comply with all other provisions of this Subchapter; and

(7) If the pier has been destroyed or rendered unusable, replacement or expansion of the associated pier house shall be permitted only if the pier is being replaced and returned to its original function.

(f) In addition to the development authorized under Paragraph (d) of this Rule, small scale, non-essential development that does not induce further growth in the Ocean Hazard Area, such as the construction of single family piers and small scale erosion control measures that do not interfere with natural oceanfront processes, shall be permitted on those non-oceanfront portions of shoreline that exhibit features characteristic of an Estuarine Shoreline. Such features include the presence of wetland vegetation, and lower wave energy and erosion rates than in the adjoining Ocean Erodible Area. Such development shall be permitted under the standards set out in Rule .0208 of this Subchapter. For the purpose of this Rule, small scale is defined as those projects which are eligible for authorization under 15A NCAC 07H .1100, .1200 and 07K .0203.

(g) Transmission lines necessary to transmit electricity from an offshore energy-producing facility may be permitted provided that each of the following conditions is met:

(1) The transmission lines are buried under the ocean beach, nearshore area, and primary and frontal dunes, all as defined in Rule ~~07H .0305,~~ .0305 of this Section, in such a manner so

as to ensure that the placement of the transmission lines involves no alteration or removal of the primary or frontal dunes; and

(2) The design and placement of the transmission lines shall be performed in a manner so as not to endanger the public or the public's use of the beach.

(h) Existing stormwater outfalls within the Ocean Hazard AEC that are owned or maintained by a State agency or local government, may be extended oceanward subject to the provisions contained within 15A NCAC 07J .0200. Outfalls may be extended below mean low water, and may be maintained in accordance with 15A NCAC 07K .0103. Shortening or lengthening of outfall structures within the authorized dimensions, in response to changes in beach width, is considered maintenance under 15A NCAC 07K .0103. Outfall extensions may be marked with signage, and shall not prevent pedestrian or vehicular access along the beach. This Paragraph does not apply to existing stormwater outfalls that are not owned or maintained by a State agency or local government.

History Note: *Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b)(6)a; 113A-113(b)(6)b; 113A-113(b)(6)d; 113A-124;*
Eff. February 2, 1981;
Amended Eff. June 1, 2010; February 1, 2006; September 17, 2002 pursuant to S.L. 2002-116; August 1, 2000; August 1, 1998; April 1, 1996; April 1, 1995; February 1, 1993; January 1, 1991; April 1, 1987.

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
BRAXTON C. DAVIS
Director

NORTH CAROLINA
Environmental Quality

CRC-18-23

August 30, 2018

MEMORANDUM

TO: Coastal Resources Commission

FROM: Mike Lopazanski

SUBJECT: Fiscal Analysis 15A 7J .0409 – Civil Penalties

At the July 2017 CRC meeting, the Commission approved for public hearing minor amendments to 7J .0409, Civil Penalties in order to be consistent with time frame changes in §143B 279.16 resulting from SL 2011-145, and existing time frames required by the Commission regarding the issuance of a Notice of Violation and a Notice of Assessment. Other amendments include the manner in which NOVs are delivered, clarifying situations when restoration will be required, and deletion of a reference to a repealed Area of Environmental Concern.

The intent of NCGS §143B 279.16 is to provide extra time for a violator and the state to work together to resolve the violation, while the Commission's current rule mandates a quick turn-around period between restoration and the NOA. The 2011 legislation and CRC rule create a narrow timeline to assemble the necessary paperwork, which can be problematic for the Division. The amendments will increase the time period before an NOA is sent from 30 to 90 days, add language to distinguish cases where restoration is required from those where it is not required, and change "shall" to "may" to be consistent with the discretionary term "may" in NCGS § 113A-126.

Under Civil Penalty Assessment 07J .0409(f)(3), the notice of civil a penalty assessment "... shall be delivered personally or by registered mail, return receipt requested." The amendment will include only the two methods allowed for delivering Notices of Assessment under NCGS §113A-126, which are registered or certified mail, return receipt requested.

You will recall that in addition to the proposed rule language, the NC Administrative Procedures Act (APA) requires a fiscal impact analysis to accompany the rule change and also to be approved by the Commission. Staff has prepared the attached fiscal analysis for the proposed amendments in compliance with NC APA.

Summary of Fiscal Analysis

Since the proposed changes are administrative in nature, DCM does not believe that any regulated party will incur additional costs as a result of this action. The amendments do not require any affected party to take any specific action, and do not affect permitting costs nor create any additional regulatory burdens.

These amendments will have no impact on local governments. DCM does not expect any change in permits issued or the cost to secure permits.

Pursuant to G.S. 150B-21.4, the agency reports that the proposed amendments will not affect environmental permitting for the NC Department of Transportation (NCDOT).

The proposed rule changes do not change the types of activities that are subject to CAMA permitting, nor will they affect the number of permit applications submitted for development. There will be no impact on DCM permit receipts, and DCM does not anticipate any fiscal impacts.

DCM anticipates the effective date of these rule amendments to be March 1, 2019.

The fiscal analysis has been approved by DEQ and by OSBM. Staff recommends Commission approval of the fiscal analysis.

Fiscal Analysis

Civil Penalties

15A NCAC 07J .0409

Prepared by

Mike Lopazanski
Policy & Planning Section
NC Division of Coastal Management
(252) 808-2808, ext. 223

July 20, 2018

Summary

Agency	DEQ, Division of Coastal Management (DCM) Coastal Resources Commission (CRC)
Title of the Proposed Rule	Civil Penalties
Citation	15A NCAC 07J .0409
Description of the Proposed Rule	7J .0409 provides the procedures and standards governing the assessment, remission, settlement and appeal of civil penalties assessed by the Coastal Resources Commission and the Director pursuant to G.S. 113A-126(d).
Agency Contact	Mike Lopazanski Policy & Planning Section Chief Mike.Lopazanski@ncdenr.gov (252) 808-2808
Authority	G.S. 113A-124; G.S. 113A-126(d)
Necessity	The Coastal Resources Commission proposes to amend its administrative rules in order to comply with legislative changes to §143B 279.16 (Effective July 1, 2011), which mandates ten (10) days be added between the time the violator is sent a Notice of Violation (NOV) of an environmental statute or an environmental rule and the subsequent date the violator is sent a Notice of Assessment (NOA) for the civil penalty. The Commission is also proposing amendments to address procedural matters, clarifications and inconsistencies with other commission development rules for the coastal area.
Impact Summary	State government: No Local government: No Substantial impact: No Federal government: No Private citizens: No

Introduction and Purpose

The North Carolina Coastal Management Program administered by the Division of Coastal Management is a compressive regulatory program intended to guide development in the coastal area while protecting coastal resources, public trust and private property rights. As part of this comprehensive program, the Coastal Area Management Act (CAMA) allows for procedures and standards governing the assessment, remission, settlement and appeal of civil penalties assessed by the Coastal Resources Commission (CRC).

CAMA permits are not only a State permit, but also a federal (US Army Corps of Engineers) authorization as well. While the majority of development permits are issued to private property owners, permits are also issued to public entities, local governments, and non-profit organizations.
If development is undertaken in an Area of Environmental Concern (AEC) under the CRC's jurisdiction without a CAMA permit or there is non-compliance with the terms and conditions of permitted development; this would also constitute a CAMA violation. The Division is provided enforcement authority through the CRC's rules as well as the Coastal Area Management Act §113A-126(d).

In 2011, the Regulatory Reform Act mandated that all regulatory divisions within the Department implement a tiered enforcement policy. Under this policy, Tier I violations receive warning letters and no civil penalties are assessed. A Tier II violation involve unauthorized work that has been completed, a Notice of Violation issuance and civil penalty assessment. These violations involve activities that could have been permitted if a permit had been sought by the applicant. Tier III is based on the seriousness of the violation, the degree of damage, or the length of time and include Continuing Notices of Violation, willful and intentional violations, dredge and fill violations, shellfish bed impacts, or unauthorized activities in Primary Nursery Areas. The Division may issue a Cease and Desist Order and civil penalties can be assessed based on the degree of impact on the resources according to penalty matrix (Schedule A). From 2012-2015, DCM has an average of 50 enforcement actions per year.

Minor amendments are needed to 7J .0409, Civil Penalties in order to be consistent with time frame changes to §143B 279.16 resulting from SL 2011-145 and time existing frames required by the Commission regarding the issuance of a Notice of Violation and a Notice of Assessment. Other amendments include the manner in which NOVs are delivered, clarifying situations when restoration will be required, and deletion of a reference to a repealed Area of Environmental Concern.

Since the proposed changes are administrative in nature, DCM does not believe that any regulated party will incur additional costs as a result of this action. The amendments do not require any affected party to take any specific action, and does not affect permitting costs nor add any additional regulatory burden.

These amendments will have no impact on local governments. DCM does not expect any change in permits issued or the cost to secure permits.

Pursuant to G.S. 150B-21.4, the agency reports that the proposed amendments will not affect environmental permitting for the NC Department of Transportation (NCDOT).

The proposed rule changes do not change the types of activities that are subject to CAMA permitting, nor will they affect the number of permit applications submitted for development. There will be no impact on DCM permit receipts, and DCM does not anticipate any fiscal impacts.

DCM anticipates the effective date of these rule amendments to be March 1, 2019.

Description of the Proposed Rules

The CRC is proposing the following amendments, based upon prior legislative changes and internal review:

- **07J .0409(e)** states that **Notices of Violation** issued by the Division "*...shall be delivered personally or by registered mail, return receipt requested.*"
  The CRC is proposing to amend this language to include the only two methods allowed for delivering Notices of Violation under NCGS §113A- 126, which are registered or certified mail, return receipt requested.

- **07J .0409(f)(2)** states that "*The Director shall issue a notice of assessment [NOA] within 30 days after the Division determines that restoration of the adversely impacted resources is complete.*" This rule can conflict with NCGS §143B 279.16 (Effective July 1, 2011), which mandates ten days be added between the time the violator is sent a Notice of Violation (NOV) of an environmental statute or an environmental rule and the subsequent date the violator is sent a Notice of Assessment (NOA) for the civil penalty.

The intent of NCGS §143B 279.16 is to provide extra time for a violator and the state to work together to resolve the violation, while the Commission's current rule mandates a quick turn-around period between restoration and the NOA. The 2011 legislation and CRC rule has created a narrow timeline to assemble the necessary paperwork, which can be problematic for the Division. The Commission's current rule also does not specify what happens to violators who are not required to restore resources (for example, contractors who are not also the property owner). Finally, the Commission's current rule uses the mandatory term "shall," which is inconsistent with the discretionary term "may" in NCGS § 113A-126. The Commission is therefore proposing to increase the time period before an NOA is sent from 30 to 90 days, adding language to distinguish cases where restoration is required from those where it is not required, and changing "shall" to "may."

- **07J .0409(f)(3)** under Civil Penalty Assessment: states that the notice [of civil penalty assessment] "... shall be delivered personally or by registered mail, return receipt requested." The Commission is proposing to amend this language to include only the two methods allowed for delivering Notices of Assessment under NCGS §113A-126, which are registered or certified mail, return receipt requested.

- **07J .0409(g)(4)(B) Schedule A Major Development Violations**, note (4) lists the "High Hazard Flood Area." The High Hazard Flood AEC was repealed by the Commission in September 2015.

- **07J .0409(g)(4)(B) Schedule B Minor Development Violations**, note (1) lists the "High Hazard Flood Area." The High Hazard Flood AEC was repealed by the Commission in September 2015.

COSTS OR NEUTRAL IMPACTS

NC Department of Transportation

Pursuant to G.S. 150B-21.4, the agency reports that the proposed amendments will not affect environmental permitting for the NC Department of Transportation (NCDOT).

Local Government

These amendments will have no impact on local governments. DCM does not expect any change in permits issued or the cost to secure permits.

Division of Coastal Management

The proposed rule changes do not change the types of activities that are subject to CAMA permitting, nor will they affect the number of permit applications submitted for development. There will be no impact on DCM permit receipts, and DCM does not anticipate any fiscal impacts.

COST/BENEFIT SUMMARY

The benefit of the rule change will be the increased timeframe for the Division of Coastal Management to assemble the necessary paperwork and work toward resolution of violations

while meeting the mandates of both §143B 279.16 and the Commissions interest in efficiently addressing Notices of Violation and Notices of Assessment.

15A NCAC 07J .0409 CIVIL PENALTIES

(a) Purpose and Scope. These Rules provide the procedures and standards governing the assessment, remission, settlement and appeal of civil penalties assessed by the Coastal Resources Commission and the Director pursuant to G.S. 113A-126(d).

(b) Definitions. The terms used herein shall be as defined in G.S. 113A-103 and as follows:

(1) "Act" means the Coastal Area Management Act of 1974, G.S. 113A-100 through 134, plus amendments.

(2) "Delegate" means the Director or other employees of the Division of Coastal Management, or local permit officers to whom the Commission has delegated authority to act in its stead pursuant to this Rule.

(3) "Director" means the Director, Division of Coastal Management.

(4) "Respondent" means the person to whom a notice of violation has been issued or against whom a penalty has been assessed.

(5) "Person" is defined in the Coastal Area Management Act, G.S. 113A-103(9).

(c) Civil penalties may be assessed against any person who commits a violation as provided for in G.S. 113A-126(d)(1) and (2).

(d) Investigative costs. Pursuant to G.S. 113A-126(d)(4a) the Commission or Director may also assess a respondent for the costs incurred by the Division for investigation, inspection, and monitoring associated with assessment the civil penalty. Investigative costs shall be in addition to any civil penalty assessed. For a minor development violation, investigative costs shall not exceed one-half of the amount of the civil penalty assessed or one thousand dollars ($1,000), whichever is less. For a major development violation, investigative costs shall not exceed one-half of the amount of the civil penalty assessed or two thousand five hundred dollars ($2,500), whichever is less. The Division shall determine the amount of investigative costs to assess based upon factors including the amount of staff time required for site visits, investigation, enforcement action, interagency coordination, and for monitoring restoration of the site.

(e) Notice of Violation. The Commission hereby authorizes employees of the Division of Coastal Management to issue in the name of the Commission notices of violation to any person engaged in an activity which constitutes a violation for which a civil penalty may be assessed. Such notices shall set forth the nature of the alleged violation, shall order that the illegal activity be ceased and affected resources be restored in accordance with 15A NCAC 07J .0410. The notice shall specify the time by which the restoration shall be completed as ordered by the Division. The notice shall be delivered ~~personally or~~ by registered or certified mail, return receipt requested.

(f) Civil Penalty Assessment.

(1) The Commission hereby delegates to the Director the authority to assess civil penalties according to the procedures set forth in Paragraph (g) of this Rule.

(2) If restoration of affected resources is not required, the ~~The~~ Director ~~shall~~ may issue a notice of assessment within ~~30~~ 90 days from the date of the Notice of Violation. If restoration of affected resources is required, the Director may issue a Notice of Assessment within 60 days after the Division determines that restoration of the adversely impacted resources is ~~complete.~~ complete or due date of restoration completion.

(3) The notice of assessment shall specify the reason for assessment, how the assessment was calculated, when and where payment shall be made, and shall inform the respondent of the right to appeal the assessment by filing a petition for a contested case hearing with the Office of Administrative Hearings pursuant to G.S. 150B-23. The notice shall be delivered ~~personally or~~ by registered or certified mail, return receipt requested.

(g) Amount of Assessment.

(1) Civil penalties shall not exceed the maximum amounts established by G.S. 113A-126(d).

(2) If any respondent willfully continues to violate by action or inaction any rule or order of the Commission after the date specified in a notice of violation, each day the violation continues or is repeated shall be considered a separate violation as provided in G.S. 113A-126(d)(2).

(3) In determining the amount of the penalty, the Commission or Director shall consider the factors contained in G.S. 113A-126(d)(4).

(4) Pursuant to Subparagraph (g)(3) of this Rule, penalties for major development violations, including violations of permit conditions, shall be assessed in accordance with the following criteria.

(A) Major development which could have been permitted under the Commission's rules at the time the notice of violation is issued shall be assessed a penalty equal to two times the relevant CAMA permit application fee, plus investigative costs.

(B) Major development which could not have been permitted under the Commission's rules at the time the notice of violation is issued shall be assessed an amount equal to the relevant CAMA permit application fee, plus a penalty pursuant to Schedule A of this Rule, plus investigative costs. If a violation affects more than one area of environmental concern

(AEC) or coastal resource as listed within Schedule A of this Rule, the penalties for each affected AEC shall be combined. Any structure or part of a structure that is constructed in violation of existing Commission rules shall be removed or modified as necessary to bring the structure into compliance with the Commission's rules.

SCHEDULE A
Major Development Violations

Size of Violation (sq. ft.)

Area of Environmental Concern Affected	≤ 100	101-500	501-1,000	1001-3000	3001-5000	5001-8000	8001-11,000	11,001-15,000	15,001-20,000	20,001-25,000	>25,000
Estuarine Waters or Public Trust Areas (1)	$250	$375	$500	$1,500	$2,000	$3,500	$5,000	$7,000	$9,000	$10,000	$10,000
Primary Nursery Areas	$100	$225	$350	$850	$1,350	$2,850	$4,350	$3,000	$1,000	n/a	n/a
Mudflats and Shell Bottom	$100	$225	$350	$850	$1,350	$2,850	$4,350	$3,000	$1,000	n/a	n/a
Submerged Aquatic Vegetation	$100	$225	$350	$850	$1,350	$2,850	$4,350	$3,000	$1,000	n/a	n/a
Coastal Wetlands	$250	$375	$500	$1,500	$2,000	$3,500	$5,000	$7,000	$9,000	$10,000	$10,000
Coastal Shorelines	$250	$350	$450	$850	$1,250	$2,450	$3,650	$5,250	$7,250	$9,250	$10,000
Wetlands (2)	$100	$200	$300	$700	$1,100	$2,300	$3,500	$4,750	$2,750	$750	n/a
ORW- Adjacent Areas	$100	$200	$300	$700	$1,100	$2,300	$3,500	$4,750	$2,750	$750	n/a
Ocean Hazard System (3)(4)	$250	$350	$450	$850	$1,250	$2,450	$3,650	$5,250	$7,250	$9,250	$10,000
Primary or Frontal Dune	$100	$200	$300	$700	$1,100	$2,300	$3,500	$4,750	$2,750	$750	n/a
Public Water Supplies (5)	$250	$350	$450	$850	$1,250	$2,450	$3,650	$5,250	$7,250	$9,250	$10,000
Natural and Cultural Resource Areas (6)	$250	$350	$450	$850	$1,250	$2,450	$3,650	$5,250	$7,250	$9,250	$10,000

(1) Includes the Atlantic Ocean from the normal high water mark to three miles offshore.

(2) Wetlands that are jurisdictional by the Federal Clean Water Act.

(3) If the AEC physically overlaps another AEC, use the greater penalty schedule.

(4) Includes the Ocean Erodible, ~~High Hazard Flood Area,~~ Inlet Hazard Area, and Unvegetated Beach Area.

(5) Includes Small Surface Water Supply, Watershed and Public Water Supply Well Fields.

(6) Includes Coastal Complex Natural Areas, Coastal Areas Sustaining Remnant Species, Unique Geological Formations, Significant Coastal Archaeological Resources, and Significant Coastal Historical Architectural Resources.

(C) Assessments for violations by public agencies (i.e. towns, counties and state agencies) shall be determined in accordance with Parts (g)(4)(A) and (B) of this Rule.

(D) Willful and intentional violations. The penalty assessed under Parts (g)(4)(A) and (B) of this Rule shall be doubled for willful and intentional violations except that the doubled penalties assessed under this Subparagraph shall not exceed ten thousand dollars ($10,000) or be less than two thousand dollars ($2,000) for each separate violation. A violation shall be considered to be willful and intentional when:

(i) The person received written instructions from one of the Commission's delegates that a permit would be required for the development and subsequently undertook development without a permit; or

(ii) The person received written instructions from one of the Commission's delegates that the proposed development was not permissible under the Commission's rules,

or received denial of a permit application for the proposed activity, and subsequently undertook the development without a permit; or

(iii) The person committed previous violations of the Commission's rules; or

(iv) The person refused or failed to restore a damaged area as ordered by one of the Commission's delegates. If necessary, the Commission or Division shall seek a court order to require restoration.

(E) Assessments against contractors. Any contractor or subcontractor or person or group functioning as a contractor shall be subject to a notice of violation and assessment of a civil penalty in accordance with Paragraph (f) of this Rule. Such penalty shall be in addition to that assessed against the landowner. When a penalty is being doubled pursuant to Part (g)(4)(D) and the element of willfulness is present only on the part of the contractor, the landowner shall be assessed the standard penalty and the contractor shall be assessed the doubled penalty.

(F) Continuing violations.

(i) Pursuant to G.S. 113A-126(d)(2), each day that the violation continues after the date specified in the notice of violation for the unauthorized activity to cease or restoration to be completed shall be considered a separate violation and shall be assessed an additional penalty.

(ii) Refusal or failure to restore a damaged area as ordered shall be considered a continuing violation and shall be assessed an additional penalty. When resources continue to be affected by the violation, the amount of the penalty shall be determined according to Part (g)(4)(B) of this Rule. The continuing penalty period shall be calculated from the date specified in the notice of violation for the unauthorized activity to cease or restoration to be completed and run until:

(I) the Division's order is satisfied, or

(II) the respondent enters into good faith negotiations with the Division, or

(III) the respondent contests the Division's order in a judicial proceeding by raising a justifiable issue of law or fact therein.

The continuing penalty period shall resume if the respondent terminates negotiations without reaching an agreement with the Division, fails to comply with court ordered restoration, or fails to meet a deadline for restoration that was negotiated with the Division.

(5) Pursuant to Subparagraph (g)(3) of this Rule, civil penalties for minor development violations, including violations of permit conditions, shall be assessed in accordance with the following criteria:

(A) Minor development which could have been permitted under the Commission's rules at the time the notice of violation is issued shall be assessed a penalty equal to two times the relevant CAMA permit application fee, plus investigative costs.

(B) Minor development which could not have been permitted under the Commission's rules at the time the notice of violation is issued shall be assessed an amount equal to the relevant CAMA permit application fee, plus a penalty pursuant to Schedule B of this Rule, plus investigative costs. If a violation affects more than one area of environmental concern (AEC) or coastal resource as listed within Schedule B of this Rule, the penalties for each affected AEC shall be combined. Any structure or part of a structure that is constructed in violation of existing Commission rules shall be removed or modified as necessary to bring the structure into compliance with the Commission's rules.

SCHEDULE B
Minor Development Violations

Size of Violation (sq. ft.)

Area of Environmental Concern Affected	≤ 100	101-500	501-1,000	1001-3000	3001-5000	5001-8000	8001-11,000	11,001 - 15,000	15,001 - 20,000	20,001 - 25,000	>25,000
Coastal Shorelines	$225	$250	$275	$325	$375	$450	$525	$625	$750	$875	$1,000
ORW- Adjacent Areas	$125	$150	$175	$225	$275	$350	$425	$375	$250	$125	n/a
Ocean Hazard System (1)(2)	$225	$250	$275	$325	$375	$450	$525	$625	$750	$875	$1,000
Primary or Frontal Dune	$125	$150	$175	$225	$275	$350	$425	$375	$250	$125	n/a
Public Water Supplies (3)	$225	$250	$275	$325	$375	$450	$525	$625	$750	$875	$1,000
Natural and Cultural Resource Areas (4)	$225	$250	$275	$325	$375	$450	$525	$625	$750	$875	$1,000

(1) Includes the Ocean Erodible, ~~High Hazard Flood Area,~~ Inlet Hazard Area, and Unvegetated Beach Area.

(2) If the AEC physically overlaps another AEC, use the greater penalty schedule.

(3) Includes Small Surface Water Supply, Watershed and Public Water Supply Well Fields.

(4) Includes Coastal Complex Natural Areas, Coastal Areas Sustaining Remnant Species, Unique Geological Formations, Significant Coastal Archaeological Resources, and Significant Coastal Historical Architectural Resources.

(C) Violations by public agencies (e.g. towns, counties and state agencies) shall be handled by the local permit officer or one of the Commission's delegates within their respective jurisdictions except that in no case shall a local permit officer handle a violation committed by the local government they represent. Penalties shall be assessed in accordance with Parts (g)(5)(A) and (B) of this Rule.

(D) Willful and intentional violations. The penalty assessed under Parts (g)(5)(A) and (B) of this Rule shall be doubled for willful and intentional violations except that the doubled penalties assessed under this Subparagraph shall not exceed one thousand dollars ($1,000.00) for each separate violation. A violation shall be considered to be willful and intentional when:

(i) The person received written instructions from the local permit officer or one of the Commission's delegates that a permit would be required for the development and subsequently undertook development without a permit; or

(ii) The person received written instructions from the local permit officer or one of the Commission's delegates that the proposed development was not permissible under the Commission's rules, or received denial of a permit application for the proposed activity, and subsequently undertook the development without a permit; or

(iii) The person committed previous violations of the Commission's rules; or

(iv) The person refused or failed to restore a damaged area as ordered by the local permit officer or one of the Commission's delegates. If necessary, a court order shall be sought to require restoration.

(E) Assessments against contractors. Any contractor or subcontractor or person or group functioning as a contractor shall be subject to a notice of violation and assessment of a civil penalty in accordance with Paragraph (f) of this Rule. Such penalty shall be in addition to that assessed against the landowner. When a penalty is being doubled pursuant to Part (g)(5)(D) and the element of willfulness is present only on the part of the contractor, the landowner shall be assessed the standard penalty and the contractor shall be assessed the doubled penalty.

(F) Continuing violations.

(i) Pursuant to G.S. 113A-126(d)(2), each day that the violation continues after the date specified in the notice of violation for the unauthorized activity to cease and restoration to be completed shall be considered a separate violation and shall be assessed an additional penalty.

(ii) Refusal or failure to restore a damaged area as ordered shall be considered a continuing violation and shall be assessed an additional penalty. The amount of the penalty shall be determined according to Part (g)(5)(B) of this Rule. The continuing penalty period shall be calculated from the date specified in the notice of violation for the unauthorized activity to cease and restoration to be completed and run until:

(I) the Commission delegate's order is satisfied, or

(II) the respondent enters into good faith negotiations with the local permit officer or the Division, or

(III) the respondent contests the local permit officer's or the Division's order in a judicial proceeding by raising a justiciable issue of law or fact therein.

The continuing penalty period shall resume if the respondent terminates negotiations without reaching an agreement with the local permit officer or the Division, fails to comply with court ordered restoration, or fails to meet a deadline for restoration that was negotiated with the local permit officer or the Division.

(h) Hearings and Final Assessment. Final decisions in contested case hearings concerning assessments shall be made by the Commission. The final decision shall be based on evidence in the official record of the contested case hearing, the administrative law judge's recommended decision, any exceptions filed by the parties and oral arguments. Oral arguments shall be limited to the facts in the official record.

(i) Referral. If any civil penalty as finally assessed is not paid, the Director on behalf of the Commission shall request the Attorney General to commence an action to recover the amount of the assessment.

(j) Reports to the Commission. Action taken by the Director shall be reported to the Commission at the next meeting. Such reports shall include information on the following:

(1) respondent(s) against whom penalties have been assessed;

(2) respondent(s) who have paid a penalty, requested remission, or requested an administrative hearing;

(3) respondent(s) who have failed to pay; and

(4) cases referred to the Attorney General for collection.

(k) Settlements. The Commission hereby delegates to the Director the authority to enter into a settlement of a civil penalty appeal at any time prior to decision in an administrative contested case hearing. Such settlements shall not require the approval of the Commission and shall not be considered a final Commission decision for purposes of G.S. 113A-123.

(l) Any settlement agreement proposed subsequent to a final Commission decision in the contested case shall be submitted to the Commission for approval.

History Note: *Authority G.S. 113A-124; 113A-126(d);*
Eff. January 24, 1980;
ARRC Objection August 18, 1988;
Amended Eff. January 1, 1989; November 1, 1986; November 1, 1984;
ARRC Objection Lodged Eff. January 18, 1991;
Amended Eff. February 1, 2008; July 1, 1991; June 1, 1991.

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
BRAXTON C. DAVIS
Director

NORTH CAROLINA
Environmental Quality

CRC-18-16

August 30, 2018

MEMORANDUM

TO: Coastal Resources Commission

FROM: Mike Lopazanski

SUBJECT: Periodic Review of Existing Rules - Fiscal Analysis & Re-adoption Schedule

You may recall from last year that the Division has completed the public comment phase of the review for 15A NCAC 7H, 7I, 7J, 7K, 7L and 7M as to their classification as either "necessary with substantive public interest," "necessary without substantive public interest" or "unnecessary." This review is in compliance with the General Assembly mandate for the "Periodic Review and Expiration of Existing Rules" section of the APA (G.S. § 150B-21.3A). The Division received six public comments, all supportive of the classification of the rules.

At the July 2017 meeting, the CRC accept the draft report, with no amendments, as final for submission to the Rules Review Commission (RRC). The RRC approved the report on January 25, 2018 and forwarded it to the Joint Legislative Administrative Procedure Oversight Committee (APOC) for consultation. The final determination on an agency's rules becomes effective when the APOC reviews the report or on the 61st day after having received the report from the RRC if the APOC does not meet. The APOC may disagree with the Commission's determination and recommend to the General Assembly that the agency conduct a review of the rule the following year. As the APOC did not meet, the classification of the rules has become final and your rules are now eligible for re-adoption.

Effect of Final Determination
Rules designated as "necessary without substantive public interest" will remain in the NC Administrative Code and rules designated as "unnecessary" will be removed. Rules designated as "necessary with substantive public interest" must be re-adopted as if they were new rules following the usual rulemaking procedures. If the rules are not re-adopted, they will be removed from the Administrative Code.

Schedule for Review of CRC Rules

With the APOC default approval of the report, the CRC may now publish the rules for public comment and begin the re-adoption process according a schedule negotiated with the RRC. Per the RRC rules, the Division can negotiate the schedule for re-adoption of rules depending on the number of rules and complexity of amendments. Given the frequency of amendments to the Commission's rules as a normal course of business, Staff is proposing a one-year re-adoption schedule with no rule amendments being proposed through this process. With the Commission's approval, Staff will prepare a notice of text and begin the 60-day public comment with the intent of having you re-adopt your rules at one of the first meetings in 2019. This will allow all of the rules to have the same re-adoption date and therefore be on the same schedule to repeat the Periodic Review Process in 10 years per the APA. Should public comment necessitate amendment of individual rules, the one-year schedule should allow adequate time to address any proposed changes.

As a reminder, 19 rules were classified as unnecessary due to the rules being old, no longer applicable, containing only introductory language, reiterating statute or generally superfluous. The majority of the rules (226 of 267) are designated as *Necessary With Substantive Public Interest* as they contain a directive, requirement or impose a standard. The remainder (22) have been designated as *Necessary Without Substantive Public Interest* as they contain management objectives, significance statements, are minor procedures or contact information.

Also attached is the accompanying fiscal analysis of the re-adoption. Since the proposed changes are administrative in nature, DCM does not believe that any regulated party will incur additional costs as a result of this action. The re-adoption does not require any affected party to take any specific action, and does not affect permitting costs nor add any additional regulatory burden.

These re-adoptions of the rules will have no impact on local governments. DCM does not expect any change in permits issued or the cost to secure permits.

Pursuant to G.S. 150B-21.4, the agency reports that the proposed re-adoption will not affect environmental permitting for the NC Department of Transportation (NCDOT).

The proposed re-adoption does not change the types of activities that are subject to CAMA permitting, nor will they affect the number of permit applications submitted for development. There will be no impact on DCM permit receipts, and DCM does not anticipate any fiscal impacts.

DCM anticipates the effective date of these rules to be May 1, 2019.

I will review the details of this process at our upcoming meeting in Wilmington.

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
BRAXTON C. DAVIS
Director

NORTH CAROLINA
Environmental Quality

September 4, 2018

MEMO TO: Coastal Resources Commission

FROM: Doug Huggett
Manager, Major Permits Section

SUBJECT: Major Permit Renewals (CRC-18-17)

As currently written, 15A NCAC 07J .0403 requires that all issued Major permits expire on December 31st of the third year following permit issuance. For example, all Major permits issued in 2018 carry an expiration date of December 31, 2021. 15A NCAC 07J .0404 allows for one relatively automatic 2-year permit renewal, with additional renewals available for projects where substantial development, either within or outside the Area of Environmental Concern, has begun and is continuing on a permitted project.

The number of active CAMA Major permits is growing each year, as new permits are issued and permits for existing long-term development projects (i.e. subdivisions, large-scale-commercial development, multi-phased beach nourishment projects, maintenance dredging projects) continue to be renewed. The expanding number of active projects is leading to ever-increasing work loads for Division staff, as the number of permit renewals that must be processed is increasing each year. The Division therefore suggests the Commission consider the following changes to the Rules governing permit renewals:

a) **Lengthen the initial expiration date for most new Major permits to five years from the date of permit issuance, as opposed to the current expiration dates of December 31st of the third year following permit issuance.** This rule change would benefit permittees by giving them more initial time to initiate or complete their projects. This lengthened expiration date would also reduce workloads of Division staff, who would not be required to process as many renewal requests each year. Finally, by changing the expiration date calculation to five years from the date of issuance, all permits would be valid for the same amount of time, as opposed to the current system whereby the amount of time a permit is active is dependent on when during a given year the permit is issued. For example, a new permit issued in early January of 2018 will be valid until December

31, 2021 or almost 4 full years, whereas a new permit issued in late December of 2018 will also be valid until December 31, 2021, or slightly more than three years.

b) **Lengthen the initial expiration date for publicly-sponsored, multi-phased beach nourishment and dredging projects, to 10 years from the date of permit issuance.** This rule change would acknowledge the multi-phased nature of these publicly sponsored projects, some of which are designed to be implemented for periods up to 50 years. The Division would then process future renewal requests for these projects under the existing provisions of 15A NCAC 07J .0404(b), which allow for renewals of up to 10 years for maintenance of previously approved projects.

c) **Eliminate the provisions of 15A NCAC 07J .0404(b), which allow for the circulation to commenting State agencies of renewal requests that otherwise do not otherwise meet the criteria for permit renewal.** Staff believe this provision is unworkable given the length of time some of these permits may have been active, possible alterations of site characteristics over the active life of the permit, and the lack of any defined criteria upon which to make a determination on whether or not to issue the renewal following agency re-circulation. In addition, the work involved in reviewing and compiling documentation that needs to be circulated to other state and federal agencies is, in many cases, similar to that required for the circulation of a new permit application.

SUBCHAPTER 7J - PROCEDURES FOR PROCESSING AND ENFORCEMENT OF MAJOR AND MINOR DEVELOPMENT PERMITS, VARIANCE REQUESTS, APPEALS FROM PERMIT DECISIONS, DECLARATORY RULINGS, AND STATIC LINE EXCEPTIONS

SECTION .0400 - FINAL APPROVAL AND ENFORCEMENT

15A NCAC 07J .0403 DEVELOPMENT PERIOD/COMMENCEMENT/CONTINUATION

(a) New dredge and fill permits and CAMA Major permits~~,~~ shall expire five years from the date of permit issuance, with the exception of publicly sponsored, multi-phased beach nourishment and dredging projects, which shall expire ten years from the date of permit issuance. Minor permits, except~~ing~~ those authorizing beach bulldozing ~~when authorized~~ through issuance of a CAMA minor permit, shall expire on December 31 of the third year following the year of permit issuance.

(b) CAMA minor permits ~~Pursuant to Subparagraph (a) of this Rule, a minor permit~~ authorizing beach bulldozing shall expire 30 days from the date of permit issuance ~~when issued to a property owner(s)~~. Following permit expiration, the ~~applicant~~ permit holder is entitled to request an extension in accordance with Rule .0404(a) of this Section.

(c) Development After Permit Expiration Illegal. Any development ~~done~~ undertaken after permit expiration shall be considered unpermitted and shall constitute a violation of G.S. 113A-118 or G.S. 113-229. Any development undertaken~~to be done~~ after permit expiration shall require either a new permit, or renewal of the original permit according to 15A NCAC 7J .0404 with the exception of Paragraph (e) of this Rule.

(d) Commencement of Development in Ocean Hazard AEC. No development shall begin until the oceanfront setback requirement can be established. When the possessor of a permit or a ruling of exception is ready to begin ~~construction~~ development, ~~he~~ they shall arrange a meeting with the appropriate permitting authority at the site to determine the oceanfront setback. This setback determination shall replace the one done at the time the permit was processed and approved and construction must begin within a period of 60 days from the date of that meeting. In the case of a major shoreline change within that period a new setback determination will be required before construction begins. Upon completion of the measurement, the permitting authority will issue a written statement to the permittee certifying the same.

(e) Continuation of Development in the Ocean Hazard AEC. Once development has begun under proper authorization, development in the Ocean Hazard AEC may continue beyond the authorized development period if, in the opinion of the permitting authority, substantial progress has been made and is continuing according to customary and usual building standards and schedules. In most cases, substantial progress begins with the placement of foundation pilings, and proof of the local building inspector's certification that the installed pilings have passed a floor and foundation inspection.

(f) Any permit that has been suspended ~~pursuant to G.S. 113A-121.1 as a result of a contested case petition or~~ by order of superior court for a period longer than six months shall be extended at the ~~applicant's~~ permit holder's written request for a period equivalent to the period of permit suspension, but not to exceed the development period authorized under Paragraphs (a) or (b) of this Rule.

(g) A~~n~~ ~~applicant~~ permit holder may voluntarily suspend development under an active permit that is the subject of judicial review by filing a written notice with the Department once the review has started. A~~n~~ ~~applicant~~ permit holder shall obtain an extension of said permit if the permitting authority finds:

(1) That the ~~applicant~~ permit holder notified the permitting authority in writing of the voluntary suspension;
(2) The period during which the permit had been subject to judicial review is greater than six months;
(3) The ~~applicant~~ permit holder filed a written request for an extension of the development period once the judicial review had been completed; and
(4) The ~~applicant~~ permit holder undertook no development after filing the notice of suspension. The period of permit extension shall be equivalent to the length of the judicial review proceeding, but not to exceed the development period authorized under Paragraph (a) of this Rule.

History Note: *Authority G.S. 113A-118;*
Eff. March 15, 1978;
Amended Eff. August 1, 2002; April 1, 1995; July 1, 1989; March 1, 1985; November 1, 1984.

15A NCAC 07J .0404 DEVELOPMENT PERIOD EXTENSION

(a) For CAMA minor permits authorizing beach bulldozing, the ~~applicant~~ permit holder is entitled to request a one-time 30 day permit extension. No additional extensions shall be granted after the 30 day extension has expired. Notwithstanding this Paragraph, the ~~applicant~~ permit holder is eligible to apply for another minor permit authorizing beach bulldozing following expiration of the 30 days permit extension.

(b) Where no development has been initiated during the development period, the permitting authority shall extend the authorized development period for no more than two years upon receipt of a signed and dated request from the ~~applicant~~ permit holder containing the following:

(1) a statement of the intention of the ~~applicant~~ permit holder to complete the work within a reasonable time;

(2) a statement of the reasons why the project will not be completed before the expiration of the current permit;

(3) a statement that there has been no change of plans since the issuance of the original permit other than changes that would have the effect of reducing the scope of the project, or, previously approved permit modifications;

(4) notice of any change in ownership of the property to be developed and a request for transfer of the permit if appropriate; and

(5) a statement that the project is in compliance with all conditions of the current permit.

Where substantial development, either within or outside the AEC, has begun and is continuing on a permitted project, the permitting authority shall grant as many two-year extensions as necessary to complete the initial development~~.~~, with the exception that publicly sponsored, multi-phased beach nourishment and dredging projects shall be granted ten-year extensions to allow for continued project implementation. For the purpose of this Rule, substantial development shall be deemed to have occurred on a project if the permittee can show that development has progressed beyond basic site preparation, such as land clearing and grading, and construction has begun and is continuing on the primary structure or structures authorized under the permit. For purposes of residential subdivision, installation of subdivision roads consistent with an approved subdivision plat shall constitute substantial development. Renewals for maintenance ~~and repairs~~ of previously approved projects may be granted for periods not to exceed 10 years.

~~(c) When an extension request has not met the criteria of Paragraph (b) of this Rule, the Department may circulate the request to the commenting state agencies along with a copy of the original permit application. Commenting agencies will be given three weeks in which to comment on the extension request. Upon the expiration of the commenting period the Department will notify the applicant promptly of its actions on the extension request.~~

(~~d~~c) Notwithstanding Paragraph~~s~~ (b) ~~and (c)~~ of this Rule, an extension request may be denied on making findings as required in either G.S. 113A-120 or G.S. 113-229(e). Changes in circumstances or in development standards shall be considered and applied to the maximum extent practical by the permitting authority in making a decision on an extension request.

(~~e~~d) The applicant for a major development extension request must submit, with the request, a check or money order payable to the Department in the sum of one hundred dollars ($100.00).

(~~f~~e) Modifications to extended permits may be considered pursuant to 15A NCAC 07J .0405.

History Note: *Authority G.S. 113A-119; 113A-119.1; 113A-124(c)(8);*
Eff. March 15, 1978;
Amended Eff. August 1, 2002; August 1, 2000; April 1, 1995; March 1, 1991; March 1, 1985; November 1, 1984.

NC COASTAL RESOURCES COMMISSION (CRC)
April 10-11, 2018
Sea Trail Convention Center
Sunset Beach, NC

Present CRC Members
Renee Cahoon, Chair
Neal Andrew, Vice-Chair

Larry Baldwin
Rick Catlin
Denise Gibbs
Robert High
Doug Medlin
Phil Norris
Russell Rhodes
Jamin Simmons
Bill White

Present CRAC Members
Greg Rudolph, Chair
Spencer Rogers, co-Vice Chair
Bobby Outten, co-Vice Chair
Candy Bohmert
John Brodman
Jett Ferebee
David Kellam
Johnny Martin
Ike McRee
Mike Moore
Kris Noble
Todd Roessler
Dave Weaver

Present from the Office of the Attorney General
Mary L. Lucasse

Present from the Department of Environmental Quality, Office of the General Counsel
Drew Hargrove

CALL TO ORDER/ROLL CALL
Renee Cahoon called the meeting to order at 3:15 p.m. on April 10, 2018 reminding the Commissioners of the need to state any conflicts due to Executive Order Number 34 and the State Government Ethics Act. The State Government Ethics Act mandates that at the beginning of each meeting the Chair remind all members of their duty to avoid conflicts of interest and inquire as to whether any member knows of a conflict of interest or potential conflict with respect to matters to come before the Commission. If any member knows of a conflict of interest or a potential conflict of interest, please state so when the roll is called.

Angela Willis called the roll. Greg Lewis was absent. Larry Baldwin stated he would recuse himself from the Hunter Variance Request (CRC VR 18-02). Based upon this roll call Chair Cahoon declared a quorum.

CHAIR COMMENTS

Chair Cahoon thanked Dare County for the use of their facility. Statements of Economic Interest are due to the State Ethics Commission by April 16. There will not be a July CRC meeting. If we have variances that need to be heard; we can have a phone conference to discuss those subject to the open meetings law. This decision is based on the high cost of travel.

Neal Andrew stated the Masonboro Island Coastal Reserve and existing oyster leases were discussed at the last meeting. Since that time there have been additional meetings and conversations regarding the existing oyster leases and The Natural Heritage Program's claim that it has jurisdiction over Masonboro Island Reserve. It is my opinion that jurisdiction over the oyster leases at Masonboro Island should be with DEQ and DCM. We met with DEQ and DNCR in Raleigh and have had preliminary meetings with some of the members of the General Assembly from southeastern North Carolina to discuss ways to clarify who has jurisdiction over the Coastal Reserve sites. The Natural Heritage Program rules are similar to the rules that reside within the Coastal Reserve so there seems to be some duplication. Rebecca has been working with the Natural Heritage Program to update a Memorandum of Understanding about who is going to manage and have jurisdiction over the sites.

VARIANCES

Hunter (CRC VR 18-02), Ocean Isle Beach, 30' Buffer
Drew Hargrove, Esq./Debbie Wilson; Todd Roessler, Esq.
***Larry Baldwin recused himself from discussion or voting on this variance request.*
Debbie Wilson gave an overview of the site. Drew Hargrove, DEQ General Counsel, represented DCM staff and stated petitioner West Hunter owns property in Ocean Isle Beach. The property is adjacent to a manmade canal on two sides. The property is within the Coastal Shorelines AEC. Therefore, the first 30' landward from normal high water is subject to the Commission's 30-foot buffer rule which limits impervious surfaces and development within the buffer. Petitioner applied for a CAMA Minor Permit to construct a two-story piling supported residence. The Ocean Isle Beach LPO denied petitioner's permit application as a portion of the proposed house extended into the 30-foot buffer along the south side of the lot contrary to 15A NCAC 7H .0209(f)(10). Mr. Hargrove reviewed the stipulated facts of this variance request and stated staff and petitioner agree on all four statutory criteria which must be met to grant the variance request.

Todd Roessler, Esq. represented the petitioner and stated Petitioner is requesting two variances. The first is a request to vary the requirement of seeking a variance from the local government before asking for a variance from the Commission. The second seeks relief from the 30-foot buffer since strict application of this rule would only leave a 16-foot wide building footprint. Petitioner has proposed installing an engineered stormwater system on the lot.

Neal Andrew made a motion to grant a variance from the procedural requirement of seeking a local variance. Phil Norris seconded the motion. The motion passed unanimously (High, Catlin, Medlin, Andrew, Cahoon, Simmons, Rhodes, White, Norris, Gibbs).

Neal Andrew made a motion that petitioner has shown that strict application of the development rules, standards, or orders issued by the Commission cause the petitioner an unnecessary hardship. Phil Norris seconded the motion. The motion passed unanimously (High, Catlin, Medlin, Andrew, Cahoon, Simmons, Rhodes, White, Norris, Gibbs).

Neal Andrew made a motion that petitioner has shown that hardships result from conditions peculiar to the property. Phil Norris seconded the motion. The motion passed unanimously (High, Catlin, Medlin, Andrew, Cahoon, Simmons, Rhodes, White, Norris, Gibbs).

Neal Andrew made a motion that petitioner has shown that hardships do not result from actions taken by petitioner. Phil Norris seconded the motion. The motion passed unanimously (High, Catlin, Medlin, Andrew, Cahoon, Simmons, Rhodes, White, Norris, Gibbs).

Neal Andrew made a motion that petitioner has shown that the variance request will be consistent with the spirit, purpose, and intent of the rules, standards, or orders issued by the Commission; will secure the public safety and welfare; and preserve substantial justice. The variance request should be conditioned to include the four standard stormwater conditions. Bill White seconded the motion. The motion passed unanimously (High, Catlin, Medlin, Andrew, Cahoon, Simmons, Rhodes, White, Norris, Gibbs).

This variance request was granted.

Sackett (CRC VR 18-03), Nags Head, Oceanfront Setback
Drew Hargrove, Esq./Yvonne Carver; Charles Evans, Esq.
Yvonne Carver gave an overview of the site. Drew Hargrove, DEQ General Counsel, represented staff and stated petitioner Dean Sacket owns a residence in South Nags Head. The property is located within the Commission's Ocean Hazard Area of Environmental Concern. This area of Nags Head is subject to the static line following a large-scale beach nourishment project in 2011. Petitioner filed a CAMA Minor Permit application seeking to construct a 72.33 square foot addition to the bottom floor of the piling-supported residence under an existing covered porch. The Town of Nags Head LPO denied petitioner's CAMA Minor Permit application as the proposed addition does not meet the applicable 105' setback from the static line. Mr. Hargrove reviewed the stipulated facts of this variance request and stated staff and petitioners disagree on all four statutory criteria which must be met to grant the variance.

Charles Evans represented the petitioners and reviewed the stipulated facts which petitioners contend support the granting of this variance request.

Neal Andrew made a motion that petitioner has shown that strict application of the applicable development rules, standards, or orders issued by the Commission cause the petitioner unnecessary hardships. Bill White seconded the motion. The motion passed with ten votes in favor (High, Catlin, Medlin, Baldwin, Andrew, Simmons, Rhodes, White, Norris, Gibbs) and one opposed (Cahoon).

Neal Andrew made a motion that petitioner has shown that hardships result from conditions peculiar to the petitioner's property. Bill White seconded the motion. The motion passed with ten votes in favor (High, Catlin, Medlin, Baldwin, Andrew, Simmons, Rhodes, White, Norris, Gibbs) and one opposed (Cahoon).

Neal Andrew made a motion that petitioner has shown that hardships do not result from actions taken by the petitioner. Bill White seconded the motion. The motion passed with ten votes in favor (High, Catlin, Medlin, Baldwin, Andrew, Cahoon, Simmons, White, Norris, Gibbs) and one opposed (Rhodes).

Neal Andrew made a motion that petitioner has shown the variance request will be consistent with the spirit, purpose and intent of the rules, standards, or orders issued by the Commission; will secure the public safety and welfare; and preserve substantial justice. Bill White seconded the motion. The motion passed with ten votes in favor (High, Catlin, Medlin, Baldwin, Andrew, Simmons, Rhodes, White, Norris, Gibbs) and one opposed (Cahoon).

This variance request was granted.

LEGAL UPDATES

Update on Litigation of Interest to the Commission
Mary Lucasse
Mary Lucasse, CRC Counsel, reviewed the CRC and DCM cases which are currently active.
(handout provided and available from DCM)

MINUTES

Neal Andrew made a motion to approve the minutes of the February 2018 Coastal Resources Commission meeting. Larry Baldwin seconded the motion. The motion passed unanimously (Cahoon, Andrew, Baldwin, Catlin, Gibbs, High, Medlin, Norris, Rhodes, Simmons, White).

ACTION ITEMS

Fiscal Analysis 7H .0308, .1704, .1705 Temporary Erosion Control Structures (CRC 18-11)
Mike Lopazanski
Mike Lopazanski stated the Commission has approved proposed amendments to the rules governing the use of temporary erosion control structures. The fiscal analysis indicates that there will be a cost savings from this action derived from the delayed costs associated with the removal of sandbags and the elimination of the requirement to plant vegetation on top of covered bags. The fiscal analysis has been approved by DEQ and OSBM.

Doug Medlin made a motion to approve the fiscal analysis for 15A NCAC 7H .0308, 7H .1704, and 7H .1705 for public hearing. Larry Baldwin seconded the motion. The motion passed unanimously (High, Catlin, Medlin, Baldwin, Andrew, Cahoon, Simmons, Rhodes, White, Norris, Gibbs).

EXECUTIVE SECRETARY'S REPORT

Braxton Davis, DCM Director, gave the following report:

It is good to be back in Dare County. I spent some time yesterday with our esteemed chair and then with the mayors of Duck, Kitty Hawk and Nags Head. I was also able to tour NC-12 and meet with officials from the National Park Service and US Fish and Wildlife Service to discuss current and future issues and opportunities for improved coordination across our programs. I plan to continue meeting with local officials, stakeholders, and agency partners in different locations along the coast this year, to learn how DCM can do a better job in addressing issues that are unique to each region. I will now review some highlights since your last meeting:

FEDERAL BUDGET

Last month, Congress passed a spending bill that allotted $75M for state coastal management programs nationwide, a $5M increase over FY17 levels. You may recall the funding support letter the Commission sent to the NC Congressional Delegation last fall, which was greatly appreciated. Our congressional delegation has been very supportive of the NC coastal program and the federal coastal management program in general. We are proud to have this kind of support for our program both locally and nationally, and we will keep you posted as the FY19 budget begins to take shape.

REGULATORY

On the regulatory side of DCM, we are continuing to work on several beach and inlet management-related projects, including coordination of the permit application package for the Bogue Banks programmatic long-term oceanfront shoreline management project. We have also continued to work with our partners at the Department of Transportation's Ferry Division to respond to some serious shoaling issues at some of their ferry facilities. Division staff are also meeting with DOT later this week to discuss some longer-term solutions for the ferry facility at the north end of Ocracoke Island. Notable permit actions since your last meeting include the issuance of a permit to the Town of Nags Head to carry out a beach nourishment project that is of a similar scope and scale to their very successful 2011 nourishment project, and the issuance of a permit to the Village of Bald Head to place material dredged from Jay Bird Shoals along sections of their oceanfront beaches. Additionally, the Division granted a one-time federal consistency determination to the U.S. Army Corps of Engineers to perform maintenance dredging outside of established dredge windows of the Wilmington Harbor outer bar, with the dredged material to be placed along the beachfront on Caswell Beach and Oak Island. In this case, the Corps did not receive acceptable bids for the project the during the original bid process late last year. The Corps therefore requested they be allowed to carry out the project during the 2018 summer moratoria. Following significant agency coordination, the one-time request was approved. In an effort to avoid this situation in the future, we are in the process of setting up a meeting with the Corps, DOT, and other interested state and federal agencies to discuss potential long-term solutions that can help avoid or minimize the need for future dredging outside the traditional environmental windows in NC.

POLICY & PLANNING

Offshore Energy Update

The Division continued to work with the Department and Governor's Office on activities related to the DOI 2019-2024 Draft Proposed Oil and Gas Leasing Program. At the end of February, DCM staff participated in a BOEM open house in Raleigh, where we answered attendee questions regarding the state's role in reviewing OCS activities. Staff also provided information and assisted in the review of the Governor's comment letter on the Draft Proposed Program, which was transmitted to BOEM on March 9th.

Land Use Plans

The Division received two requests, one from The Town of Beaufort and the other from Perquimans County/Town of Hertford/Town of Winfall (joint LUP), for certification of amendments to land use plans under the Commission's recent delegation of authority. On March 5, 2018, the Division granted both requests for certification based on its finding that the plans met the substantive requirements outlined within the Commission's 7B Land Use Planning Requirements; there are no conflicts evident with either state or federal law or the State's Coastal Management Program; and the elected bodies of the Towns provided opportunity for the public to provide written comment following local adoption of the plan as required by N.C.G.S. § 113A-110 and 15A NCAC 7B .0802 and .0803.

Public Access Grants Program

DCM has received 21 applications from 19 local governments requesting $2.8 million in funding from the Public Beach and Coastal Waterfront Access Program. DCM has approximately $1 million available for access projects during this fiscal year. Local governments whose proposals are selected will be notified by Wednesday, May 9th, to submit a Final Application with more detailed project information. Prior to submitting a Final Application, the local government is required to hold a public meeting or hearing to discuss its proposal and consider comments prior to its decision to submit a Final Application for state funds. Final Applications are anticipated to be due on or before 5 p.m. on Monday, Aug. 13, 2018. All final applicants will be notified in September whether their project has been selected for funding.

Coastal Reserves

- **Summer Camps** Registration ongoing, **Promoting Living Shorelines for Erosion Control – A Workshop for Real Estate Professionals** (04/13, Beaufort), **5th Annual Terrapin Tally Training** (04/14, Masonboro)
- **Earth Day Events:** The Reserve will be joining the Crystal Coast Earth Day celebrations at Fort Macon, Atlantic Beach (04/21), the Wilmington Earth Day Festival (04/22), and OBX Earth Fair in Nags Head (04/22)
- **Spring Community Paddle** (04/27): Join the reserve staff for a paddle to the Masonboro Island Reserve for an evening of fun and education! Equipment is available for rental, see the Reserve website for more details and registration.
- **Sea Turtle Volunteer Info Session & Training** (05/01): The Reserve is hosting an informational session and training for all who are interested in volunteering for the 2018 sea turtle nesting season on Masonboro Island Reserve.
- **Local Advisory Committees:** Spring local advisory committee meetings will be held in May (check Reserve website and Division press releases for info)

- **Partnership agreements:** The Reserve is currently updating a number of its partnership agreements, including developing a new agreement with the Natural Heritage Program to more explicitly outline how the Reserve and Heritage Program work together to manage the complementary Reserve and State Nature Preserve designations.
- **2018 NCSG-NCCR & NERR Coastal Research Fellow**: NC Sea Grant, the Reserve and Division co-sponsor a graduate research fellowship each year for a student to conduct work within the sites of the Coastal Reserve. The 2018 fellow is Chris Moore, a doctoral student in Biology at East Carolina University. Under the advisement of Dr. April Blakeslee, Chris will be evaluating the success of shoreline stabilization practices in restoring biodiversity.
- The Reserve's spring **Tidal Flat newsletter** coming out in May.

Staffing News

We are excited to welcome Amanda Cannon as our receptionist in the Morehead City office. Amanda and her family live in Havelock and she has had administrative experience working for several local businesses in the Morehead City area. Our NOAA Coastal Management Fellow, Monica Gregory, is rapidly approaching the end of her time with DCM. Monica has been working on an innovative resiliency evaluation and needs assessment project with five of our local governments. She has done an outstanding job in designing a process that engaged local government staff and residents, and presented many of her results to the CRAC yesterday. This is Monica's last CRC meeting as she moves on to her new position as a coastal advocate with the nonprofit 100 Miles, in Savannah GA, in May. We greatly appreciate her work for the NC Coastal Management Program, and wish her the best as she continues her career. Finally, Sean Farrell, a field representative in our Wilmington regional office, has accepted a position with the Department of Transportation. We are going to miss Sean, but also wish him the best in his new position. We are in the process of advertising for a replacement for Sean's position.

CRAC UPDATE

Rudi Rudolph stated the CRAC requests a speaker be lined up to speak regarding GenX. This would provide clarity on what it is, how and why it's getting into the water, and who is taking the lead on addressing it. The CRAC also reviewed and discussed rules regarding existing, public stormwater outfalls. The CRAC is recommending draft language for the Commission's consideration that allows a local government or the State to rebuild within the existing footprint of the existing stormwater outfall. This will eliminate the need to go through the major permit process.

Chair Cahoon stated a GenX presentation could be scheduled for the September CRC meeting.

Tancred Miller presented the rule amendments to the ocean outfall rules and stated these amendments are based on a request for relief from the current rules to allow the extension of stormwater outfalls. The current rules do not allow new construction seaward of the vegetation line. The Commission asked the Advisory Council to look at amending the existing rules to allow the extension of ocean outfalls. The CRAC proposes revisions to the current rules to allow local and state government through the Major Permit process and would allow outfalls to be extended and not require an additional permit to maintain the outfall within the original footprint.

Neal Andrew made a motion to approve the amendments to the ocean outfall rules for public hearing. Denise Gibbs seconded the motion. The motion passed unanimously (High, Catlin, Medlin, Baldwin, Andrew, Cahoon, Simmons, Rhodes, White, Norris, Gibbs).

BEACH AND INLET MANAGEMENT

Inlet Hazard Areas (CRC 18-12)

Mike Lopazanski

Mike Lopazanski stated the Inlet Hazard Area of Environmental Concern (AEC) is part of the Ocean Hazard AEC. These geographic areas are vulnerable to the effects of sand, wind, water, and waves. Properties located along these shorelines are at an increased risk from erosion. The Inlet Hazard Area boundaries are referenced in a report from 1978 in 7H .0304. These maps were adopted by the Commission in 1978 and amended in 1981, but have not been changed since that time. The IHA AEC is based on aerial photography. The Commission re-evaluated IHAs because the inlet areas were dramatically difference than that of the oceanfront. Ultimately the CRC decided upon a statistical approach looking at past shorelines. During the public hearings, there was a lot of criticism over the statistical approach. The Commission included setbacks from the first line of vegetation and kept density restrictions, but applied the erosion rate from the adjacent Ocean Erodible Area. There has been legislative interest in the Inlet Hazard Areas and in 2012 the Commission was directed to study the feasibility of creating a new AEC for lands adjacent to the mouth of the Cape Fear River. In 2014, the Legislature removed the Inlet Hazard Area designation for any inlet that had been closed for more than 15 years which applied to Mad Inlet. The CRC removed this area from the Inlet Hazard designations. The Legislation also addressed providing access to State Ports. The Commission conducted a comprehensive Inlet Management Study which included stakeholder input, local governments, the dredging industry, USACE and geologists. The Science Panel is currently working on the Inlet Hazard Area boundaries and a deep draft port management navigation based inlet management area of environmental concern is working its way through the rulemaking process. We have met with the Army Corps of Engineers which resulted in beach bulldozing being allowed below mean high water. The current rules for the IHA require development be set back from the first line of vegetation by using the erosion rate from the adjacent ocean erodible area, density is restricted in the IHAs, and new dunes in the inlet hazard areas are prohibited. When the maps, based on the Science Panel's recommendations, come to the Commission; the Commission will need to consider development standards within these areas. The Science Panel is delineating an area of inlet influence which is larger than the areas originally depicted in the 1978 study.

CRC Science Panel IHA Delineation Update (CRC 18-13)

Ken Richardson

Ken Richardson stated in 2016, the Commission issued a Scope of Work to the Science Panel to do three things: develop a methodology for calculating the shoreline change rate; look at the oceanfront shoreline and determine where the transition point is between the inlet processes dominating the location of the shoreline versus the oceanfront; and provide the Commission with an updated set of maps and recommendations. There are a lot of challenges when looking at inlets. There needs to be a methodology that captures the migrating and oscillating inlets. The maps should be ready for presentation to the Commission in September. The Science Panel is looking at a hybrid vegetation line which represents a composite of the most landward position of the vegetation line. The Panel has looked at 50 years of data. The shoreline change rates will

use a linear regression methodology. Some of the statistical data that we are getting will allow us to use standard deviation and find the point along the shoreline where the inlet processes no longer dominate the oceanfront processes. There is also a 30- and 90-year risk line. This was developed by the Science Panel because there was discussion on zoning the inlet hazard area. The Science Panel will identify in their report where expert or professional judgment has been used to define the boundaries. In summary, the analysis has been done, the maps are ready for the Science Panel's review, and at the next Science Panel meeting the Panel should be able to approve and make recommendations to the Commission at the September meeting.

Sea Grant has been working on a web based program to demonstrate the changes that inlets have gone through over time. Spencer Rogers stated the site can be accessed at: goncsu.edu/inletatlas. The "time machine" has a customized list of inlets in North Carolina. These are time lapsed photographs of every inlet in North Carolina between 1984 and 2016.

State Port Inlet Management AECs (CRC 18-14)
Heather Coats

Heather Coats stated the Commission approved this AEC at the September 2016 meeting. However, legislation was passed in 2017 that changed the General Assembly's prior direction on temporary erosion control structures. Since this legislation could impact the utility of this AEC, the Commission put its work on this AEC on hold until the temporary erosion control amendments were finalized. In 2012, legislation was passed that directed the CRC to study the feasibility of creating a new AEC for lands adjacent to the Cape Fear River. The Commission was directed to identify regulatory concerns and strategies for creating a more efficient regulatory framework for this area. The final decision of the Commission was to recognize that there are issues that were identified at the Cape Fear Inlet, but that these issues may also apply to other inlets. The recommendation from the Commission was to take a more inclusive study of all inlets. The results of the inlet management study identified short and long-term priorities. One recommendation was the development of a new AEC for the State's two deep-draft inlets. During this time, legislation was passed to remove these inlets from the Inlet Hazard Area designations. DCM met with the local governments adjacent to these two inlets to identify their priorities for the rules changes. Staff drafted rules based on the Commission's objectives and local government input which included beneficial use of dredged materials requiring sand to go onto the beach or the nearshore area. The draft rules were sent to the local governments, the Army Corps of Engineers, State Ports Authority, Fort Macon and the National Park Service. Almost immediately we heard back from the Army Corps of Engineers regarding the beneficial use component of the rule. There was a lot of concern about unanticipated impacts from creating this rule. It was decided to create a working group to establish cost-sharing agreements between the Corps, local governments, and the State. For the boundaries, Carteret County proposed the inlet hazard areas as the AEC boundaries with the waterward extent including the ebb tidal delta. Caswell Beach felt the boundary should include Caswell Beach in its entirety and would terminate at the tower off Fort Caswell. Bald Head Island wanted the AEC to include all of South Beach. If the Commission approves the rule language and maps, then the next step will be the development of the fiscal analysis.

Larry Baldwin stated that State government should be added to 7H .0313(b) and (c) to allow the same activities as local governments.

Neal Andrew made a motion to approve the rule language and maps for the State Port Inlet Management AEC, with the addition of "State Government" in 7H .0313, for public hearing. Phil Norris seconded the motion. The motion passed unanimously (High, Catlin, Medlin, Baldwin, Andrew, Cahoon, Simmons, Rhodes, White, Norris, Gibbs).

Review of Ocean Hazard AEC Setback Line (CRC 18-15)
Ken Richardson

Ken Richardson stated the Ocean Erodible Area by definition is the area where there exists a possibility of excessive erosion and significant shoreline fluctuation. This area is calculated by multiplying the setback factor times 90. On the oceanfront, there are many lines to consider in the management of oceanfront development. Setbacks are not determined by the shoreline change rate at each individual transect. Additional data processing is required in order to establish setback factors. Raw shoreline change rate data are smoothed using a 17-point running average. Smoothing effectively filters out shore-term dynamic shoreline phenomena such as beach cusps. Smoothed raw data are then blocked. Per CRC rules, the minimum setback factor is two feet per year. Transects with erosion values less than two feet per year are assigned a blocked rate value of two. Construction setback is measured landward from the first line of stable and natural vegetation, or the static vegetation line, whichever is applicable. The setback is based on the size of the structure and the erosion rate. Building in accordance with setbacks does not guarantee that the ocean will never threaten a structure, but it reduces the risk of property loss, reduces the encroachment of development onto public beaches, and can reduce the amount of tax money spent responding to problems that are exacerbated by poorly sited development. Where that has been no beach fill, the setback is measured from the first line of stable and natural vegetation using the graduated setback. Where there has been a beach fill project of less than 300,000 cubic yards, the setback is also measured from the first line of stable and natural vegetation using the graduated setback. Where a beach fill project was greater than 300,000 cubic yards the static vegetation line prevails. With a static vegetation line, the community can measure setbacks from the static vegetation line, or the CRC can approve a static line exception, or a development line. In determining which reference feature should be used to measure the setback, first ask if the community has a static vegetation line. If the answer is no, then measure from the first line of stable and natural vegetation. When beach fill projects are maintained there is a possibility that vegetation could grow seaward of the static vegetation line. In these cases, the CRC can grant a static vegetation line exception. The community must provide the CRC with a 30-year plan to maintain the initial beach fill project. The CRC reauthorizes these exceptions every five years. When the static vegetation line is applied, no portion of new construction can be oceanward of the landward most adjacent structure. No pools can be oceanward of the static vegetation line and structures greater than 5,000 square feet must meet the minimum setback of 120 feet or 60-times the shoreline erosion rate at the time of permit issuance whichever is greater. The development line is not the same as the static line exception. It is not used as a reference feature to measure setbacks. It is a line established by local government representing the seaward-most allowable location of oceanfront development. In areas that have development lines approved by the CRC, the vegetation line or measurement line shall be used as the reference point for measuring oceanfront setbacks instead of the static vegetation line. In no case shall new habitable development be sited oceanward of the development line and in no case shall the development line be created or established below the mean high water line. The setback

distance is determined by both the size of the development and the long-term erosion rate using the graduated setback. The static line exception provision that allows structures greater than 5,000 square feet to measure the setback based on 60-times the erosion rate cannot be used where a development line exists. Development line requests apply to the entire large-scale project area and can be extended to include an entire town's oceanfront jurisdiction. The development line utilizes the adjacent neighbor's site line approach and where development is not linear, an average line of construction may be used on a case-by-case basis. In no case, can a development line be established seaward of the seaward-most structure. Existing structures seaward of the development line may not be replaced if damaged more than 50 percent and the static vegetation line still applies to pools as they cannot be placed oceanward of the static line.

Hwy 12/Bonner Bridge/Hatteras Island Nourishment Projects Update
Jerry Jennings, NCDOT Division 1 Engineer

Jerry Jennings stated from Kitty Hawk to Ocracoke there are historical hot spots, a few new areas of concern and three active projects: Bonner Bridge, Pea Island Bridge, and Rodanthe Bridge. The Bonner Bridge replacement bridge crosses Oregon Inlet immediately to the west of the existing bridge. The existing Bonner Bridge opened in 1963. Planning for the replacement of the bridge began in 1990. A contract was awarded to replace the bridge in 2011. There was a legal challenge and then a settlement agreement was reached to replace the bridge in 2015. Construction of the new bridge began in March 2016. The current bridge only has one navigation span with a width of 130 feet and the new bridge will have nine navigation spans each with about 300 feet in length. The new bridge uses a lot of precast concrete elements and will be barged or trucked to the site. It is almost completely stainless reinforcing steel and high durability concrete to protect against corrosion to provide a longer life. The work trestle on the north end of the bridge will be 6,300 feet in length. The demotion material from the old bridge will be used at offshore reef sites and a portion of the existing bridge will be retained at the south end. Another unique facet of this project is the SAV mitigation reef. As part of the bridge project we are impacting SAV and in order to mitigate for those impacts, this structure was constructed in the Sound to create a 50-acre wave shadow to provide habitat for SAV. The bridge project is about 79% contractually complete and about 68% of the onsite construction is completed. Some of the activities at the site are taking place 24 hours per day. The bridge is scheduled to open in late 2018 and the contract completion date, to include demolition of the old bridge, should be completed by fall 2019.

The Pea Island Bridge is 4-5 miles south of Bonner Bridge, located in the historical area of New Inlet. A breach formed during Hurricane Irene in August 2011 and a 660-foot steel bridge was constructed. Further damage occurred during Hurricane Sandy in October 2012 and planning began for a long-term solution. A contract was awarded in November 2015 and includes ½ mile long concrete structure. Onsite construction began in March 2016. The bridge opened to traffic in November 2017 and was named the Captain Richard Etheridge Bridge. The bridge is complete except for some final paving and paving marks.

The Rodanthe Bridge is also known as Mirlo Beach Bridge or S-Turns. This is a hot spot that has been a problem for years. A breach formed during Hurricane Irene in August 2011. The roadway was reconstructed and sandbags were placed. There was further damage from Hurricane Sandy in October 2012. A beach nourishment project was completed in September 2014, but there has

been extensive overwash during the recent nor'easters. Planning for a long-term solution has been underway for several years. The preferred alternative was selected in June 2015 and a Record of Decision was approved in December 2015. This preferred alternative is a 2.4-mile jug handle design. A contract was awarded in January 2017 and design and permitting are currently underway. Onsite construction will begin in summer 2018 with completion scheduled by 2020.

In Kitty Hawk, there are several projects to install or extend sandbags, reconstruct dunes, and rebuild roadway. The recent beach nourishment by the Town and County has provided significant protection to the roadway. The recent nor'easters caused minimal problems. The Canal Area and Birdwatcher Area have merged into one large site extending over three miles. The dunes are very unstable and have minimal vegetation. The combination of windblown sand and overwash are impacting the roadway, but there has been no pavement damage. This area requires almost continuous maintenance to keep sand off of the roadway and flooding of the roadway occurs regularly when overwash or heavy rain is trapped inside the dunes. This area is within the scope of the Bonner Bridge, but no project is currently funded. The area south of Avon Pier is becoming an emerging problem. Impacts to NC 12 have been limited to flooding to date due to the distance from the ocean. Overwash is overwhelming the existing drainage infrastructure along NC 12. The greatest impacts are to secondary roads and private properties east of NC 12. Buxton is a historical hot spot and a feasibility study was completed in 2016. A wide range of options were evaluated. No projects are currently funded in our transportation plan. The recent Dare County beach nourishment project provided a significant benefit to this area. There are soundside concerns southward towards Canadian Hole. We will coordinate with DCM and the National Park Service regarding options available. This is a very narrow part of the island. Hatteras Village is another historical hot spot and a feasibility study was completed in 2016. A wide range of options have been evaluated, but there are no projects currently funded in the transportation plan. There were minimal impacts from the recent weather events. With the exception of some dune maintenance this area has remained fairly stable with relatively minimal problems since Hurricane Isabel in 2003. A feasibility study was completed for Ocracoke in 2016 and a wide range of options were evaluated, but no projects are currently funded under the transportation plan. The biggest challenge here is that there is very little distance between the road and the ocean. Dune maintenance continues with the compatible sand from ferry dredge spoil site when needed and available. The Ocracoke South Dock is a new problem related to the ongoing changes with Hatteras Inlet. Short term improvements include sandbags and relocation and reconstruction of pavement. The Ferry Division has some planned dredging of some of the channel blockages in the area, and we are looking at some longer-term options that may be available. There are currently no projects funded in the current transportation plan. Progress is being made on Highway 12 and we appreciate the partnership and cooperation that we get from the Division of Coastal Management.

PUBLIC INPUT AND COMMENT

Dave Dawson of the Cape Hatteras Motel thanked Dare County for the recent beach nourishment and discussed beach stabilization options and the advantages of having a flat beach versus a dune.

OLD/NEW BUSINESS

Jamin Simmons stated he had a conversation with Ray Tooley, Hyde County, and the issue is not about CAMA rules, but upstream hydraulic trespass that would need some legislative action. Hyde County residents would appreciate a letter of support from the Commission.

Chair Cahoon appointed Mike Lopazanski as hearing officer for the public hearings.

PUBLIC HEARINGS

15A NCAC 7H .0308 Specific Use Standards & 7K .0103 Maintenance and Repair (Dune Rules)

Mike Lopazanski stated these amendments will offer flexibility in the ways that oceanfront sand dunes are maintained and managed and how accessways are constructed. These amendments require that sand remain on a lot to the maximum extent practicable, allow distribution of sand to the crest of a frontal dune, allow removal of sand from around structures provided it remains in the Ocean Hazard AEC, allow accessways to cross frontal dunes, preserve the volume of dunes while allowing access.

Steve Smith, Topsail Beach Commissioner, commented on Topsail Beach's concerns regarding the dune rules.
Cliff Ogburn, Nags Head Town Manager, commented on the improvements made in the amendments regarding Hatteras Ramps.

15A NCAC 7K .0208 Single Family Residences Exempted (LPO Authority)

These amendments correct the inconsistency with other exemptions and with the EMC's coastal stormwater rules.
No comments received.

15A NCAC 7H .0209 Coastal Shorelines (Stormwater Correction)

These amendments correct a conflict between the CRC's coastal shorelines rules and the EMC's coastal stormwater rules.
No comments received.

15A NCAC 7B .0802 Public Hearing and Local Adoption Requirements & 7B .0803 Certification and Use of the Plan (CRC Delegation of Certification)

These amendments streamline the land use plan certification process and delegates certification authority to the Division Director.
No comments received.

With no further business, the CRC adjourned.
Respectfully submitted,

Braxton Davis, Executive Secretary

Angela Willis, Recording Secretary

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
BRAXTON C. DAVIS
Director

NORTH CAROLINA
Environmental Quality

September 4, 2018

MEMORANDUM **CRC-18-20**

TO: Coastal Resources Commission

FROM: Ken Richardson, *Shoreline Management Specialist*

SUBJECT: Ocean Erodible AEC and Setback Factor Update Study based on Long-term Average Annual Shoreline Change Rates

Background

Since 1980, the Division of Coastal Management has updated its oceanfront shoreline change rates approximately once every five years for calculating both oceanfront development setbacks (setback factors), and the landward boundary of the Ocean Erodible Area of Environmental Concern (15A NCAC 07H .0306 and 07H .0304). The last update became effective on January 31, 2013 and is now due to be updated.

Additionally, shoreline change rates are required to be updated every five years to keep North Carolina compliant with Federal Emergency Management Administration (FEMA) guidelines for the Community Rating System (CRS). This ensures that property owners in coastal communities that participate in the National Flood Insurance Program are eligible for fifty (50) additional CRS points, which can reduce insurance rates.

The Commission setback rules are used to site oceanfront development based on the size of the structure. In places where there is a high rate of erosion, buildings must be located farther from the shoreline than in places where there is less erosion. The construction setback equation depicted in Table 1 is used to site oceanfront development and determine the extent of the CRC's jurisdictional are for the Ocean Erodible Area of Environmental Concern (OEA) - the area where there is a substantial possibility of excessive shoreline erosion. A minimum factor of two (2) is applied if the erosion rate is less than two feet per year (see Table 1). This method of siting oceanfront development was initially established by the Coastal Resources Commission (CRC) in 1979.

***Table 1**. This table demonstrates an example of minimum construction setback based on structure size and minimum setback factor of 2.*

Structure Size (square feet)	Construction Setback Equation	Minimum Setback (calculated using Setback Factor = 2 ft./yr.)
Less than 5,000	30 x Setback Factor	60
=>5,000 and < 10,000	60 x Setback Factor	120
=>10,000 and < 20,000	65 x Setback Factor	130
=>20,000 and < 40,000	70 x Setback Factor	140
=>40,000 and < 60,000	75 x Setback Factor	150
=>60,000 and < 80,000	80 x Setback Factor	160
=>80,000 and < 100,000	85 x Setback Factor	170
Greater than 100,000	90 x Setback Factor	180

Overview of 2018 Shoreline Change Update Study

Setback Factors are based on the average annual long-term shoreline change rates calculated using the end-point methodology. This technique of calculating shoreline change rates is consistent with earlier studies and the results can be compared to those from previous studies. Applying the end-point method to the 2018 update study used the earliest (1933-1962) and most current shoreline (2016) to calculate change rates by measuring distance between the two shorelines (shore-transect intersect) and dividing by time. Raw shoreline change rates are statistically "smoothed and blocked" with neighboring transects to group adjacent shoreline segments that have similar rates into segments that can be assigned a single erosion rate. A "segment" of shoreline is defined as a portion of beach with statistically similar erosion rates and a minimum length of approximately 1,300 feet (400 meters). The mean shoreline change rate for a segment of beach serves as the Ocean Hazard Area Setback Factor.

The 2018 statewide mean shoreline change rate is equal to -2 feet per year (measured erosion), which is consistent with previous studies. Although the 2018 calculated setback factors show similar trends compared to the overall average of all the past six studies (Table 2), there was a slight erosion rate increase for portions of the coastline north of Cape Lookout, resulting in an increase in the average statewide setback factor. More specifically, erosion rate increases were identified at those areas adjacent to inlets and capes, and along the National Seashore. The following table illustrates a statewide comparison of shoreline length and setback factors for all six studies (1980-2018):

Table 2. *This table illustrates a comparison of oceanfront Setback Factors (SBF) that were calculated using long-term average annual shoreline change rates. Values show the length of shoreline (miles and %) for categorized setback factors (far-left column). Total shoreline mileage is the length of shoreline analyzed and should not be interpreted as a "shrinking" or "expanding" shoreline. Of the 304.5 miles, 2 miles of shoreline was considered to have "no data," meaning that only one shoreline was available.*

Erosion Rate Studies	2016	2011	2003	1992	1986	1980
Miles (total)	**304.5**	307.4	312	300	237	245
SBF = 2	**175.1 (57.5)**	190.2 (61.9%)	193 (62%)	165 (59%)	144 (61%)	149 (61%)
SBF = 2.5 to 5	**66.5 (21.8%)**	62.1 (20.2%)	64 (20%)	54 (19%)	43 (18%)	52 (21%)
SBF = 5.5 to 8	**38.2 (12.6%)**	31.5 (10.2%)	28 (9%)	30 (11%	20 (8%)	22 (9%)
SBF > 8	**22.6 (7.4%)**	20.8 (6.8%)	27 (9%)	32 (11%)	22 (9%)	22 (9%)

Of the 304.5 miles of oceanfront shoreline analyzed, results show that approximately 69 percent of the shoreline is experiencing some degree of erosion, while 30 percent is accreting either due to beach nourishment or natural processes. Of the eroding portions of shoreline, 22.7 percent is eroding at rates less than two feet per year, while 22.9 percent is eroding between two and five feet per year (Table 3).

Table 3. *This table illustrates a summary of length of shoreline (and percentage) and calculated shoreline change rates. The first row shows approximately 92 miles of oceanfront shoreline with measured accretion; the second row shows approximately 210 miles with measured erosion; and then subsequent rows show a breakdown of erosion from the total length of shoreline with measured erosion (210 miles).*

Shoreline Change Rate Summary:	Miles	%
Accretion (all)	91.6	30.1%
Erosion (all)	209.5	68.8%
Erosion 2ft/Year or Less (>0, <=2)	69.3	22.7%
Erosion 2 to 5 Feet/Year (>2, <=5)	69.7	22.9%
Erosion 5 to 8 Feet Year (>5, <=8)	42.8	14.1%
Erosion More Than 8 Feet/Year	27.6	9.1%
Data Gaps (missing shoreline segment)	1.9	0.6%

Next Steps

The 2018 update study is currently being finalized by DCM staff and will be presented, along with the fiscal analysis, at the November 2018 CRC meeting in Atlantic Beach. At that time, DCM staff will ask for the Commission's approval to begin the rule-making process. It is anticipated that updated setback factors will go into effect in the summer or fall of 2019.
No action required at the September 2018 meeting.

Appendix A: CRC's Rules Pertaining to Oceanfront Shoreline Change Rates and Setback Factors

15A NCAC 07H .0304 AECS WITHIN OCEAN HAZARD AREAS

The ocean hazard AECs contain all of the following areas:

(1) Ocean Erodible Area. This is the area where there exists a substantial possibility of excessive erosion and significant shoreline fluctuation. The oceanward boundary of this area is the mean low water line. The landward extent of this area is the distance landward from the first line of stable and natural vegetation as defined in 15A NCAC 07H .0305(a)(5) to the recession line established by multiplying the long-term annual erosion rate times 90; provided that, where there has been no long-term erosion or the rate is less than two feet per year, this distance shall be set at 120 feet landward from the first line of stable natural vegetation. For the purposes of this Rule, the erosion rates are the long-term average based on available historical data. The current long-term average erosion rate data for each segment of the North Carolina coast is depicted on maps entitled "2011 Long-Term Average Annual Shoreline Rate Update" and approved by the Coastal Resources Commission on May 5, 2011 (except as such rates may be varied in individual contested cases or in declaratory or interpretive rulings). In all cases, the rate of shoreline change shall be no less than two feet of erosion per year. The maps are available without cost from any Local Permit Officer or the Division of Coastal Management on the internet at http://www.nccoastalmanagement.net.

(2) Inlet Hazard Area. The inlet hazard areas are natural-hazard areas that are especially vulnerable to erosion, flooding, and other adverse effects of sand, wind, and water because of their proximity to dynamic ocean inlets. This area extends landward from the mean low water line a distance sufficient to encompass that area within which the inlet migrates, based on statistical analysis, and shall consider such factors as previous inlet territory, structurally weak areas near the inlet, and external influences such as jetties and channelization. The areas on the maps identified as suggested Inlet Hazard Areas included in the report entitled INLET HAZARD AREAS, The Final Report and Recommendations to the Coastal Resources Commission, 1978, as amended in 1981, by Loie J. Priddy and Rick Carraway are incorporated by reference and are hereby designated as Inlet Hazard Areas, except for:

(a) the Cape Fear Inlet Hazard Area as shown on the map does not extend northeast of the Bald Head Island marina entrance channel; and

(b) the former location of Mad Inlet, which closed in 1997.

In all cases, the Inlet Hazard Area shall be an extension of the adjacent ocean erodible areas and in no case shall the width of the inlet hazard area be less than the width of the adjacent ocean erodible area. This report is available for inspection at the Department of Environmental Quality, Division of Coastal Management, 400 Commerce Avenue, Morehead City, North Carolina or at the website referenced in Item (1) of this Rule. Photocopies are available at no charge.

(3) Unvegetated Beach Area. Beach areas within the Ocean Hazard Area where no stable natural vegetation is present may be designated as an Unvegetated Beach Area on either a permanent or temporary basis as follows:

(a) An area appropriate for permanent designation as an Unvegetated Beach Area is a dynamic area that is subject to rapid unpredictable landform change due to wind and wave action. The areas in this category shall be designated following studies by the Division of Coastal Management. These areas shall be designated on maps approved by the Coastal Resources Commission and available without cost from any Local Permit Officer or the Division of Coastal Management on the internet at the website referenced in Item (1) of this Rule.

(b) An area that is suddenly unvegetated as a result of a hurricane or other major storm event may be designated by the Coastal Resources Commission as an Unvegetated Beach Area for a specific period of time, or until the vegetation has re-established in accordance with

15A NCAC 07H .0305(a)(5). At the expiration of the time specified or the re-establishment of the vegetation, the area shall return to its pre-storm designation.

History Note: *Authority G.S. 113A-107; 113A-107.1; 113A-113; 113A-124;*
Eff. September 9, 1977;
Amended Eff. December 1, 1993; November 1, 1988; September 1, 1986; December 1, 1985;
Temporary Amendment Eff. October 10, 1996;
Amended Eff. April 1, 1997;
Temporary Amendment Eff. October 10, 1996 Expired on July 29, 1997;
Temporary Amendment Eff. October 22, 1997;
Amended Eff. July 1, 2016; September 1, 2015; May 1, 2014; February 1, 2013; January 1, 2010; February 1, 2006; October 1, 2004; April 1, 2004; August 1, 1998.

15A NCAC 07H .0306 GENERAL USE STANDARDS FOR OCEAN HAZARD AREAS

(a) In order to protect life and property, all development not otherwise specifically exempted or allowed by law or elsewhere in the Coastal Resources Commission's rules shall be located according to whichever of the following is applicable:

(1) The ocean hazard setback for development shall be measured in a landward direction from the vegetation line, the static vegetation line, or the measurement line, whichever is applicable.

(2) In areas with a development line, the ocean hazard setback shall be set in accordance with Subparagraphs (a)(3) through (9) of this Rule. In no case shall new development be sited seaward of the development line.

(3) In no case shall a development line be created or established on state owned lands or oceanward of the mean high water line or perpetual property easement line, whichever is more restrictive.

(4) The ocean hazard setback shall be determined by both the size of development and the shoreline long term erosion rate as defined in Rule .0304 of this Section. "Development size" is defined by total floor area for structures and buildings or total area of footprint for development other than structures and buildings. Total floor area includes the following:

(A) The total square footage of heated or air-conditioned living space;

(B) The total square footage of parking elevated above ground level; and

(C) The total square footage of non-heated or non-air-conditioned areas elevated above ground level, excluding attic space that is not designed to be load-bearing.

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

(5) With the exception of those types of development defined in 15A NCAC 07H .0309, no development, including any portion of a building or structure, shall extend oceanward of the ocean hazard setback. This includes roof overhangs and elevated structural components that are cantilevered, knee braced, or otherwise extended beyond the support of pilings or footings. The ocean hazard setback shall be established based on the following criteria:

(A) A building or other structure less than 5,000 square feet requires a minimum setback of 60 feet or 30 times the shoreline erosion rate, whichever is greater;

(B) A building or other structure greater than or equal to 5,000 square feet but less than 10,000 square feet requires a minimum setback of 120 feet or 60 times the shoreline erosion rate, whichever is greater;

(C) A building or other structure greater than or equal to 10,000 square feet but less than 20,000 square feet requires a minimum setback of 130 feet or 65 times the shoreline erosion rate, whichever is greater;

(D) A building or other structure greater than or equal to 20,000 square feet but less than 40,000 square feet requires a minimum setback of 140 feet or 70 times the shoreline erosion rate, whichever is greater;

(E) A building or other structure greater than or equal to 40,000 square feet but less than 60,000 square feet requires a minimum setback of 150 feet or 75 times the shoreline erosion rate, whichever is greater;

(F) A building or other structure greater than or equal to 60,000 square feet but less than 80,000 square feet requires a minimum setback of 160 feet or 80 times the shoreline erosion rate, whichever is greater;

(G) A building or other structure greater than or equal to 80,000 square feet but less than 100,000 square feet requires a minimum setback of 170 feet or 85 times the shoreline erosion rate, whichever is greater;

(H) A building or other structure greater than or equal to 100,000 square feet requires a minimum setback of 180 feet or 90 times the shoreline erosion rate, whichever is greater;

(I) Infrastructure that is linear in nature, such as roads, bridges, pedestrian access such as boardwalks and sidewalks, and utilities providing for the transmission of electricity, water, telephone, cable television, data, storm water, and sewer requires a minimum setback of 60 feet or 30 times the shoreline erosion rate, whichever is greater;

(J) Parking lots greater than or equal to 5,000 square feet require a setback of 120 feet or 60 times the shoreline erosion rate, whichever is greater;

(K) Notwithstanding any other setback requirement of this Subparagraph, a building or other structure greater than or equal to 5,000 square feet in a community with a static line exception in accordance with 15A NCAC 07J .1200 requires a minimum setback of 120 feet or 60 times the shoreline erosion rate in place at the time of permit issuance, whichever is greater. The setback shall be measured landward from either the static vegetation line, the vegetation line, or measurement line, whichever is farthest landward; and

(L) Notwithstanding any other setback requirement of this Subparagraph, replacement of single-family or duplex residential structures with a total floor area greater than 5,000 square feet, and commercial and multi-family residential structures with a total floor area no greater than 10,000 square feet, shall be allowed provided that the structure meets the following criteria:

(i) the structure was originally constructed prior to August 11, 2009;

(ii) the structure as replaced does not exceed the original footprint or square footage;

(iii) it is not possible for the structure to be rebuilt in a location that meets the ocean hazard setback criteria required under Subparagraph (a)(5) of this Rule;

(iv) the structure as replaced meets the minimum setback required under Part (a)(5)(A) of this Rule; and

(v) the structure is rebuilt as far landward on the lot as feasible.

(6) If a primary dune exists in the AEC on or landward of the lot where the development is proposed, the development shall be landward of the crest of the primary dune, the ocean hazard setback, or development line, whichever is farthest from vegetation line, static vegetation line, or measurement line, whichever is applicable. For existing lots, however, where setting the development landward of the crest of the primary dune would preclude any practical use of the lot, development may be located oceanward of the primary dune. In such cases, the development may be located landward of the ocean hazard setback, but shall not be located on or oceanward of a frontal dune or the development line. The words "existing lots" in this Rule shall mean a lot or tract of land that, as of June 1, 1979, is specifically described in a recorded plat and cannot be enlarged by combining the lot or tract of land with a contiguous lot or tract of land under the same ownership.

(7) If no primary dune exists, but a frontal dune does exist in the AEC on or landward of the lot where the development is proposed, the development shall be set landward of the frontal dune, ocean hazard setback, or development line, whichever is farthest from the vegetation line, static vegetation line, or measurement line, whichever is applicable.

(8) If neither a primary nor frontal dune exists in the AEC on or landward of the lot where development is proposed, the structure shall be landward of the ocean hazard setback or development line, whichever is more restrictive.

(9) Structural additions or increases in the footprint or total floor area of a building or structure represent expansions to the total floor area and shall meet the setback requirements established in this Rule and 15A NCAC 07H .0309(a). New development landward of the applicable setback may be cosmetically, but shall not be structurally, attached to an existing structure that does not conform with current setback requirements.

(10) Established common law and statutory public rights of access to and use of public trust lands and waters in ocean hazard areas shall not be eliminated or restricted. Development shall not encroach upon public accessways, nor shall it limit the intended use of the accessways.

(11) Development setbacks in areas that have received large-scale beach fill as defined in 15A NCAC 07H .0305 shall be measured landward from the static vegetation line as defined in this Section, unless a development line has been approved by the Coastal Resources Commission in accordance with 15A NCAC 07J .1300.

(12) In order to allow for development landward of the large-scale beach fill project that cannot meet the setback requirements from the static vegetation line, but can or has the potential to meet the setback requirements from the vegetation line set forth in Subparagraphs (a)(1) and (a)(5) of this Rule, a local government, group of local governments involved in a regional beach fill project, or qualified "owners' association" as defined in G.S. 47F-1-103(3) that has the authority to approve the locations of structures on lots within the territorial jurisdiction of the association and has jurisdiction over at least one mile of ocean shoreline, may petition the Coastal Resources Commission for a "static line exception" in accordance with 15A NCAC 07J .1200. The static line exception shall apply to development of property that lies both within the jurisdictional boundary of the petitioner and the boundaries of the large-scale beach fill project. This static line exception shall also allow development greater than 5,000 square feet to use the setback provisions defined in Part (a)(5)(K) of this Rule in areas that lie within the jurisdictional boundary of the petitioner, and the boundaries of the large-scale beach fill project. If the request is approved, the Coastal Resources Commission shall allow development setbacks to be measured from a vegetation line that is oceanward of the static vegetation line under the following conditions:

(A) Development meets all setback requirements from the vegetation line defined in Subparagraphs (a)(1) and (a)(5) of this Rule;

(B) Development setbacks shall be calculated from the shoreline erosion rate in place at the time of permit issuance;

(C) No portion of a building or structure, including roof overhangs and elevated portions that are cantilevered, knee braced, or otherwise extended beyond the support of pilings or footings, extends oceanward of the landward-most adjacent building or structure. When the configuration of a lot precludes the placement of a building or structure in line with the landward-most adjacent building or structure, an average line of construction shall be determined by the Division of Coastal Management on a case-by-case basis in order to determine an ocean hazard setback that is landward of the vegetation line, a distance no less than 30 times the shoreline erosion rate or 60 feet, whichever is greater;

(D) With the exception of swimming pools, the development defined in Rule .0309(a) of this Section shall be allowed oceanward of the static vegetation line; and

(E) Development shall not be eligible for the exception defined in Rule .0309(b) of this Section.

(b) No development shall be permitted that involves the removal or relocation of primary or frontal dune sand or vegetation thereon that would adversely affect the integrity of the dune. Other dunes within the ocean hazard area shall not be disturbed unless the development of the property is otherwise impracticable. Any disturbance of these other dunes shall be allowed only to the extent permitted by 15A NCAC 07H .0308(b).

(c) Development shall not cause irreversible damage to historic architectural or archaeological resources as documented by the local historic commission, the North Carolina Department of Natural and Cultural Resources, or the National Historical Registry.

(d) Development shall comply with minimum lot size and set back requirements established by local regulations.

(e) Mobile homes shall not be placed within the high hazard flood area unless they are within mobile home parks existing as of June 1, 1979.

(f) Development shall comply with the general management objective for ocean hazard areas set forth in 15A NCAC 07H .0303.

(g) Development shall not interfere with legal access to, or use of, public resources, nor shall such development increase the risk of damage to public trust areas.

(h) Development proposals shall incorporate measures to avoid or minimize adverse impacts of the project. These measures shall be implemented at the applicant's expense and may include actions that:

(1) minimize or avoid adverse impacts by limiting the magnitude or degree of the action;

(2) restore the affected environment; or

(3) compensate for the adverse impacts by replacing or providing substitute resources.

(i) Prior to the issuance of any permit for development in the ocean hazard AECs, there shall be a written acknowledgment from the applicant to the Division of Coastal Management that the applicant is aware of the risks associated with development in this hazardous area and the limited suitability of this area for permanent structures.

The acknowledgement shall state that the Coastal Resources Commission does not guarantee the safety of the development and assumes no liability for future damage to the development.

(j) All relocation of structures shall require permit approval. Structures relocated with public funds shall comply with the applicable setback line and other applicable AEC rules. Structures, including septic tanks and other essential accessories, relocated entirely with non-public funds shall be relocated the maximum feasible distance landward of the present location. Septic tanks shall not be located oceanward of the primary structure. All relocation of structures shall meet all other applicable local and state rules.

(k) Permits shall include the condition that any structure shall be relocated or dismantled when it becomes imminently threatened by changes in shoreline configuration as defined in 15A NCAC 07H .0308(a)(2)(B). Any such structure shall be relocated or dismantled within two years of the time when it becomes imminently threatened, and in any case upon its collapse or subsidence. However, if natural shoreline recovery or beach fill takes place within two years of the time the structure becomes imminently threatened, so that the structure is no longer imminently threatened, then it need not be relocated or dismantled at that time. This permit condition shall not affect the permit holder's right to seek authorization of temporary protective measures allowed pursuant to 15A NCAC 07H .0308(a)(2).

History Note: *Authority G.S. 113A-107; 113A-113(b)(6); 113A-124;*
Eff. September 9, 1977;
Amended Eff. December 1, 1991; March 1, 1988; September 1, 1986; December 1, 1985;
RRC Objection due to ambiguity Eff. January 24, 1992;
Amended Eff. March 1, 1992;
RRC Objection due to ambiguity Eff. May 21, 1992;
Amended Eff. February 1, 1993; October 1, 1992; June 19, 1992;
RRC Objection due to ambiguity Eff. May 18, 1995;
Amended Eff. August 11, 2009; April 1, 2007; November 1, 2004; June 27, 1995;
Temporary Amendment Eff. January 3, 2013;
Amended Eff. September 1, 2017; February 1, 2017; April 1, 2016; September 1, 2013.

15A NCAC 07J .0210 REPLACEMENT OF EXISTING STRUCTURES

Replacement of structures damaged or destroyed by natural elements, fire or normal deterioration is considered development and requires CAMA permits. Replacement of structures shall be permitted if the replacements is consistent with current CRC rules. Repair of structures damaged by natural elements, fire or normal deterioration is not considered development and shall not require CAMA permits. The CRC shall use the following criteria to determine whether proposed work is considered repair or replacement.

(1) NON-WATER DEPENDENT STRUCTURES. Proposed work is considered replacement if the cost to do the work exceeds 50 percent of the market value of an existing structure immediately prior to the time of damage or the time of request. Market value and costs are determined as follows:

(a) Market value of the structure does not include the value of the land, value resulting from the location of the property, value of accessory structures, or value of other improvements located on the property. Market value of the structure shall be determined by the Division based upon information provided by the applicant using any of the following methods:

(i) appraisal;

(ii) replacement cost with depreciation for age of the structure and quality of construction; or

(iii) tax assessed value.

(b) The cost to do the work is the cost to return the structure to its pre-damaged condition, using labor and materials obtained at market prices, regardless of the actual cost incurred by the owner to restore the structure. It shall include the costs of construction necessary to comply with local and state building codes and any improvements that the owner chooses to construct. The cost shall be determined by the Division utilizing any or all of the following:

(i) an estimate provided by a North Carolina licensed contractor qualified by license to provide an estimate or bid with respect to the proposed work;

(ii) an insurance company's report itemizing the cost, excluding contents and accessory structures; or

(iii) an estimate provided by the local building inspections office.

(2) WATER DEPENDENT STRUCTURES. The proposed work is considered replacement if it enlarges the existing structure. The proposed work is also considered replacement if:

(a) in the case of fixed docks, piers, platforms, boathouses, boatlifts, and free standing moorings, more than 50 percent of the framing and structural components (beams, girders, joists, stringers, or pilings) must be rebuilt in order to restore the structure to its pre-damage condition. Water dependent structures that are structurally independent from the principal pier or dock, such as boatlifts or boathouses, are considered as separate structures for the purpose of this Rule;

(b) in the case of boat ramps and floating structures such as docks, piers, platforms, and modular floating systems, more than 50 percent of the square feet area of the structure must be rebuilt in order to restore the structure to its pre-damage condition;

(c) in the case of bulkheads, seawalls, groins, breakwaters, and revetments, more than 50 percent of the linear footage of the structure must be rebuilt in order to restore the structure to its pre-damage condition.

History Note: *Authority G.S. 113A-103(5)b.5.; 113A-107(a),(b);*
Eff. July 1, 1990;
Amended Eff. August 1, 2007.

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
BRAXTON C. DAVIS
Director

NORTH CAROLINA
Environmental Quality

September 4, 2018

MEMORANDUM **CRC-18-24**

TO: Coastal Resources Commission

FROM: Ken Richardson, *Shoreline Management Specialist*

SUBJECT: CRC Science Panel Inlet Hazard Area (IHA) Delineation Update

Background:

The establishment of Areas of Environmental Concern (AEC) is authorized under the NC Coastal Area Management Act (CAMA) of 1974 (NCGS 113A-100 et seq.) and forms the foundation of the North Carolina Coastal Resources Commission's (CRC) permitting program for regulating coastal development. Specific rules defining three specific ocean hazard AECs appear in 15A NCAC 07H.0300: 1) Ocean Erodible, 2) Inlet Hazard, and 3) Unvegetated Beach AECs. The inlet hazard area (IHA) AEC is defined in 15A NCAC 07H.0301(3) as locations that "are especially vulnerable to erosion, flooding and other adverse effects of sand, wind, and water because of their proximity to dynamic ocean inlets."

Unlike other CRC jurisdictional areas, IHA boundaries are defined in a report referenced in 7H.0304(2). The current IHA boundaries correspond to maps originally developed by Priddy and Carraway (1978) for all the State's then-active inlets, which were adopted by the CRC in 1979, with minor amendments in 1981.

IHA boundaries in use today are based on statistical analysis (and to a lesser extent previous inlet location) of historical shoreline movement identified on multiple aerial photo sets. In most cases, the statistical methods used in the 1978 study identified the landward-most shoreline position (99% confidence interval) projected to occur between 1978 and 1988.Originally, the Commission anticipated that these boundaries were to be updated at the end of the 1980s. However, due to a combination of factors, that update did not occur.

It was not until the late 1990s, after the CRC's Science Panel on Coastal Hazards was formed, that the need to update IHAs became more of a focal point of discussion. The following is a summarized timeline leading up to 2018:

- **1998-1999:** the newly-formed Science Panel recommended to the CRC that the IHAs were outdated and should be updated. The Science Panel recommended that DCM hire staff to work on inlet hazards data collection and analysis.

- **November 2002:** DCM hired a Coastal Hazards GIS Specialist to support all oceanfront and inlet data collection, mapping, and analysis efforts.

- **2004-2008:** data collection and mapping in preparation for updating IHAs. DCM worked extensively with the Science Panel to develop inlet delineation methodologies.

- **2009:** DCM synthesized data and study results into a report.

- **May & July 2010**: DCM presented proposed IHA boundary update to the CRC.

- **2010-2012**: Given the concern over the increased size of the proposed IHAs, there were many questions about IHA rules, and if "risk" was the same for all areas within the proposed IHAs. Because there were unanswered questions related to IHA development standards, in addition to several key issues consuming much of the Commission's and Science Panel's time (terminal groin study and oceanfront erosion rate update study), the IHA boundary update was temporarily put on hold.

- **2012**: The General Assembly directed the CRC to study the feasibility of creating a new AEC for the lands adjacent to the mouth of the Cape Fear River. Session Law 2012-202 required the CRC to consider the unique coastal morphologies and hydrographic conditions of the Cape Fear River region, and to determine if action is necessary to preserve, protect, and balance the economic and natural resources of this region through the elimination of current overlapping AECs by incorporating appropriate development standards into one single AEC unique to this location. During this study, the CRC found that while the Cape Fear River inlet did present a unique set of challenges, other inlets may have similar issues. The Commission therefore decided to undertake a comprehensive review of inlet-related issues and with the expectation of developing additional management tools that would allow the CRC to more proactively address the issues confronted by local governments in these dynamic areas.

- **February 2014**: The CRC asked the Science Panel to review a recommendation to remove IHA status from Mad Inlet, which had been naturally closed for some time. From this effort, the Panel made two recommendations that were presented to the CRC: 1) Mad Inlet was not at risk of reopening so IHA status should be removed; and, 2) current IHAs were severely out of date and needed to be updated.

- **September 2014**: DCM presented a report to the Commission that was prepared following a series of stakeholder meetings, entitled, "NC Coastal Resources Commission Inlet Management Study Findings and Policy Options." Stakeholders made several recommendations to the CRC that pertained specifically to IHAs: 1) The CRC should task the Science Panel to complete the development of methods to define revised IHAs and potential inlet and near-inlet setback lines for CRC review; and, 2) The IHAs should be eliminated and incorporated into the Ocean Erodible Area (OEA) while applying the same development standards currently utilized in the OEA.

- **May 2016**: staff proposed to the CRC to pick up work on the IHAs, and to update inlet shoreline change rates that were presented in 2010 – CRC unanimously approved.

- **July 2016**: At the CRC meeting in Beaufort, the Commission issued the following scope of work to the Science Panel:

    1) **Develop a methodology for calculating inlet shoreline change rates:** The Science Panel chose the linear regression method to measure shoreline change at inlets. This method incorporates multiple shorelines, versus the end-point method currently used on the oceanfront which only uses two shorelines (early and current). Inlet shoreline changes rates have not historically been used for determining construction setbacks at inlets.

    2) **Re-evaluate points along the oceanfront shoreline where inlet processes no longer influence shoreline position:** When the Science Panel first started working on updating IHA boundaries in 2005, the Panel evaluated changes in shoreline position over time to determine the location along the shoreline where inlet-related processes no longer have a dominant influence on the shoreline's position.

    3) **Present results at a CRC Meeting.**

Summary of Current Inlet Hazard Area Rules:

In 1981, the Commission began to recognize that inlet areas were more hazardous than the rest of the oceanfront, noting that out of the 70 structures impacted by erosion, 60 were near inlets. In addition to setbacks from the first line of stable and natural vegetation, the Commission included density restrictions, lot- and structure-size limits, a public access provision, a prohibition on beach bulldozing and the creation of new dunes, and a prohibition on permanent erosion control structures outside of public projects. Current IHA rules have remained relatively unchanged since adoption in 1981. The following is a summary of rules specific to IHAs:

1. **15A NCAC 07H .0304** (AECs Within Ocean Hazard Areas):
    - the Inlet Hazard Area shall be an extension of the adjacent ocean erodible areas and in no case shall the width of the inlet hazard area be less than the width of the adjacent ocean erodible area.

2. **15A NCAC 07H .0310** (Use Standards for Inlet Hazard Areas):
    - set back from the first line of stable natural vegetation a distance equal to the setback required in the adjacent ocean hazard area;
    - density of no more than one commercial or residential unit per 15,000 square feet of land area on lots subdivided;
    - residential structures of four units or less or non-residential structures of less than 5,000 square feet total floor area shall be allowed within the inlet hazard area, (except roads and bridges);
    - public rights of access to the public trust lands and waters in Inlet Hazard Areas shall not be eliminated or restricted. Development shall not encroach upon public accessways nor shall it limit the intended use of the accessways;
    - Access roads and the replacement of existing bridges are allowed (Added in 1995).
    - Residential piers are allowed along shorelines exhibiting features of estuarine shorelines (Clarified in 1995).

3. **15A NCAC 07H .0308** (Specific Use Standards for Ocean Hazard Areas):
    - No new dunes shall be created in inlet hazard areas.

4. **15A NCAC 07H .1800** (General Permit to Allow Beach Bulldozing in the Ocean Hazard AEC)
    - This general permit shall not apply to the Inlet Hazard AEC

5. **15A NCAC 7H .0309(b)** Use Standards for Ocean Hazard Areas:
    - Exceptions, in which certain lots platted prior to June 1, 1979 are eligible for an exception to the oceanfront setback rules is not applicable to the IHA.

Science Panel's 2018 Proposed Inlet Hazard Area Boundary Update:

Since the 2016 CRC meeting, DCM staff has been working extensively with the Science Panel to delineate updated IHA boundaries using historical data, updated statistical and mapping methodologies, and expert knowledge of North Carolina's inlet and ocean processes. In June 2018, the Science Panel met in Wilmington to finalize their work on inlets, and DCM will be presenting the Panel's proposed IHA boundaries and discussing next steps at the Commission's September 2018 meeting in Wilmington.

The process of delineating updated IHA boundaries has evolved since the Panel's 2010 proposal, and generally considered three major variables: 1) the spatial and temporal variability of the inlet shoreline relative positions over time; 2) the application of shoreline change statistical methods and landward-most location of all vegetation lines (hybrid-vegetation line), and; 3) expert knowledge of how inlet processes, geomorphology, and engineering (hard-structures, dredging, relocation) influence inlet behavior. The study included 10 of the state's 19 active inlets: 1) Tubbs; 2) Shallotte, 3) Lockwood Folly; 4) Carolina Beach; 5) Masonboro; 6) Mason; 7) Rich; 8) New Topsail; 9) New River, and; 10) Bogue. Other inlets were not included in the update study because they are within undeveloped State or Federal management lands (i.e., NC Coastal Reserve or State Park, US National Seashore).

New Maps

At most inlets, the proposed IHA has expanded farther away from the inlet along the oceanfront-inlet shoreline. This longshore boundary was identified using statistical methods based primarily on standard deviation of relative position of historic shorelines, and to a lesser degree, the actual erosion rates. These techniques quantified the extent of shoreline variation (i.e., back and forth movement), and gave the Science Panel the ability to identify the oceanfront-inlet transitional boundary.

Similarly to how the Ocean Erodible Area (OEA) boundary along the oceanfront is determined (90 times the setback factor), the Panel utilized the multiplier 90 times the shoreline change rate to be the landward-most IHA boundary. However, unlike the oceanfront OEA limit where the distance is measured from the first line of stable and natural vegetation, the Science Panel's landward boundary was measured landward at each transect starting from the landward-most location of all vegetation lines (hybrid-vegetation line). In some instances, the Science Panel utilized their combined professional knowledge of underlying geology and specific inlet related processes to modify the landward boundary.

The Panel acknowledged that risk within inlet hazard areas is not the same relative to a specific point in time, and felt it was important to identify areas within their proposed IHA with greatest potential to be influenced by inlet processes (erosion). Termed and defined by the Science Panel, the "30-Year Risk Line" was initially introduced to the CRC in 2010 as a method for delineating the landward extent of those areas within the proposed IHAs where the Science Panel believed the risk to be greatest. Like the landward boundary of the IHA, the "30-Year Risk Line" distance was calculated for each transect by multiplying the shoreline change rate times 30 measured from the landward-most location of all vegetation lines (hybrid-vegetation line).

It is important to remind the Commission that the terms "30- & 90-Year Risk Lines" are utilized by the Science Panel to describe their process of identifying areas with greatest potential to be influenced by both long- and short-term inlet related processes. These terms do not appear in CRC rule language. It is also important to note that the multipliers of 30 and 90 along with shoreline change are used in the Commission's rules for siting oceanfront development, and are not intended to be predictive in nature, but are an indication of how the shoreline has changed over the preceding years.

It should also be noted that expert knowledge of underlying geology and inlet processes has recently caused the Panel to reconsider a modification to the proposed boundary at Shallotte Inlet on Ocean Isle. Should the map be finalized prior to the September CRC meeting, staff will provide a copy to Commissioners at that time. The Science Panel's proposed IHA boundary maps are attached. The following tables (Tables 1, 2 & 3) summarize boundary area changes, the number of lots less than 15,000 square feet, and structures greater than 5,000 square feet, that would be influenced by current IHA rules and the proposed IHA boundaries.

Table 1. This table illustrates area (acres) based on area of parcels within or intersecting both the existing IHA and proposed IHA. Negative values represent an acreage reduction, while positive values represent an acreage increase. Also note that Masonboro Inlet at Wrightsville Beach does not currently have a designated IHA.

Location	Existing IHA (acres)	2018-Proposed IHA (acres)	Difference (acres)	Increase-Reduction (%)
Tubbs Inlet - Sunset Beach	182	96.8	-85.2	-46.8%
Tubbs Inlet - Ocean Isle	123.5	84.3	-39.2	-31.7%
Shallotte Inlet - Ocean Isle	64.6	216.6	152	235.3%
Shallotte Inlet - Holden Beach	290.5	569.3	278.8	96.0%
Lockwood Folly Inlet - Holden Beach	64.1	189.5	125.4	195.6%
Lockwood Folly Inlet - Oak Island	126.7	229.7	103	81.3%
Carolina Beach Inlet - Carolina Beach	177.5	346	168.5	94.9%
Masonboro Inlet - Wrightsville Beach	0	90.8	90.8	100.0%
Mason Inlet - Wrightsville Beach	267.6	125.5	-142.1	-53.1%
Mason Inlet - Figure Eight	267.6	165.6	-102	-38.1%
Rich Inlet - Figure Eight	156.2	253.6	97.4	62.4%
Rich Inlet - Lea-Hutaff Island	117.7	409	291.3	247.5%
New Topsail Inlet - Lea-Hutaff Island	517.1	414.4	-102.7	-19.9%
New Topsail Inlet - Topsail Beach	256.9	427.4	170.5	66.4%
New River Inlet - N. Topsail Beach	85.2	144.8	59.6	70.0%
Bogue Inlet - Emerald Isle	136.1	429.5	293.4	215.6%
TOTAL:	**2833**	**4192.8**	**1359.5**	**48.0%**

Table 2. This table illustrates the number of structures (residential and commercial combined) within or intersecting either the existing IHA and proposed IHA and have a heated-area greater than 5,000 square feet. Negative values represent a reduction, while positive values represent an increase.

Structures > 5,000 sqft.	IHA (current)	IHA (2018 proposed)	Difference
Tubbs Inlet - Sunset Beach	0	0	0
Tubbs Inlet - Ocean Isle	5	4	-1
Shallotte Inlet - Ocean Isle	0	1	1
Shallotte Inlet - Holden Beach	5	9	4
Lockwood Folly Inlet - Holden Beach	0	0	0
Lockwood Folly Inlet - Oak Island	0	0	0
Carolina Beach Inlet - Carolina Beach	0	0	0
Masonboro Inlet - Wrightsville Beach	0	1	1
Mason Inlet - Wrightsville Beach	1	1	0
Mason Inlet - Figure Eight	9	5	-4
Rich Inlet - Figure Eight	2	9	7
Rich Inlet - Lea-Hutaff Island	0	0	0
New Topsail Inlet - Lea-Hutaff Island	0	0	0
New Topsail Inlet - Topsail Beach	0	0	0
New River Inlet - N. Topsail Beach	0	11	11
Bogue Inlet - Emerald Isle	2	0	-2
TOTAL:	**24**	**41**	**17**

Table 3. This table illustrates the number of lots (residential commercial combined) within, or intersecting either the existing IHA and proposed IHA, that have a lot less than 15,000 square feet (0.334 acres). Negative values represent a reduction, while positive values represent an increase.

Lots < 15,000 sqft. (0.334 acres)	IHA (current) # of Parcels	IHA (2018 proposed) # of Parcels	Difference
Tubbs Inlet - Sunset Beach	156	16	-140
Tubbs Inlet - Ocean Isle	20	3	-17
Shallotte Inlet - Ocean Isle	146	403	257
Shallotte Inlet - Holden Beach	15	173	158
Lockwood Folly Inlet - Holden Beach	52	156	104
Lockwood Folly Inlet - Oak Island	49	116	67
Carolina Beach Inlet - Carolina Beach	0	17	17
Masonboro Inlet - Wrightsville Beach	NA	9	9
Mason Inlet - Wrightsville Beach	0	0	0
Mason Inlet - Figure Eight	4	7	3
Rich Inlet - Figure Eight	8	16	8
Rich Inlet - Lea-Hutaff Island	3	0	-3
New Topsail Inlet - Lea-Hutaff Island	3	1	-2
New Topsail Inlet - Topsail Beach	230	238	8
New River Inlet - N. Topsail Beach	137	542	405
Bogue Inlet - Emerald Isle	71	108	37
TOTAL:	**894**	**1805**	**911**

Summary of Proposed Inlet Hazard Area Rule Amendments:

Some may recall that during the 2010 IHA update proposal, progress was eventually halted in part due to many unanswered questions related to what changes were envisioned for development standards within the proposed IHAs, especially given the increased size of the proposed areas. For this reason, staff is proposing the following concepts to be considered by the Commission while discussing amendments to existing rule language:

- All existing structures within the new IHAs be grandfathered; clarify that the existing grandfathering provisions contained within 15A NCAC 07H .0306(a)(5)(L) apply within IHAs.

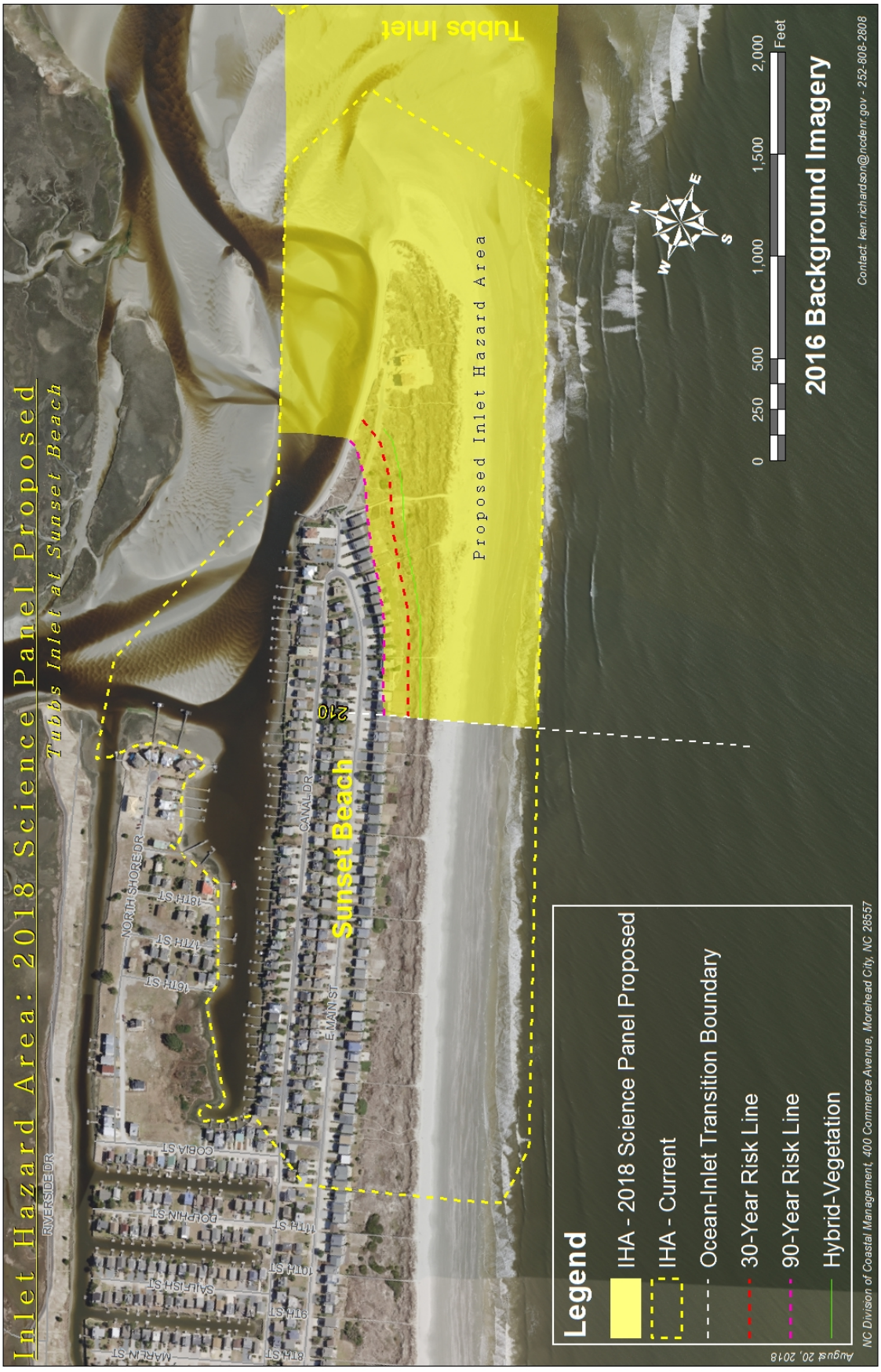
- All lots under 15,000 square feet, platted before the effective date of these amendments, be grandfathered.
- Remove the distinction between “residential” and “commercial” structures.
- Limit all new construction to 5,000 square feet.
- Remove restrictions on the number of units allowed in a structure.
- Use the calculated erosion rates inside of the IHAs, instead of the rates from the adjacent OEAs.

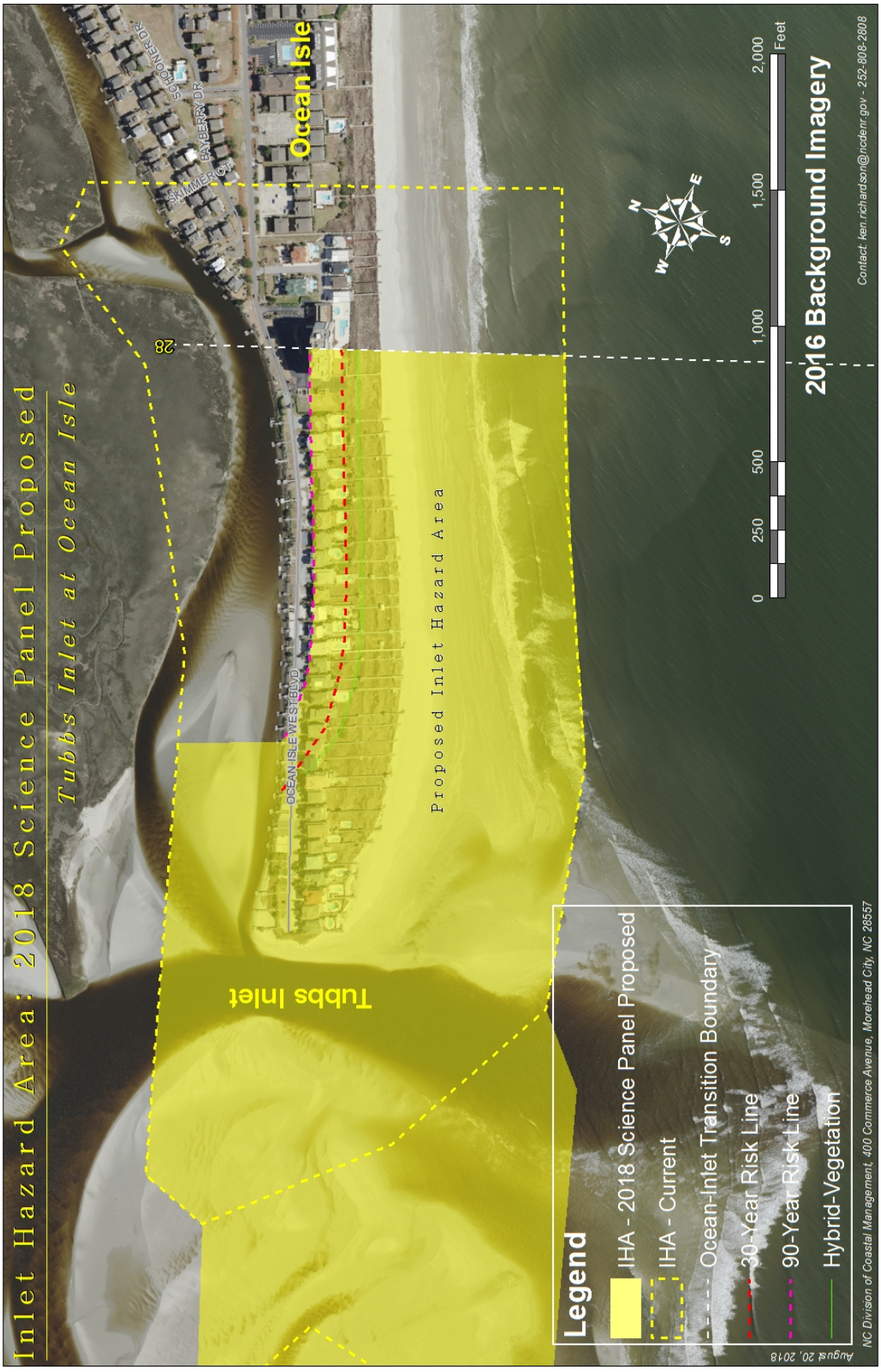
This information is being provided to the Commission as a status update on the Panel’s progress, and to familiarize the CRC with current IHA rules and the Panel’s proposed boundaries. The Science Panel’s report is currently undergoing final edits by the Panel and is expected to be completed and returned to staff during the week of September 24th. The final IHA update report will be provided to the Commission at the November 2018 meeting in Atlantic Beach.

Staff is asking for the Commission’s direction in development of amended rule language to accompany the newly delineated IHAs for presentation at the November meeting.

APPENDIX A: Draft 2018 Proposed IHA maps
APPENDIX B: Existing rules pertaining to IHAs

APPENIX A: Draft 2018 Proposed IHA maps


Inlet Hazard Area: 2018 Science Panel Proposed
Tubbs Inlet at Sunset Beach
Tubbs Inlet
Proposed Inlet Hazard Area
Sunset Beach
210
RIVERSIDE DR
NORTH SHORE DR
CANAL DR
E MAIN ST
18TH ST
17TH ST
16TH ST
COBIA ST
DOLPHIN ST
11TH ST
10TH ST
SAILFISH ST
9TH ST
8TH ST
MARLIN ST
Legend
IHA - 2018 Science Panel Proposed
IHA - Current
Ocean-Inlet Transition Boundary
30-Year Risk Line
90-Year Risk Line
Hybrid-Vegetation
0 250 500 1,000 1,500 2,000 Feet
2016 Background Imagery
August 20, 2018
NC Division of Coastal Management, 400 Commerce Avenue, Morehead City, NC 28557
Contact: ken.richardson@ncdenr.gov - 252-808-2808


Inlet Hazard Area: 2018 Science Panel Proposed
Tubbs Inlet at Ocean Isle
Ocean Isle
Tubbs Inlet
Proposed Inlet Hazard Area
OCEAN ISLE WEST BLVD
SKIMMER PT
BAYBERRY DR
LOONEY RD
28
Legend
IHA - 2018 Science Panel Proposed
IHA - Current
Ocean-Inlet Transition Boundary
30-Year Risk Line
90-Year Risk Line
Hybrid-Vegetation
0
250
500
1,000
1,500
2,000
Feet
2016 Background Imagery
August 20, 2018
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Shallotte Inlet at Ocean Isle

NOTE: Science Panel is considering one additional modification to their proposed boundary at Ocean Isle (Shallotte Inlet). Map is expected to be finalized in time for the September CRC meeting.

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Inlet Hazard Area: 2018 Science Panel Proposed
Lockwood Folly Inlet at Oak Island
Oak Island
Lockwood Folly Inlet
Proposed Inlet Hazard Area
W BEACH DR
KINGS LYNN DR
85TH PL SE
70
Legend
IHA - 2018 Science Panel Proposed
IHA - Current
Ocean-Inlet Transition Boundary
30-Year Risk Line
90-Year Risk Line
Hybrid-Vegetation
N
E
S
W
0 250 500 1,000 1,500 2,000 Feet
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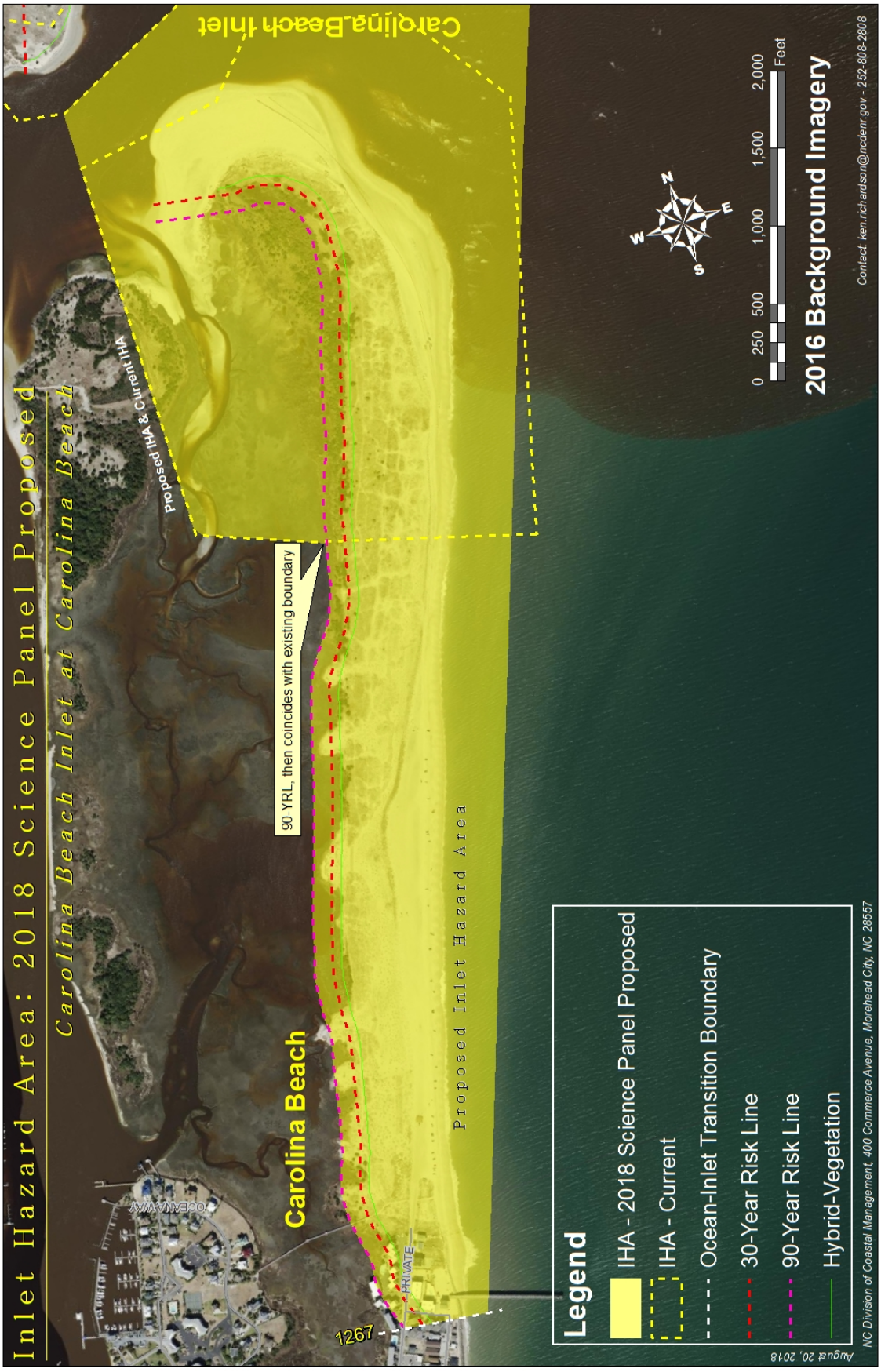

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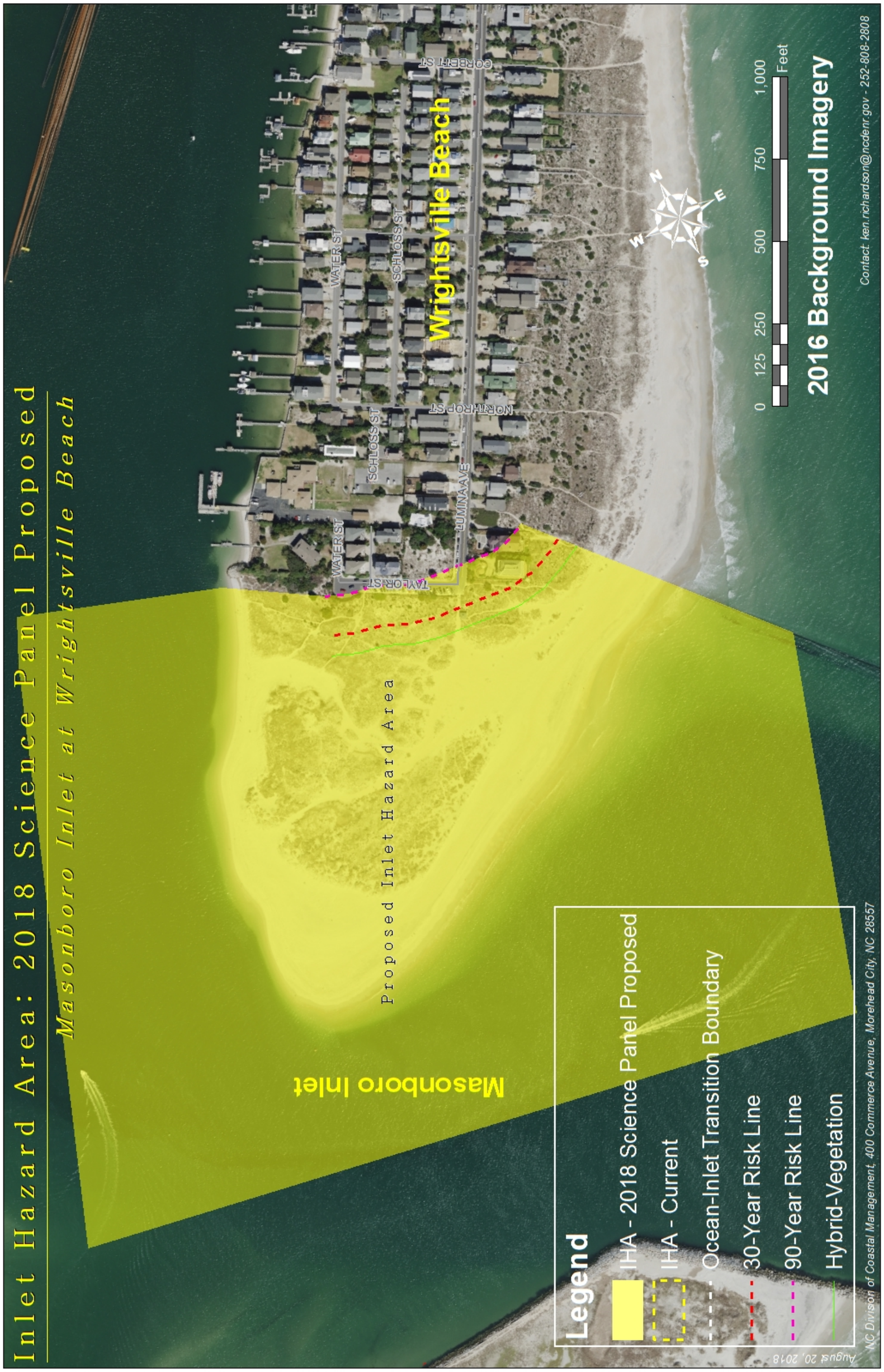
Inlet Hazard Area: 2018 Science Panel Proposed
Masonboro Inlet at Wrightsville Beach
Wrightsville Beach
CORBETT ST
WATER ST
SCHLOSS ST
NORTHROP ST
LUMINA AVE
TAYLOR ST
Proposed Inlet Hazard Area
Masonboro Inlet
N
E
S
W
0 125 250 500 750 1,000
Feet
2016 Background Imagery
Contact: ken.richardson@ncdenr.gov - 252-808-2808
Legend
IHA - 2018 Science Panel Proposed
IHA - Current
Ocean-Inlet Transition Boundary
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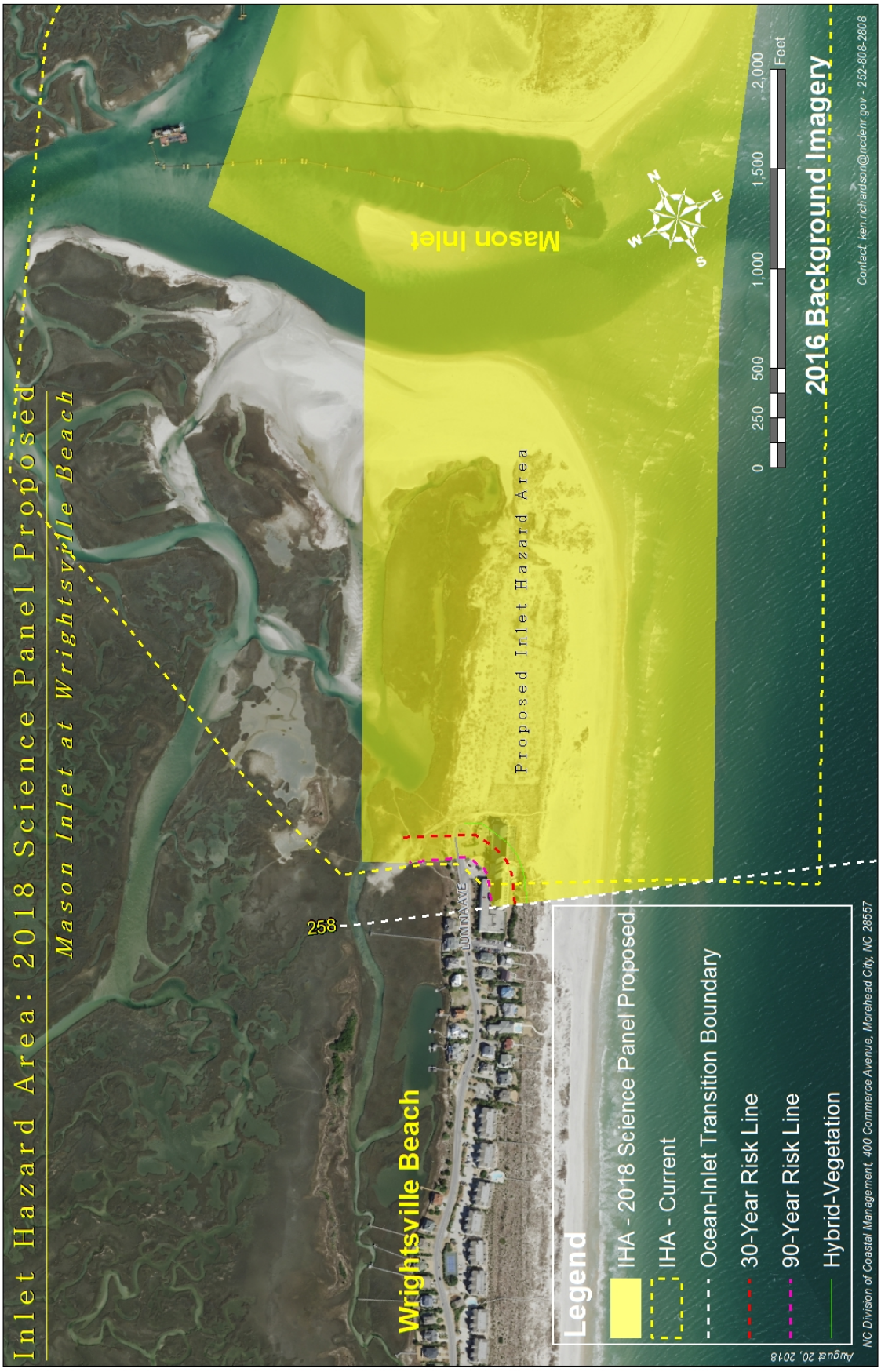

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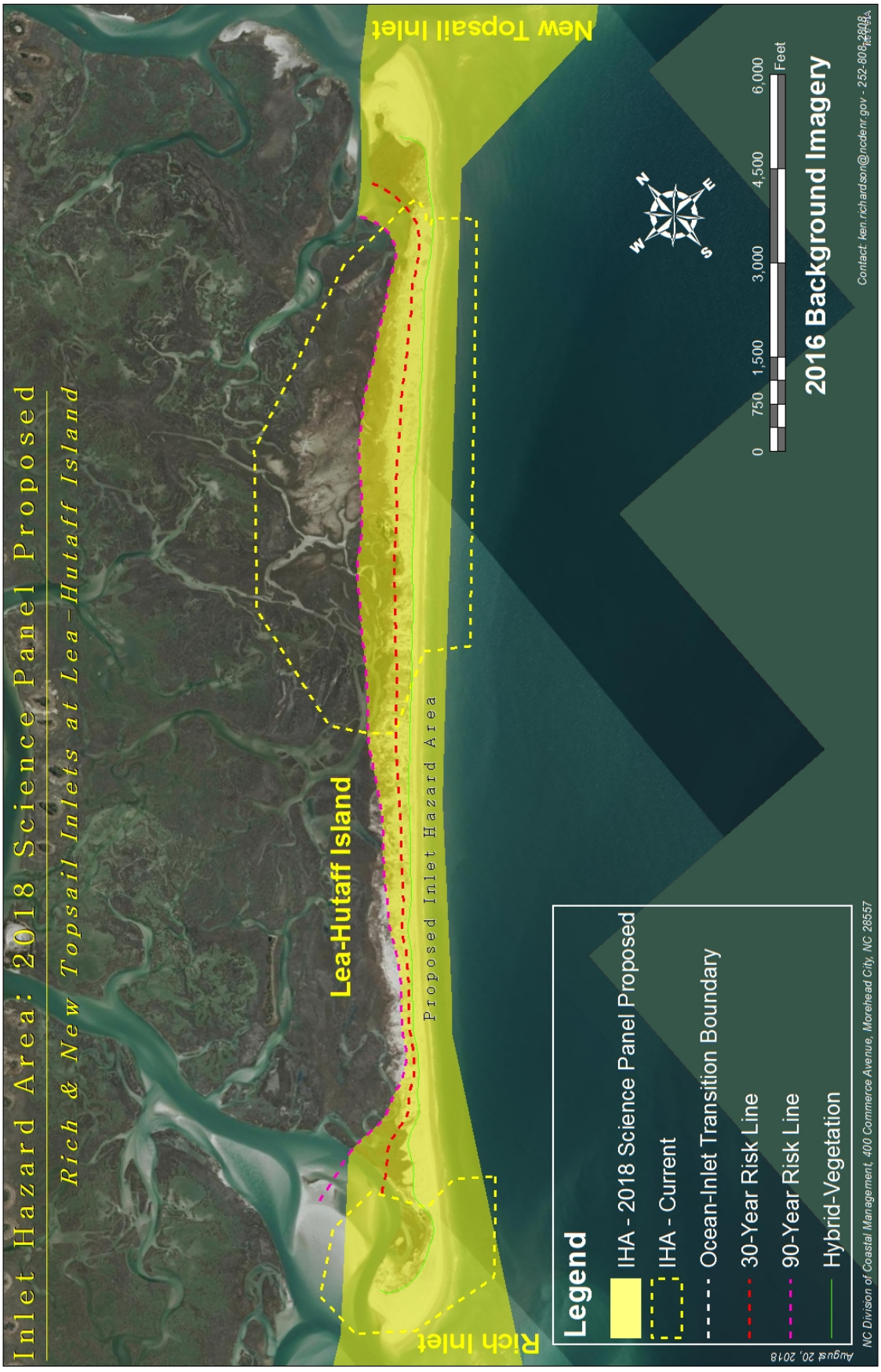
Inlet Hazard Area: 2018 Science Panel Proposed
Rich Inlet at Figure Eight Island
Rich Inlet
Proposed Inlet Hazard Area
Figure Eight
181
OYSTERCATCHER RD
BEACH RD
SURF CT
COMBER RD
Legend
IHA - 2018 Science Panel Proposed
IHA - Current
Ocean-Inlet Transition Boundary
30-Year Risk Line
90-Year Risk Line
Hybrid-Vegetation
August 20, 2018
NC Division of Coastal Management, 400 Commerce Avenue, Morehead City, NC 28557
2016 Background Imagery
0 250 500 1,000 1,500 2,000 Feet
N E S W
Contact: ken.richardson@ncdenr.gov - 252-808-2808


Inlet Hazard Area: 2018 Science Panel Proposed
Rich & New Topsail Inlets at Lea-Hutaff Island
New Topsail Inlet
Lea-Hutaff Island
Proposed Inlet Hazard Area
Rich Inlet
Legend
IHA - 2018 Science Panel Proposed
IHA - Current
Ocean-Inlet Transition Boundary
30-Year Risk Line
90-Year Risk Line
Hybrid-Vegetation
2016 Background Imagery
0 750 1,500 3,000 4,500 6,000
Feet
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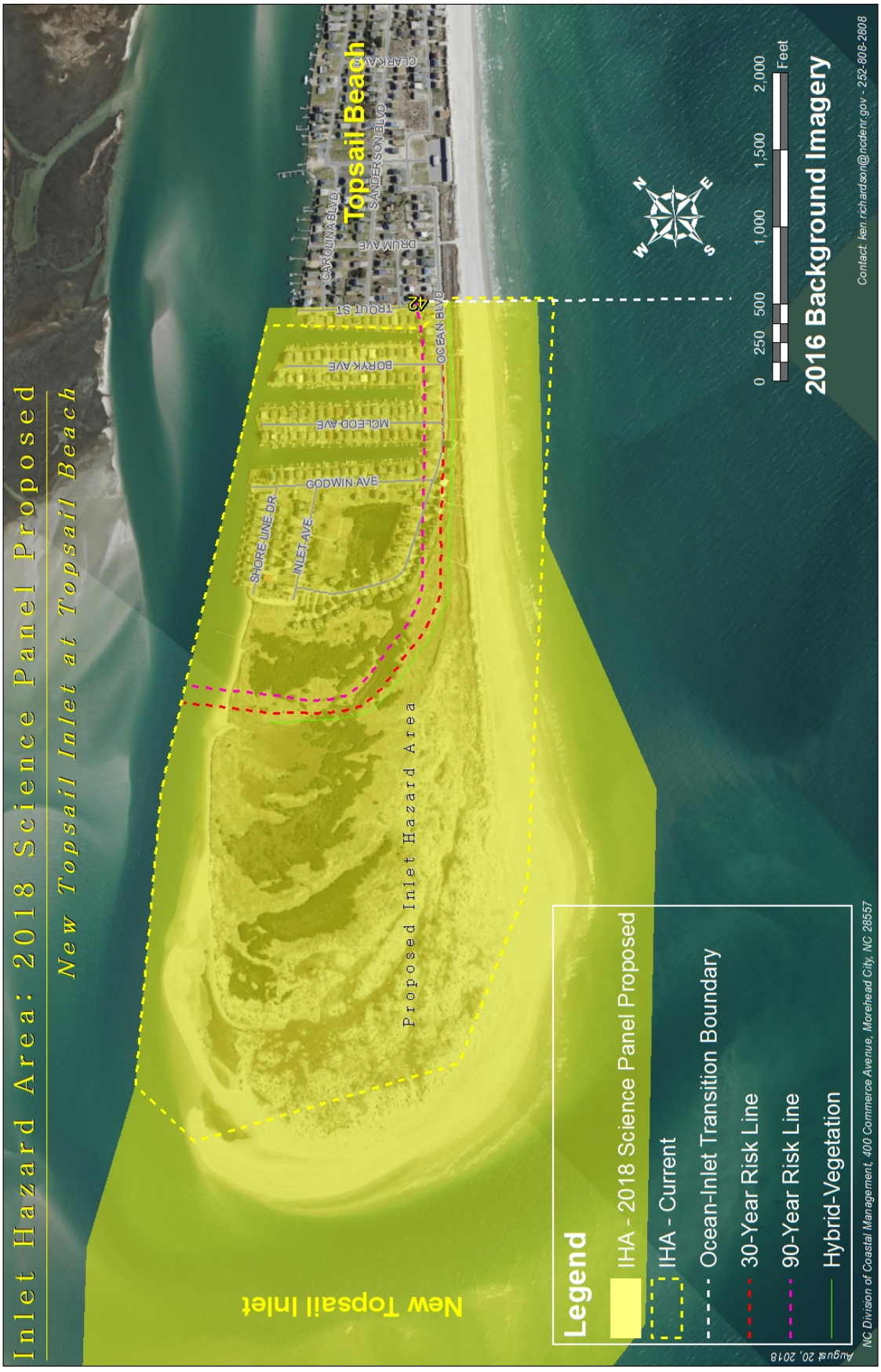
Inlet Hazard Area: 2018 Science Panel Proposed
New Topsail Inlet at Topsail Beach
Topsail Beach
New Topsail Inlet
Proposed Inlet Hazard Area
CAROLINA BLVD
SANDERSON BLVD
CLARK AVE
DRUM AVE
TROUT ST
OCEAN BLVD
BORK AVE
MCLEOD AVE
GODWIN AVE
INLET AVE
SHORE LINE DR
42
N
E
S
W
0 250 500 1,000 1,500 2,000 Feet
2016 Background Imagery
Contact: ken.richardson@ncdenr.gov - 252-808-2808
Legend
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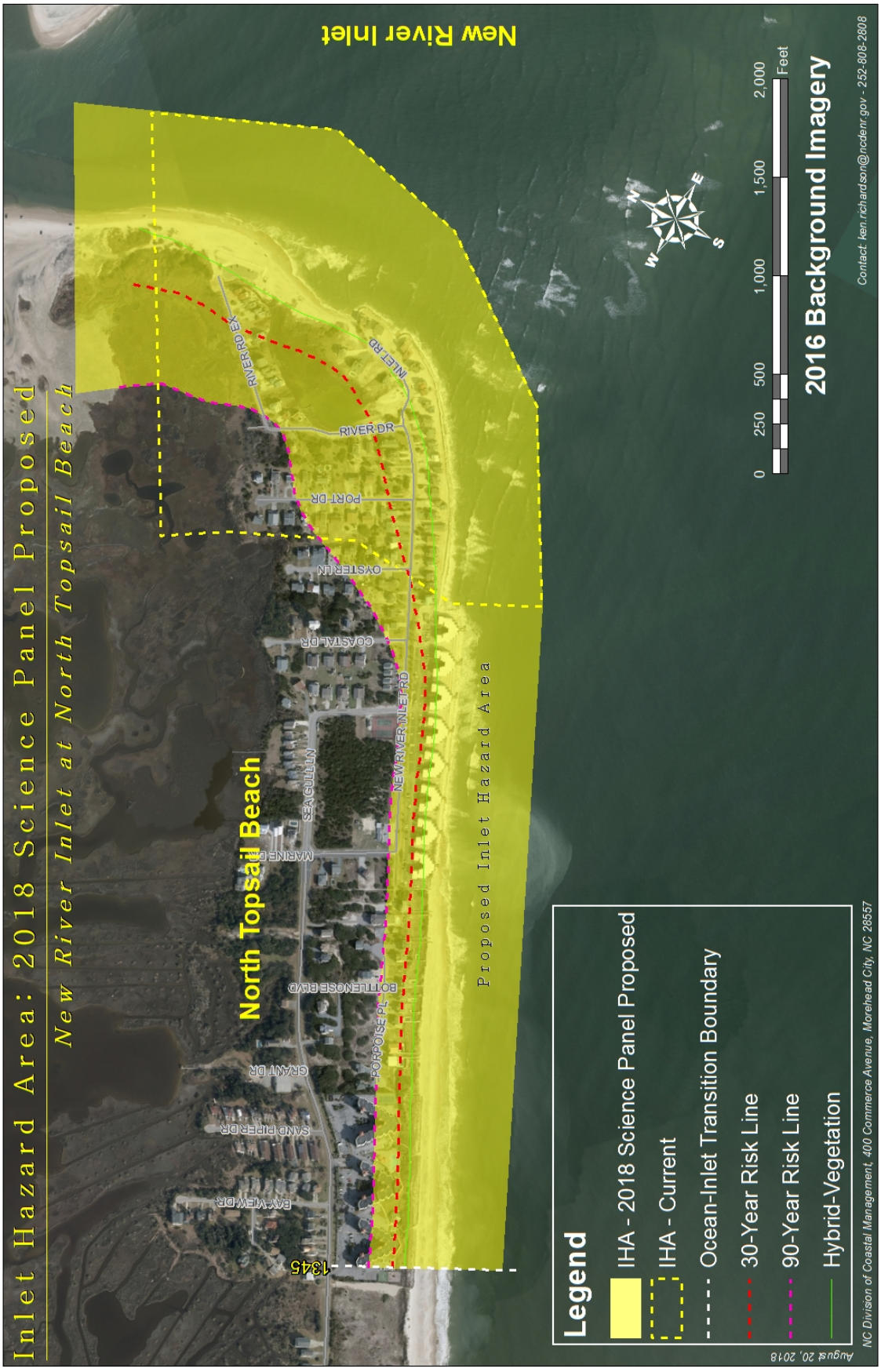

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Appendix B: Existing Rule Language Pertaining To IHAs:

15A NCAC 07H .0310 USE STANDARDS FOR INLET HAZARD AREAS

(a) Inlet areas as defined by Rule .0304 of this Section are subject to inlet migration, rapid and severe changes in watercourses, flooding and strong tides. Due to this extremely hazardous nature of the Inlet Hazard Areas, all development within these areas shall be permitted in accordance with the following standards:

(1) All development in the inlet hazard area shall be set back from the first line of stable natural vegetation a distance equal to the setback required in the adjacent ocean hazard area;

(2) Permanent structures shall be permitted at a density of no more than one commercial or residential unit per 15,000 square feet of land area on lots subdivided or created after July 23, 1981;

(3) Only residential structures of four units or less or non-residential structures of less than 5,000 square feet total floor area shall be allowed within the inlet hazard area, except that access roads to those areas and maintenance and replacement of existing bridges shall be allowed;

(4) Established common-law and statutory public rights of access to the public trust lands and waters in Inlet Hazard Areas shall not be eliminated or restricted. Development shall not encroach upon public accessways nor shall it limit the intended use of the accessways;

(5) All other rules in this Subchapter pertaining to development in the ocean hazard areas shall be applied to development within the Inlet Hazard Areas.

(b) The inlet hazard area setback requirements shall not apply to the types of development exempted from the ocean setback rules in 15A NCAC 7H .0309(a), nor, to the types of development listed in 15A NCAC 7H .0309(c).

(c) In addition to the types of development excepted under Rule .0309 of this Section, small scale, non-essential development that does not induce further growth in the Inlet Hazard Area, such as the construction of single-family piers and small scale erosion control measures that do not interfere with natural inlet movement, may be permitted on those portions of shoreline within a designated Inlet Hazard Area that exhibit features characteristic of Estuarine Shoreline. Such features include the presence of wetland vegetation, lower wave energy, and lower erosion rates than in the adjoining Ocean Erodible Area. Such development shall be permitted under the standards set out in Rule .0208 of this Subchapter. For the purpose of this Rule, small scale is defined as those projects which are eligible for authorization under 15A NCAC 7H .1100, .1200 and 7K .0203.

History Note: *Filed as a Temporary Amendment Eff. October 30, 1981, for a period of 70 days to expire on January 8, 1982;*
Filed as an Emergency Rule Eff. September 11, 1981, for a period of 120 days to expire on January 8, 1982;
Authority G.S. 113A-107; 113A-113(b); 113A-124;
Eff. December 1, 1981;
Amended Eff. April 1, 1999; April 1, 1996; December 1, 1992; December 1, 1991; March 1, 1988.

15A NCAC 07H .0309 USE STANDARDS FOR OCEAN HAZARD AREAS: EXCEPTIONS

(a) The following types of development shall be permitted seaward of the oceanfront setback requirements of Rule .0306(a) of the Subchapter if all other provisions of this Subchapter and other state and local regulations are met:

(1) campsites;
(2) driveways and parking areas with clay, packed sand or gravel;
(3) elevated decks not exceeding a footprint of 500 square feet;
(4) beach accessways consistent with Rule .0308(c) of this Subchapter;
(5) unenclosed, uninhabitable gazebos with a footprint of 200 square feet or less;
(6) uninhabitable, single-story storage sheds with a foundation or floor consisting of wood, clay, packed sand or gravel, and a footprint of 200 square feet or less;
(7) temporary amusement stands;
(8) sand fences; and
(9) swimming pools.

In all cases, this development shall be permitted only if it is landward of the vegetation line or static vegetation line, whichever is applicable; involves no alteration or removal of primary or frontal dunes which would

compromise the integrity of the dune as a protective landform or the dune vegetation; has overwalks to protect any existing dunes; is not essential to the continued existence or use of an associated principal development; is not required to satisfy minimum requirements of local zoning, subdivision or health regulations; and meets all other non-setback requirements of this Subchapter.

(b) Where application of the oceanfront setback requirements of Rule .0306(a) of this Subchapter would preclude placement of permanent substantial structures on lots existing as of June 1, 1979, buildings shall be permitted seaward of the applicable setback line in ocean erodible areas, but not inlet hazard areas or unvegetated beach areas, if each of the following conditions are met:

(1) The development is set back from the ocean the maximum feasible distance possible on the existing lot and the development is designed to minimize encroachment into the setback area;

(2) The development is at least 60 feet landward of the vegetation line or static vegetation line, whichever is applicable;

(3) The development is not located on or in front of a frontal dune, but is entirely behind the landward toe of the frontal dune;

(4) The development incorporates each of the following design standards, which are in addition to those required by Rule .0308(d) of this Subchapter.

(A) All pilings shall have a tip penetration that extends to at least four feet below mean sea level;

(B) The footprint of the structure shall be no more than 1,000 square feet, and the total floor area of the structure shall be no more than 2,000 square feet. For the purpose of this Section, roof-covered decks and porches that are structurally attached shall be included in the calculation of footprint;

(C) Driveways and parking areas shall be constructed of clay, packed sand or gravel except in those cases where the development does not abut the ocean and is located landward of a paved public street or highway currently in use. In those cases concrete, asphalt or turfstone may also be used;

(D) No portion of a building's total floor area, including elevated portions that are cantilevered, knee braced or otherwise extended beyond the support of pilings or footings, may extend oceanward of the total floor area of the landward-most adjacent building. When the geometry or orientation of a lot precludes the placement of a building in line with the landward most adjacent structure of similar use, an average line of construction shall be determined by the Division of Coastal Management on a case-by-case basis in order to determine an ocean hazard setback that is landward of the vegetation line, static vegetation line or measurement line, whichever is applicable, a distance no less than 60 feet.

(5) All other provisions of this Subchapter and other state and local regulations are met. If the development is to be serviced by an on-site waste disposal system, a copy of a valid permit for such a system shall be submitted as part of the CAMA permit application.

(c) Reconfiguration and development of lots and projects that have a grandfather status under Paragraph (b) of this Rule shall be allowed provided that the following conditions are met:

(1) Development is setback from the first line of stable natural vegetation a distance no less than that required by the applicable exception;

(2) Reconfiguration shall not result in an increase in the number of buildable lots within the Ocean Hazard AEC or have other adverse environmental consequences.

For the purposes of this Rule, an existing lot is a lot or tract of land which, as of June 1, 1979, is specifically described in a recorded plat and which cannot be enlarged by combining the lot or tract of land with a contiguous lot(s) or tract(s) of land under the same ownership. The footprint is defined as the greatest exterior dimensions of the structure, including covered decks, porches, and stairways, when extended to ground level.

(d) The following types of water dependent development shall be permitted seaward of the oceanfront setback requirements of Rule .0306(a) of this Section if all other provisions of this Subchapter and other state and local regulations are met:

(1) piers providing public access; and

(2) maintenance and replacement of existing state-owned bridges and causeways and accessways to such bridges.

(e) Replacement or construction of a pier house associated with an ocean pier shall be permitted if each of the following conditions is met:

(1) The ocean pier provides public access for fishing and other recreational purposes whether on a commercial, public, or nonprofit basis;

(2) Commercial, non-water dependent uses of the ocean pier and associated pier house shall be limited to restaurants and retail services. Residential uses, lodging, and parking areas shall be prohibited;
(3) The pier house shall be limited to a maximum of two stories;
(4) A new pier house shall not exceed a footprint of 5,000 square feet and shall be located landward of mean high water;
(5) A replacement pier house may be rebuilt not to exceed its most recent footprint or a footprint of 5,000 square feet, whichever is larger;
(6) The pier house shall be rebuilt to comply with all other provisions of this Subchapter; and
(7) If the pier has been destroyed or rendered unusable, replacement or expansion of the associated pier house shall be permitted only if the pier is being replaced and returned to its original function.

(f) In addition to the development authorized under Paragraph (d) of this Rule, small scale, non-essential development that does not induce further growth in the Ocean Hazard Area, such as the construction of single family piers and small scale erosion control measures that do not interfere with natural oceanfront processes, shall be permitted on those non-oceanfront portions of shoreline that exhibit features characteristic of an Estuarine Shoreline. Such features include the presence of wetland vegetation, and lower wave energy and erosion rates than in the adjoining Ocean Erodible Area. Such development shall be permitted under the standards set out in Rule .0208 of this Subchapter. For the purpose of this Rule, small scale is defined as those projects which are eligible for authorization under 15A NCAC 07H .1100, .1200 and 07K .0203.

(g) Transmission lines necessary to transmit electricity from an offshore energy-producing facility may be permitted provided that each of the following conditions is met:
(1) The transmission lines are buried under the ocean beach, nearshore area, and primary and frontal dunes, all as defined in Rule 07H .0305, in such a manner so as to ensure that the placement of the transmission lines involves no alteration or removal of the primary or frontal dunes; and
(2) The design and placement of the transmission lines shall be performed in a manner so as not to endanger the public or the public's use of the beach.

History Note: *Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b)(6)a; 113A-113(b)(6)b; 113A-113(b)(6)d; 113A-124;*
Eff. February 2, 1981;
Amended Eff. June 1, 2010; February 1, 2006; September 17, 2002 pursuant to S.L. 2002-116; August 1, 2000; August 1, 1998; April 1, 1996; April 1, 1995; February 1, 1993; January 1, 1991; April 1, 1987.

15A NCAC 07H .0308 SPECIFIC USE STANDARDS FOR OCEAN HAZARD AREAS

(a) Ocean Shoreline Erosion Control Activities:
(1) Use Standards Applicable to all Erosion Control Activities:
(A) All oceanfront erosion response activities shall be consistent with the general policy statements in 15A NCAC 07M .0200.
(B) Permanent erosion control structures may cause significant adverse impacts on the value and enjoyment of adjacent properties or public access to and use of the ocean beach, and, therefore, are prohibited. Such structures include bulkheads, seawalls, revetments, jetties, groins and breakwaters.
(C) Rules concerning the use of oceanfront erosion response measures apply to all oceanfront properties without regard to the size of the structure on the property or the date of its construction.
(D) All permitted oceanfront erosion response projects, other than beach bulldozing and temporary placement of sandbag structures, shall demonstrate sound engineering for their planned purpose.
(E) Shoreline erosion response projects shall not be constructed in beach or estuarine areas that sustain substantial habitat for fish and wildlife species, as identified by natural resource agencies during project review, unless mitigation measures are incorporated into project design, as set forth in Rule .0306(i) of this Section.
(F) Project construction shall be timed to minimize adverse effects on biological activity.
(G) Prior to completing any erosion response project, all exposed remnants of or debris from failed erosion control structures must be removed by the permittee.

(H) Erosion control structures that would otherwise be prohibited by these standards may be permitted on finding by the Division that:

(i) the erosion control structure is necessary to protect a bridge which provides the only existing road access on a barrier island, that is vital to public safety, and is imminently threatened by erosion as defined in provision (a)(2)(B) of this Rule;

(ii) the erosion response measures of relocation, beach nourishment or temporary stabilization are not adequate to protect public health and safety; and

(iii) the proposed erosion control structure will have no adverse impacts on adjacent properties in private ownership or on public use of the beach.

(I) Structures that would otherwise be prohibited by these standards may also be permitted on finding by the Division that:

(i) the structure is necessary to protect a state or federally registered historic site that is imminently threatened by shoreline erosion as defined in provision (a)(2)(B) of this Rule;

(ii) the erosion response measures of relocation, beach nourishment or temporary stabilization are not adequate and practicable to protect the site;

(iii) the structure is limited in extent and scope to that necessary to protect the site; and

(iv) any permit for a structure under this Part (I) may be issued only to a sponsoring public agency for projects where the public benefits outweigh the short or long range adverse impacts. Additionally, the permit shall include conditions providing for mitigation or minimization by that agency of any unavoidable adverse impacts on adjoining properties and on public access to and use of the beach.

(J) Structures that would otherwise be prohibited by these standards may also be permitted on finding by the Division that:

(i) the structure is necessary to maintain an existing commercial navigation channel of regional significance within federally authorized limits;

(ii) dredging alone is not practicable to maintain safe access to the affected channel;

(iii) the structure is limited in extent and scope to that necessary to maintain the channel;

(iv) the structure shall not adversely impact fisheries or other public trust resources; and

(v) any permit for a structure under this Part (J) may be issued only to a sponsoring public agency for projects where the public benefits outweigh the short or long range adverse impacts. Additionally, the permit shall include conditions providing for mitigation or minimization by that agency of any unavoidable adverse impacts on adjoining properties and on public access to and use of the beach.

(K) The Commission may renew a permit for an erosion control structure issued pursuant to a variance granted by the Commission prior to 1 July 1995. The Commission may authorize the replacement of a permanent erosion control structure that was permitted by the Commission pursuant to a variance granted by the Commission prior to 1 July 1995 if the Commission finds that:

(i) the structure will not be enlarged beyond the dimensions set out in the permit;

(ii) there is no practical alternative to replacing the structure that will provide the same or similar benefits; and

(iii) the replacement structure will comply with all applicable laws and with all rules, other than the rule or rules with respect to which the Commission granted the variance, that are in effect at the time the structure is replaced.

(L) Proposed erosion response measures using innovative technology or design shall be considered as experimental and shall be evaluated on a case-by-case basis to determine consistency with 15A NCAC 07M .0200 and general and specific use standards within this Section.

(2) Temporary Erosion Control Structures:

(A) Permittable temporary erosion control structures shall be limited to sandbags placed landward of mean high water and parallel to the shore.

(B) Temporary erosion control structures as defined in Part (2)(A) of this Subparagraph shall be used to protect only imminently threatened roads and associated right of ways, and buildings and their associated septic systems. A structure is considered imminently threatened if its foundation, septic system, or right-of-way in the case of roads, is less than 20 feet away from the erosion scarp. Buildings and roads located more than 20 feet from the erosion scarp or in areas where there is no obvious erosion scarp may also be found to be imminently threatened when site conditions, such as a flat beach profile or accelerated erosion, increase the risk of imminent damage to the structure.

(C) Temporary erosion control structures shall be used to protect only the principal structure and its associated septic system, but not appurtenances such as pools, gazebos, decks or any amenity that is allowed as an exception to the erosion setback requirement.

(D) Temporary erosion control structures may be placed seaward of a septic system when there is no alternative to relocate it on the same or adjoining lot so that it is landward of or in line with the structure being protected.

(E) Temporary erosion control structures shall not extend more than 20 feet past the sides of the structure to be protected. The landward side of such temporary erosion control structures shall not be located more than 20 feet seaward of the structure to be protected or the right-of-way in the case of roads. If a building or road is found to be imminently threatened and at an increased risk of imminent damage due to site conditions such as a flat beach profile or accelerated erosion, temporary erosion control structures may be located more than 20 feet seaward of the structure being protected. In cases of increased risk of imminent damage, the location of the temporary erosion control structures shall be determined by the Director of the Division of Coastal Management or their designee in accordance with Part (2)(A) of this Subparagraph.

(F) Temporary erosion control structures may remain in place for up to two years after the date of approval if they are protecting a building with a total floor area of 5000 sq. ft. or less and its associated septic system, or, for up to five years for a building with a total floor area of more than 5000 sq. ft. and its associated septic system. Temporary erosion control structures may remain in place for up to five years if they are protecting a bridge or a road. The property owner shall be responsible for removal of the temporary structure within 30 days of the end of the allowable time period.

(G) Temporary sandbag erosion control structures may remain in place for up to eight years from the date of approval if they are located in a community that is actively pursuing a beach nourishment project, or if they are located in an Inlet Hazard Area adjacent to an inlet for which a community is actively pursuing an inlet relocation or stabilization project in accordance with G.S. 113A-115.1. For purposes of this Rule, a community is considered to be actively pursuing a beach nourishment, inlet relocation or stabilization project if it has:

(i) an active CAMA permit, where necessary, approving such project; or

(ii) been identified by a U.S. Army Corps of Engineers' Beach Nourishment Reconnaissance Study, General Reevaluation Report, Coastal Storm Damage Reduction Study or an ongoing feasibility study by the U.S. Army Corps of Engineers and a commitment of local or federal money, when necessary; or

(iii) received a favorable economic evaluation report on a federal project; or

(iv) is in the planning stages of a project designed by the U.S. Army Corps of Engineers or persons meeting applicable State occupational licensing requirements and initiated by a local government or community with a commitment of local or state funds to construct the project and the identification of the financial resources or funding bases necessary to fund the beach nourishment, inlet relocation or stabilization project.

If beach nourishment, inlet relocation or stabilization is rejected by the sponsoring agency or community, or ceases to be actively planned for a section of shoreline, the time extension is void for that section of beach or community and existing sandbags are subject to all applicable time limits set forth in Part (F) of this Subparagraph.

(H) Once the temporary erosion control structure is determined by the Division of Coastal Management to be unnecessary due to relocation or removal of the threatened structure, a storm protection project constructed by the U.S. Army Corps of Engineers, a large-scale

beach nourishment project, an inlet relocation or stabilization project, it shall be removed by the property owner within 30 days of official notification from the Division of Coastal Management regardless of the time limit placed on the temporary erosion control structure.

(I) Removal of temporary erosion control structures is not required if they are covered by dunes with stable and natural vegetation.

(J) The property owner shall be responsible for the removal of remnants of all portions of any damaged temporary erosion control structure.

(K) Sandbags used to construct temporary erosion control structures shall be tan in color and three to five feet wide and seven to 15 feet long when measured flat. Base width of the structure shall not exceed 20 feet, and the height shall not exceed six feet.

(L) Soldier pilings and other types of devices to anchor sandbags shall not be allowed.

(M) An imminently threatened structure may be protected only once, regardless of ownership, unless the threatened structure is located in a community that is actively pursuing a beach nourishment project, or in an Inlet Hazard Area and in a community that is actively pursuing an inlet relocation or stabilization project in accordance with (G) of this Subparagraph. Existing temporary erosion control structures located in Inlet Hazard Areas may be eligible for an additional eight year permit extension provided that the structure being protected is still imminently threatened, the temporary erosion control structure is in compliance with requirements of this Subchapter and the community in which it is located is actively pursuing a beach nourishment, inlet relocation or stabilization project in accordance with Part (G) of this Subparagraph. In the case of a building, a temporary erosion control structure may be extended, or new segments constructed, if additional areas of the building become imminently threatened. Where temporary structures are installed or extended incrementally, the time period for removal under Part (F) or (G) of this Subparagraph shall begin at the time the initial erosion control structure is installed. For the purpose of this Rule:

(i) a building and septic system shall be considered as separate structures.

(ii) a road or highway shall be allowed to be incrementally protected as sections become imminently threatened. The time period for removal of each section of sandbags shall begin at the time that section is installed in accordance with Part (F) or (G) of this Subparagraph.

(N) Existing sandbag structures may be repaired or replaced within their originally permitted dimensions during the time period allowed under Part (F) or (G) of this Subparagraph.

(3) Beach Nourishment. Sand used for beach nourishment shall be compatible with existing grain size and in accordance with 15A NCAC 07H .0312.

(4) Beach Bulldozing. Beach bulldozing (defined as the process of moving natural beach material from any point seaward of the first line of stable vegetation to create a protective sand dike or to obtain material for any other purpose) is development and may be permitted as an erosion response if the following conditions are met:

(A) The area on which this activity is being performed shall maintain a slope of adequate grade so as to not endanger the public or the public's use of the beach and shall follow the pre-emergency slope as closely as possible. The movement of material utilizing a bulldozer, front end loader, backhoe, scraper, or any type of earth moving or construction equipment shall not exceed one foot in depth measured from the pre-activity surface elevation;

(B) The activity shall not exceed the lateral bounds of the applicant's property unless he has permission of the adjoining land owner(s);

(C) Movement of material from seaward of the mean low water line will require a CAMA Major Development and State Dredge and Fill Permit;

(D) The activity shall not increase erosion on neighboring properties and shall not have an adverse effect on natural or cultural resources;

(E) The activity may be undertaken to protect threatened on-site waste disposal systems as well as the threatened structure's foundations.

(b) Dune Establishment and Stabilization. Activities to establish dunes shall be allowed so long as the following conditions are met:

(1) Any new dunes established shall be aligned to the greatest extent possible with existing adjacent dune ridges and shall be of the same general configuration as adjacent natural dunes.

(2) Existing primary and frontal dunes shall not, except for beach nourishment and emergency situations, be broadened or extended in an oceanward direction.

(3) Adding to dunes shall be accomplished in such a manner that the damage to existing vegetation is minimized. The filled areas shall be immediately replanted or temporarily stabilized until planting can be successfully completed.

(4) Sand used to establish or strengthen dunes shall be of the same general characteristics as the sand in the area in which it is to be placed.

(5) No new dunes shall be created in inlet hazard areas.

(6) Sand held in storage in any dune, other than the frontal or primary dune, may be redistributed within the AEC provided that it is not placed any farther oceanward than the crest of a primary dune or landward toe of a frontal dune.

(7) No disturbance of a dune area shall be allowed when other techniques of construction can be utilized and alternative site locations exist to avoid unnecessary dune impacts.

(c) Structural Accessways:

(1) Structural accessways shall be permitted across primary dunes so long as they are designed and constructed in a manner that entails negligible alteration on the primary dune. Structural accessways shall not be considered threatened structures for the purpose of Paragraph (a) of this Rule.

(2) An accessway shall be conclusively presumed to entail negligible alteration of a primary dune provided that:

(A) The accessway is exclusively for pedestrian use;

(B) The accessway is less than six feet in width;

(C) The accessway is raised on posts or pilings of five feet or less depth, so that wherever possible only the posts or pilings touch the frontal dune. Where this is deemed impossible, the structure shall touch the dune only to the extent absolutely necessary. In no case shall an accessway be permitted if it will diminish the dune's capacity as a protective barrier against flooding and erosion; and

(D) Any areas of vegetation that are disturbed are revegetated as soon as feasible.

(3) An accessway which does not meet Part (2)(A) and (B) of this Paragraph shall be permitted only if it meets a public purpose or need which cannot otherwise be met and it meets Part (2)(C) of this Paragraph. Public fishing piers shall not be deemed to be prohibited by this Rule, provided all other applicable standards are met.

(4) In order to avoid weakening the protective nature of primary and frontal dunes a structural accessway (such as a "Hatteras ramp") shall be provided for any off-road vehicle (ORV) or emergency vehicle access. Such accessways shall be no greater than 10 feet in width and shall be constructed of wooden sections fastened together over the length of the affected dune area.

(d) Building Construction Standards. New building construction and any construction identified in .0306(a)(5) and 07J .0210 shall comply with the following standards:

(1) In order to avoid danger to life and property, all development shall be designed and placed so as to minimize damage due to fluctuations in ground elevation and wave action in a 100-year storm. Any building constructed within the ocean hazard area shall comply with relevant sections of the North Carolina Building Code including the Coastal and Flood Plain Construction Standards and the local flood damage prevention ordinance as required by the National Flood Insurance Program. If any provision of the building code or a flood damage prevention ordinance is inconsistent with any of the following AEC standards, the more restrictive provision shall control.

(2) All building in the ocean hazard area shall be on pilings not less than eight inches in diameter if round or eight inches to a side if square.

(3) All pilings shall have a tip penetration greater than eight feet below the lowest ground elevation under the structure. For those structures so located on or seaward of the primary dune, the pilings shall extend to five feet below mean sea level.

(4) All foundations shall be adequately designed to be stable during applicable fluctuations in ground elevation and wave forces during a 100-year storm. Cantilevered decks and walkways shall meet this standard or shall be designed to break-away without structural damage to the main structure.

History Note: *Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b)(6)a.,b.,d.; 113A-115.1; 113A-124;*
Eff. June 1, 1979;
Filed as a Temporary Amendment Eff. June 20, 1989, for a period of 180 days to expire on December 17, 1989;

Amended Eff. August 3, 1992; December 1, 1991; March 1, 1990; December 1, 1989;
RRC Objection Eff. November 19, 1992 due to ambiguity;
RRC Objection Eff. January 21, 1993 due to ambiguity;
Amended Eff. March 1, 1993; December 28, 1992;
RRC Objection Eff. March 16, 1995 due to ambiguity;
Amended Eff. April 1, 1999; February 1, 1996; May 4, 1995;
Temporary Amendment Eff. July 3, 2000; May 22, 2000;
Amended Eff. May 1, 2013; July 1, 2009; April 1, 2008; February 1, 2006; August 1, 2002.

15A NCAC 07H .0304 AECS WITHIN OCEAN HAZARD AREAS

The ocean hazard AECs contain all of the following areas:

(1) Ocean Erodible Area. This is the area where there exists a substantial possibility of excessive erosion and significant shoreline fluctuation. The oceanward boundary of this area is the mean low water line. The landward extent of this area is the distance landward from the first line of stable and natural vegetation as defined in 15A NCAC 07H .0305(a)(5) to the recession line established by multiplying the long-term annual erosion rate times 90; provided that, where there has been no long-term erosion or the rate is less than two feet per year, this distance shall be set at 120 feet landward from the first line of stable natural vegetation. For the purposes of this Rule, the erosion rates are the long-term average based on available historical data. The current long-term average erosion rate data for each segment of the North Carolina coast is depicted on maps entitled "2011 Long-Term Average Annual Shoreline Rate Update" and approved by the Coastal Resources Commission on May 5, 2011 (except as such rates may be varied in individual contested cases or in declaratory or interpretive rulings). In all cases, the rate of shoreline change shall be no less than two feet of erosion per year. The maps are available without cost from any Local Permit Officer or the Division of Coastal Management on the internet at http://www.nccoastalmanagement.net.

(2) Inlet Hazard Area. The inlet hazard areas are natural-hazard areas that are especially vulnerable to erosion, flooding, and other adverse effects of sand, wind, and water because of their proximity to dynamic ocean inlets. This area extends landward from the mean low water line a distance sufficient to encompass that area within which the inlet migrates, based on statistical analysis, and shall consider such factors as previous inlet territory, structurally weak areas near the inlet, and external influences such as jetties and channelization. The areas on the maps identified as suggested Inlet Hazard Areas included in the report entitled INLET HAZARD AREAS, The Final Report and Recommendations to the Coastal Resources Commission, 1978, as amended in 1981, by Loie J. Priddy and Rick Carraway are incorporated by reference and are hereby designated as Inlet Hazard Areas, except for:

(a) the Cape Fear Inlet Hazard Area as shown on the map does not extend northeast of the Bald Head Island marina entrance channel; and

(b) the former location of Mad Inlet, which closed in 1997.

In all cases, the Inlet Hazard Area shall be an extension of the adjacent ocean erodible areas and in no case shall the width of the inlet hazard area be less than the width of the adjacent ocean erodible area. This report is available for inspection at the Department of Environmental Quality, Division of Coastal Management, 400 Commerce Avenue, Morehead City, North Carolina or at the website referenced in Item (1) of this Rule. Photocopies are available at no charge.

(3) Unvegetated Beach Area. Beach areas within the Ocean Hazard Area where no stable natural vegetation is present may be designated as an Unvegetated Beach Area on either a permanent or temporary basis as follows:

(a) An area appropriate for permanent designation as an Unvegetated Beach Area is a dynamic area that is subject to rapid unpredictable landform change due to wind and wave action. The areas in this category shall be designated following studies by the Division of Coastal Management. These areas shall be designated on maps approved by the Coastal Resources Commission and available without cost from any Local Permit Officer or the Division of Coastal Management on the internet at the website referenced in Item (1) of this Rule.

(b) An area that is suddenly unvegetated as a result of a hurricane or other major storm event may be designated by the Coastal Resources Commission as an Unvegetated Beach Area for a specific period of time, or until the vegetation has re-established in accordance with 15A NCAC 07H .0305(a)(5). At the expiration of the time specified or the re-establishment of the vegetation, the area shall return to its pre-storm designation.

History Note: *Authority G.S. 113A-107; 113A-107.1; 113A-113; 113A-124;*
Eff. September 9, 1977;
Amended Eff. December 1, 1993; November 1, 1988; September 1, 1986; December 1, 1985;
Temporary Amendment Eff. October 10, 1996;
Amended Eff. April 1, 1997;
Temporary Amendment Eff. October 10, 1996 Expired on July 29, 1997;
Temporary Amendment Eff. October 22, 1997;
Amended Eff. July 1, 2016; September 1, 2015; May 1, 2014; February 1, 2013; January 1, 2010; February 1, 2006; October 1, 2004; April 1, 2004; August 1, 1998.