

**NC COASTAL RESOURCES COMMISSION**  
**September 13-14, 2016**  
**New Hanover County Government Complex**  
**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.

**Tuesday, September 13<sup>th</sup>**

- 10:00 COASTAL RESOURCES ADVISORY COUNCIL MEETING (HR Training Rm.)** Rudi Rudolph, Vice Chair
- 1:15 COMMISSION CALL TO ORDER\* (HR Training Room)** Frank Gorham, Chair
- Roll Call
  - Chair's Comments
  - Donald R. Van Der Vaart, Secretary – Department of Environmental Quality
- 1:30 VARIANCES**
- Nixon - (*CRC-VR-16-06*), Wilmington, ¼ width rule Tara MacPherson, Christine Goebel  
Merrie Jo Alcock, Esq.
  - NC Div. Of Parks - (*CRC-VR-16-07*), Ft. Fisher/Kure Beach, Oceanfront setback Sean Farrell, Katie Mills  
Jonathan Avery, Esq.
  - Coastal Yacht Hangers - (*CRC-VR-16-08*), Beaufort, ¼ width rule Roy Brownlow, Christine Goebel  
Clark Wright, Esq.
- 2:30 BREAK**
- 2:45 VARIANCES CONT.**
- Town of N. Topsail Beach - (*CRC-VR-16-09*), Sandbags/Geotextile tube Jason Dail, Christine Goebel  
Brian Edes, Esq.
- 3:45 CRC RULE DEVELOPMENT**
- State Ports Inlet Management AEC Development (*CRC-16-32*) Heather Coats
  - Commission Discussion
  - Amendments to 15A NCAC 7L Planning & Management Grant Program (*CRC-16-33*) Mike Christenbury
- 4:15 ESTUARINE SHORELINE STABILIZATION** Whitney Jenkins
- DCM Living Shoreline Strategy Implementation (*CRC-16-34*)
- 4:45 RECESS**

**Wednesday, September 14<sup>th</sup>**

- 9:00 COMMISSION CALL TO ORDER\* (HR Training Room)** Frank Gorham, Chair
- Roll Call
  - Chair's Comments
  - Approval of July 12-13, 2016 Meeting Minutes Frank Gorham, Chair
  - Executive Secretary's Report Braxton Davis
  - CRAC Report Rudi Rudolph, Vice Chair
- 9:30 DIVISION OF COASTAL MANAGEMENT DIGITAL RESOURCES**
- DCM Website Navigation Sarah Young
  - Mapping Tools and Data Ken Richardson
- 10:00 COASTAL PROGRAM IMPLEMENTATION**

- Compliance Program Overview (*CRC-16-35*) Roy Brownlow
- 10:30 BEACH & INLET MANAGEMENT**
- Shallow Draft Navigation Channel Dredging and Aquatic Weed Fund Darren England, DWR
- 11:00 BREAK**
- 11:15 BEACH & INLET MANAGEMENT CONT.**
- Development Line Procedures Overview Ken Richardson
  - Town of Oak Island Development Line Approval (*CRC-16-36*) Steve Edwards,  
Bldg. Code Administrator
  - Town of Carolina Beach Development Line Approval (*CRC-16-37*) Jake Vares,  
Planning & Zoning Coordinator
  - Jeremy Hardison,  
Senior Planner
  - Ed Parvin,  
Planning Director
- 12:00 PUBLIC INPUT AND COMMENT** Frank Gorham, Chair NC
- 12:15 LUNCH**
- 1:15 PUBLIC HEARING**
- 15A NCAC 7H .0306 General Use Standards For Ocean Hazard Areas - Grandfathering Provisions Tancred Miller
- 1:30 OLD/NEW BUSINESS** Frank Gorham, Chair
- Legal Update Mary Lucasse
- 2:00 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.*



N.C. Division of Coastal Management

[www.nccoastalmanagement.net](http://www.nccoastalmanagement.net)

Next Meeting: November 30-December 1, 2016; Atlantic Beach



PAT MCCRORY

*Governor*

DONALD R. VAN DER VAART

*Secretary*

BRAXTON DAVIS

*Director*

September 1, 2016

**CRC-16-32**

**TO:** Coastal Resources Commission

**FROM:** Heather Coats, Assistant Major Permits Coordinator, Wilmington Office

**SUBJECT: Proposed State Port Inlet Management Area of Environmental Concern (AEC)**

Beginning in July 2014, the Commission directed DCM staff to develop management objectives and use standards for a new AEC category. The new AEC category would be associated with the two inlets in North Carolina that include federally maintained shipping channels: Beaufort Inlet and the Cape Fear River Inlet. The new AEC category was a result of recommended priorities set in the CRC's Inlet Management Study.

Staff first met with representatives from the adjacent local governments to solicit input regarding the application of current rules, as well as possible new management strategies they believe would address the unique circumstances experienced at these inlets. Discussions with the Village of Bald Head Island revolved around needs previously discussed as part of the Cape Fear River AEC Feasibility Study, which was mandated by the General Assembly in 2012. The Village expressed an interest in more flexible sandbag rules – particularly the ability to protect dunes in addition to primary structures and infrastructure – as well as the allowable location and size of sandbags and sandbag structures. The Village also stated that new rules for the AEC should advocate the beneficial use of dredged material as part of Coastal Zone Management Act (CZMA) federal consistency process.

Discussions with representatives from the Town of Caswell Beach and the NC Baptist Assembly at Ft. Caswell primarily focused on the federal designation of Ft. Caswell as a national historic site and the need for more flexibility to address shoreline erosion on the property.

The main topic of discussion with Carteret County's Shore Protection Manager was beneficial use of beach-compatible dredged material and the limitations of the current federal Dredged Material Management Plan (DMMP) at Beaufort Inlet. Concerns were expressed that a lack of funding should not be considered sufficient justification to avoid beneficial use of beach-quality material.

Staff drafted an AEC definition and rule language for a new State Port Inlet Management AEC for CRC discussion at your October 2014 meeting. The draft rule language also addressed action taken by the legislature (S.L. 2014-120) to remove the Inlet Hazard Area designation for inlets providing access to a State Port via a channel maintained by the United States Army Corps of Engineers.

Over the first year of AEC development, discussion focused on the beneficial use rule language requiring beach-compatible dredged materials to be placed on active nearshore, beach or inlet shoal system and whether the rule should further require all sand be placed on adjacent beaches. Strong objections were received from the US Army Corps of Engineers, stating that removing flexibility could seriously jeopardize the continued operation of the NC State Port at Morehead City. Following additional discussion with the US Army Corps of Engineers and other stakeholders, the beneficial use requirement was removed from the draft rule. A working group was instead formed to create a Memorandum of Agreement that would facilitate beneficial use through federal, state, and local cost-sharing.

The Coastal Resources Advisory Council (CRAC) also discussed the remaining components of the draft AEC rule language, including the sandbag provisions, at their April and July 2015 meetings. They recommended the AEC definition specify that the AEC includes the Cape Fear and Beaufort Inlets. The CRAC also recommended that a minimum sandbag size be specified, in accordance with current sandbag rule language. The draft rule language has been updated to include these recommendations.

The 2015 Appropriations Bill (S.L. 2015-241) required that the CRC adopt specific amendments to the current sandbags rules. Because much of the State Ports Inlet Management AEC draft rules pertain to sandbag use standards, State Ports Inlet Management AEC development has been suspended pending an evaluation of the current sandbag rules applicable to all Ocean Hazard AECs.

Staff met with Town of Caswell Beach's new Mayor Deborah Ahlers and Town Administrator, Chad Hicks, in April 2016 to discuss the history of the State Ports Inlet Management AEC development and the Town's previous comments. Mayor Ahlers and Mr. Hicks reaffirmed the Town's previous position and only wished to reiterate the Town's desire to have its entire jurisdiction within the limits of the AEC, rather than limiting the boundary to the "Area of Inlet Influence" that was previously identified by the CRC Science Panel. The Town's request is due to erosion that has historically occurred west of the Science Panel's boundary, which has threatened the primary road and access to much of the Town's jurisdiction. The Town wants to have the ability to use the less restrictive sandbag rules to protect Caswell Beach Road, if needed in the future, as a response to erosion. The Town has also reiterated their desire to have as much flexibility as possible to address shoreline erosion, which they attribute to boat traffic in the federal channel. With the sandbag rule changes now drafted, we have more direction to pick this back up where it was left off. Attached is the updated draft rule language as well as proposed boundaries for the AEC, which reflect past discussions and input of the affected local governments.

As drafted, the rule language defines the State Port Inlet Management AEC, allows the use of sandbags to protect primary dunes as well as structures and infrastructure, redefines the means of determining what is imminently threatened within the new AEC, and allows for the use of larger

sized bags (e.g. geotextile tubes) for temporary erosion control structures. In addition, the draft rules address action taken by the legislature through SL2014-120 to remove the Inlet Hazard Area designation for areas meeting one of the following three criteria: the location of a former inlet which has been closed for at least 15 years; inlets that due to shoreline migration, no longer include the current location of the inlet; and for inlets providing access to a State Port via a channel maintained by the United States Army Corps of Engineers.

Staff is looking forward to discussing the proposed rule language and boundaries for this new AEC development at the upcoming meeting in September.



**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 and 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 inlets providing access to a State Port via a channel maintained by the United States Army Corps of Engineers;
  - (b) inlets that due to shoreline migration, no longer include the current location of the inlet; and
  - ~~(b)(c)~~ 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 and natural vegetation is present may be designated as an Unvegetated Beach Area Areas 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.
- (4) State Ports Inlet Management Area. These are areas adjacent to and within Beaufort Inlet and the mouth of the Cape Fear River, providing access to a State Port via a channel maintained by the United States Army Corps of Engineers. These areas are unique due to the influence of federally-maintained channels, and the critical nature of maintaining shipping access to North Carolina's State Ports. These areas may require specific management strategies not warranted at other inlets to address erosion and shoreline stabilization. State Ports Inlet Management Areas shall extend from the mean low water line landward as designated on maps approved by the Coastal Resources Commission and available without cost from

the Division of Coastal Management, and on the internet at the website referenced in Sub-item(1)(a) of this Rule.

**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 and State Ports Inlet Management 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 nonoceanfront 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.

**15A NCAC 07H .0313 USE STANDARDS FOR STATE PORTS INLET MANAGEMENT AREAS**

**Development within State Ports Inlet Management areas, as defined by Rule .0304 of this Section, shall be permitted in accordance with the following standards:**

- (a) **All development in the State Ports Inlet Management Areas shall be set back from the first line of stable and natural vegetation, static vegetation line, or measurement line at a distance in accordance with 15A NCAC 7H .0305(a)(5), except for development exempted under 15A NCAC 7H .0309.**

- (b) Notwithstanding the use standards for temporary erosion control structures described in 15A NCAC 7H .0308(a)(2), a local government may apply for a permit to seek protection of an imminently threatened frontal or primary dune, public and private structures and/or infrastructure within a State Ports Inlet Management Area. For the purpose of this rule, a frontal or primary dune, structure, or infrastructure shall be considered imminently threatened in a State Ports Inlet Management Area if:
- (1) its foundation, septic system, right-of-way in the case of roads, or waterward toe of dune is less than 20 feet away from the erosion scarp; or
  - (2) site conditions, such as flat beach profile or accelerated erosion, increase the risk of imminent damage to the structure as determined by the Director of the Division of Coastal Management; or
  - (3) the frontal or primary dune or infrastructure will be imminently threatened within six (6) months as certified by persons meeting applicable State occupational licensing requirements; or
  - (4) the rate of erosion from the erosion scarp or shoreline within 100 feet of the infrastructure, structure, frontal or primary dune was greater than 20 feet over the preceding 30 days.
- Permit applications to protect property where no structures are imminently threatened require consultation with the US Army Corps of Engineers.
- (c) Temporary erosion control structures constructed by a local government shall have a base width not exceeding 20 feet, and a height not to exceed six feet. Individual sandbags shall be tan in color and be a minimum of three feet wide and seven feet in length when measured flat.
- (d) Established common-law and statutory public rights of access to the public trust lands and waters in State Ports Inlet Management Areas shall not be eliminated or restricted. Development shall not encroach upon public accessways nor shall it limit the intended use of the accessways;
- (e) Except where inconsistent with the above standards, all other rules in this Subchapter pertaining to development in the ocean hazard areas shall be applied to development within the State Ports Inlet Management Areas.
- (f) 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 State Ports Inlet Management Areas, 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 State Ports Inlet Management 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, and .1200.



**\* Draft Concept \***  
**State Port Area of Environmental Concern (AEC)**  
*Beaufort Inlet*

Radio Island

Ft. Macon State Park

Beaufort Inlet

Shackleford Banks



**Legend**

**DRAFT CONCEPT of State Port AEC**

CRC Science Panel's 2010 Proposed IHA (modified)

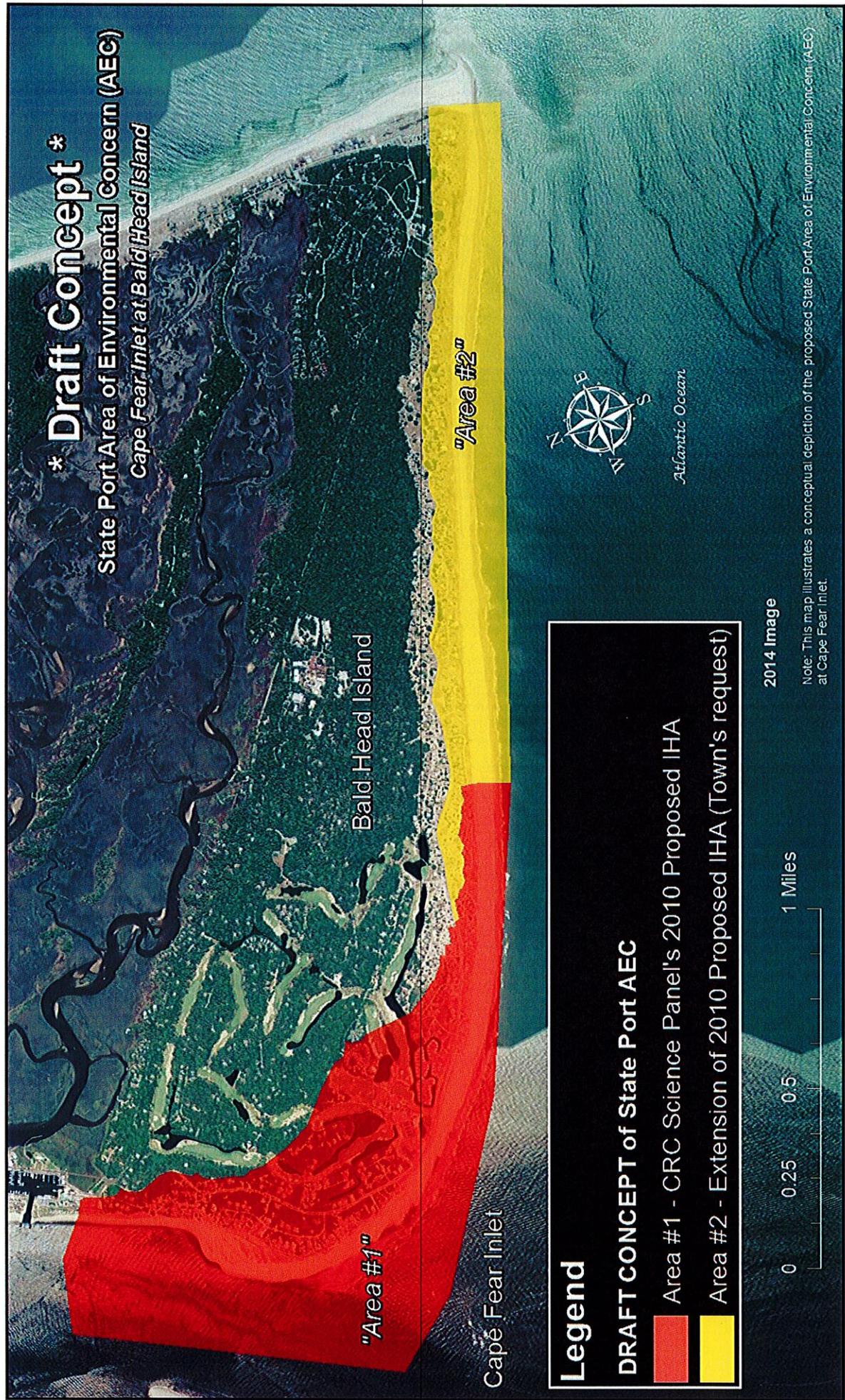


2014 Image

*Atlantic Ocean*  
 Note: This map illustrates a conceptual depiction of the proposed State Port Area of Environmental Concern (AEC) at Cape Fear Inlet.

# \* Draft Concept \*

State Port Area of Environmental Concern (AEC)  
Cape Fear Inlet at Bald Head Island



Bald Head Island

"Area #2"

"Area #1"

Cape Fear Inlet

## Legend

### DRAFT CONCEPT of State Port AEC

-  Area #1 - CRC Science Panel's 2010 Proposed IHA
-  Area #2 - Extension of 2010 Proposed IHA (Town's request)

2014 Image

1 Miles

0 0.25 0.5

Note: This map illustrates a conceptual depiction of the proposed State Port Area of Environmental Concern (AEC) at Cape Fear Inlet.

**\* Draft Concept \***  
**State Port Area of Environmental Concern (AEC)**  
*Cape Fear Inlet at Caswell Beach*



**Legend**

**DRAFT CONCEPT of State Port AEC**

- Area #1 - CRC Science Panel's 2010 Proposed IHA (modified)
- Area #2 - Extension of 2010 Proposed IHA (Town's request)





Coastal Management  
ENVIRONMENTAL QUALITY

PAT MCCRORY

*Governor*

DONALD R. VAN DER VAART

*Secretary*

BRAXTON DAVIS

*Director*

## MEMORANDUM

**To:** Coastal Resources Commission  
**From:** Michael Christenbury, DCM Wilmington District Planner  
**Date:** August 30, 2016  
**Subject:** Proposed Amendments to 15A NCAC 7L Local Planning and Management Grants

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Included in recent revisions to the CAMA Land Use Planning Program were amendments to the 7L Planning & Management Grant Program rules, which outline the criteria for land use plan implementation grants to local governments. These amendments, which focused on separating the land use plan provisions from the planning and management grant program rules were adopted by the Commission in 2015. The next step in the comprehensive review of the CAMA Planning Program has been an assessment of the grants to local governments for planning related projects. In the past, heavy emphasis was placed on the development of land use plans. While that will still be an eligible activity under the Planning and Management Grant Program, the Division would like to see more flexibility offered to local governments in the types of projects that could be funded.

Attached you will find proposed amendments to the 15A NCAC 7L Local Planning and Management Grant requirements. The purpose of the draft rule language is to shift the primary focus of grant funding from local land use plans to a broad variety of local projects which address specific coastal issues. The draft language also allows greater flexibility for the Division of Coastal Management (DCM) to focus on specific issues or areas of interest by the CRC in awarding grant funding for local projects.

Projects that may be funded under the proposed draft language are intended to align with and further the CRC's goals of Public Access, Natural Hazards, Land Use Compatibility, Infrastructure Carrying Capacity, Habitat Enhancement, and Other Topics or Special Issues such as estuarine shoreline stabilization, abandoned vessels/marine debris, and work on coastal issues within the FEMA Community Rating System. The types of projects envisioned include expanded education and outreach efforts, special planning efforts focused on coastal resources or issues, improvements in intergovernmental coordination, targeted research studies, and the development of local ordinances directly related to coastal concerns.

At our September meeting, I will present an overview of the changes, both in focus of the program as well as process for CRC involvement. Following comments and any requested changes by the Commission, Staff will begin the rulemaking process with the intention of having amendments in place for the 2017 solicitation of projects.

**SUBCHAPTER 7L - LOCAL PLANNING AND MANAGEMENT GRANTS**

**SECTION .0100 – PURPOSE AND AUTHORITY**

**15A NCAC 07L .0101 AUTHORITY**

The rules in this Subchapter are promulgated pursuant to G.S. 113A-112 and G.S. 113A-124 by the Secretary of the Department of **Environment and Natural Resources (DENR) Environmental Quality (DEQ)** in the Secretary's capacity as executive head of the state agency designated by the Governor to administer state funds and to receive and administer federal funds granted by the National Oceanic and Atmospheric Administration under the Federal Coastal Zone Management Act.

*History Note: Authority G.S. 113A-112; 113A-124;  
Eff. September 1, 1978;  
Amended Eff. August 1, 2002; October 1, 1991.*

**15A NCAC 07L .0102 PURPOSE**

The purpose of the Rules in this Subchapter is to establish the criteria and procedures for funding the Department of Environmental Quality program of grants for local land use plans or comprehensive plans, hereinafter referred to as "the plan", and coastal planning and management projects within North Carolina's coastal area. These funds are made available to assist local governments in developing and implementing plans and management strategies for their coastal resources, as mandated by the CAMA. Funds shall be used in refining and carrying out local land use planning and management programs by local governments within the 20 counties defined by the Coastal Area Management Act in G.S. 113A-103.

*History Note: Authority G.S. 113A-112; 113A-124;  
Eff. September 1, 1978;  
Amended Eff. March 1, 2016; August 1, 2002; June 1, 1980.*

**SECTION .0200 – GENERAL STANDARDS**

- 15A NCAC 07L .0201 ELIGIBLE APPLICANTS**
- 15A NCAC 07L .0202 PRIORITIES FOR FUNDING**
- 15A NCAC 07L .0203 ELIGIBLE PROJECTS**
- 15A NCAC 07L .0204 PROJECT DURATION**
- 15A NCAC 07L .0205 CONSISTENCY WITH PLANS AND GUIDELINES**
- 15A NCAC 07L .0206 RELATION TO OTHER FUNDING**

*History Note: Authority G.S. 113A-112; 113A-124;  
Eff. September 1, 1978;  
Amended Eff. November 1, 1984; June 1, 1982; March 13, 1981; June 1, 1980;  
Repealed August 1, 2002.*

**SECTION .0300 – APPLICATION PROCESS**

- 15A NCAC 07L .0301 APPLICATION FORM**
- 15A NCAC 07L .0302 SUBMITTAL**
- 15A NCAC 07L .0303 PROCEDURE FOR PRELIMINARY APPROVAL OR DISAPPROVAL**
- 15A NCAC 07L .0304 ASSISTANCE IN COMPLETING APPLICATIONS**

*History Note: Authority G.S. 113A-112; 113A-124;  
Eff. September 1, 1978;  
Amended Eff. October 1, 1991; May 1, 1990; November 1, 1984; June 1, 1982; March 13, 1981;  
June 1, 1980;  
Repealed August 1, 2002.*

**SECTION .0400 – GRANT ADMINISTRATION**

|                           |  |
|---------------------------|--|
| <b>15A NCAC 07L .0401</b> | <b>CONTRACT AGREEMENT</b>                    |
| <b>15A NCAC 07L .0402</b> | <b>ACCOUNTABILITY</b>                        |
| <b>15A NCAC 07L .0403</b> | <b>PAYMENT</b>                               |
| <b>15A NCAC 07L .0404</b> | <b>PROGRESS REPORTS AND GRANT MONITORING</b> |
| <b>15A NCAC 07L .0405</b> | <b>PROJECT COMPLETION REPORT</b>             |

*History Note: Authority G.S. 113A-112; 113A-124;  
Eff. September 1, 1978;  
Amended Eff. March 13, 1981; June 1, 1980; September 1, 1978;  
Repealed August 1, 2002.*

SECTION .0500 - GENERAL STANDARDS

15A NCAC 07L .0501 ELIGIBLE APPLICANTS

- (a) Applications for grants for local planning and management funds may be made by the following:
- (1) Coastal Counties as defined in CAMA; and
  - (2) Municipalities within coastal counties.
- (b) Two or more eligible applicants may submit a joint application for funds to carry out jointly sponsored or regional projects.

*History Note:* Authority G.S. 113A-112; 113A-124;  
Eff. August 1, 2002.

15A NCAC 07L .0502 CONSISTENCY WITH PLANS AND RULES

*History Note:* Authority G.S. 113A-112; 113A-124;  
Eff. August 1, 2002;  
Repealed March 1, 2016.

15A NCAC 07L .0503 PRIORITIES FOR FUNDING LAND USE PLANS PLANNING AND IMPLEMENTATION MANAGEMENT PROJECTS

(a) The Department of Environmental Quality (DEQ) program of grants for coastal planning and management projects provides funding to assist local governments in the 20 counties as defined by the Coastal Area Management Act in the refining and implementing of plans and management strategies for their coastal resources. In funding local planning and management grants, the Department of Environmental Quality (DEQ) shall follow these general priorities for local planning and management grants:

- (1) The highest priority, Category I, includes projects mandated by statute, including initial and updated or amended land use plans or comprehensive plans, hereinafter referred to as the plan, local participation in projects initiated by DEQ, and select projects DEQ indicates urgently that need local attention in order to meet Coastal Resources Commission (CRC) management topics goals pursuant to 15A NCAC 07B .0702(d)(2). 15A NCAC 07B .0702(d)(2) or contained within this Subparagraph. Priority management topics shall be designated on an annual basis following consultation with the CRC and may include, but are not limited to, expanded education and outreach efforts, special planning efforts focused on coastal resources or issues, improvements in intergovernmental coordination, targeted research or studies, and the development of local ordinances directly related to coastal concerns and not in contradiction with state rules. Projects selected for funding shall further the CRC's goals for the designated topics outlined below. Examples of eligible projects and their associated priority category include:
  - (A) Those activities designated by DEQ on an annual basis, following consultation with the CRC and local governments, to be necessary to bring local plans into compliance with state rules for land use planning; or
  - (B) Adopting, amending, or updating plans to reflect changed conditions which may include necessary data collection, public participation, and policy development.
- (2) The second priority, Category II, includes projects related to carrying out the explicit goals of the Coastal Area Management Act (CAMA), for which DEQ indicates there is a high priority for local actions or projects which are coastally dependent (water-related) or projects to implement the plan such as public facilities planning or land use regulations preparation. Examples of eligible projects and their associated priority category include:
  - (A) Adopting or amending ordinances to further secure compliance with state rules in AECs pursuant to 15A NCAC 07H;
  - (B) Beach access plans and studies which may include inventory and identification of sites, design of access improvements, acquisition plans and studies, and legal studies necessary to determine the extent of public use rights;
  - (C) Erosion control plans and studies which may include mapping, erosion rate measurement, design of protection strategies for public lands, cost-benefit analysis, and relocation plans and strategies;
  - (D) Studies and planning leading to the nomination of new AECs as described in 15A NCAC 07H .0503, or locally significant environmental areas;
  - (E) Waterfront redevelopment and renewal plans and studies including feasibility studies, site design studies, and plans and studies for improving or enhancing waterfront parks and public areas which may include site design, use studies, and cost analysis;
  - (F) Preparing, adopting, or amending ordinances necessary to carry out CRC certified plans, state rules, and the state coastal zone management plan which may include regulations

- related to zoning, subdivision, stormwater management, dune protection beyond AEC standards, sanitation, building, mobile homes, historic preservation, signs, natural area protection, and environmental impact statements.
- (3) The third priority, Category III, includes projects related to improving local coastal management and land use management capabilities. Examples of eligible projects and their associated priority category include:
- (A) Initial water and sewer plans and studies;
  - (B) Land use related capital facilities programming;
  - (C) Base mapping as a management tool;
  - (D) Other planning, studies, and data acquisition supportive of coastal planning and management which may include public education or involvement on coastal issues; solid waste planning; port planning; and sport and commercial fishing studies;
  - (E) Enforcement of ordinances adopted to carry out certified plans;
  - (F) Coordination of local coastal management activities with other local management activities which may include internal coordination, and city-county coordination; or
  - (G) Other coastally related management projects.
- (1) Public Access: Maximize public access to the beaches and the public trust waters of the coastal region.
- (2) Land Use Compatibility: Ensure that development and use of resources or preservation of land balance protection of natural resources and fragile areas with economic development, avoids risks to public health safety and welfare.
- (3) Infrastructure Carrying Capacity: Ensure that public infrastructure systems are sized, located and managed so the quality and productivity of AECs and other fragile areas are protected or restored.
- (4) Natural Hazards: Conserve and maintain barrier dunes, beaches, flood plains, and other coastal features for their natural storm protection function and their natural resources giving recognition to public health, safety, and welfare issues.
- (5) Habitat Enhancement: Maintain, protect, and where possible enhance coastal habitats; for example, marsh restoration.
- (6) Other Topics or Special Issues: developed areas and working waterfronts, urban waterfront revitalization, economic growth and development, redevelopment and revitalization, recreation and tourism, historic and cultural resources, public trust rights, water use and water quality, stormwater management, erosion control, shoreline protection and management, open space, parks and recreation, storm recovery, farmland preservation and management, historic and cultural resources, stakeholder and citizen participation, and transportation.
- (b) In addition, DEQ shall take into consideration the following factors listed in order of importance to establish priorities for individual projects: projects within the general priority categories:
- (1) project's contribution towards meeting CRC's prioritized management topics in 15A NCAC 07B .0702(d)(2);
  - (2) the extent to which the project includes measures of environmental protection beyond Areas of Environmental Concern (AEC) standards of Subchapter 15A NCAC 07H;
  - (3) applicant's urgency of need;
  - (4) past history of applicant's implementation of planning and management grant program activities;
  - (5) feasibility of completion of project by the applicant;
  - (6) past experience with land use planning and implementation projects as well as present management and administrative capabilities;
  - (7) potential applicability of the project to other coastal area municipalities and counties; and
  - (8) geographic distribution of applicants.
- (c) Matching fund requirements are based on the North Carolina Department of Commerce's Tier designations, as outlined by the Lee Act (G.S. 105-129.3). Local government contributions for land use planning and management implementation projects shall be at least 25 percent of the project costs except for Tier 1 designated counties and their respective municipalities which shall have a local government contribution of at least 10 percent of the project costs. At least one half of the local contribution shall be cash match; the remainder may be in-kind match.
- (d) Any local government whose plan is not certified due to failure to meet the criteria listed in 15A NCAC 07B or that has not submitted the most recent Required Periodic Implementation Status Report as described in 15A NCAC 07B, shall not receive further funding under this program until these inconsistencies are corrected.

History Note: Authority G.S. 113A-112; 113A-124;  
Eff. August 1, 2002;  
Amended Eff. March 1, 2016.

*Proposed amendments September 1, 2016*

- 15A NCAC 07L .0504 ELIGIBLE PROJECTS
- 15A NCAC 07L .0505 SCOPING OF PLANNING NEEDS
- 15A NCAC 07L .0506 PUBLIC PARTICIPATION
- 15A NCAC 07L .0507 MINIMUM CAMA LAND USE PLANNING AND FUNDING REQUIREMENTS
- 15A NCAC 07L .0508 STATE TECHNICAL ASSISTANCE, REVIEW AND COMMENT ON PRELIMINARY DRAFT PLAN
- 15A NCAC 07L .0509 INTERGOVERNMENTAL COORDINATION
- 15A NCAC 07L .0510 PUBLIC HEARING AND LOCAL ADOPTION REQUIREMENTS
- 15A NCAC 07L .0511 REQUIRED PERIODIC IMPLEMENTATION STATUS REPORTS
- 15A NCAC 07L .0512 SUSTAINABLE COMMUNITIES COMPONENT OF THE PLANNING PROGRAM
- 15A NCAC 07L .0513 PROJECT DURATION
- 15A NCAC 07L .0514 RELATION TO OTHER FUNDING

*History Note: Authority G.S. 113A-112; 113A-124;  
Eff. August 1, 2002;  
Repealed March 1, 2016.*

**SECTION .0600 - APPLICATION PROCESS**

- 15A NCAC 07L .0601 APPLICATION FORM
- 15A NCAC 07L .0602 ASSISTANCE IN COMPLETING APPLICATIONS AND SUBMITTAL
- 15A NCAC 07L .0603 PROCEDURE FOR APPROVAL OR DISAPPROVAL

*History Note: Authority G.S. 113A-112; 113A-124;  
Eff. August 1, 2002;  
Repealed March 1, 2016.*

**SECTION .0700 - GRANT ADMINISTRATION**

- 15A NCAC 07L .0701 CONTRACT AGREEMENT
- 15A NCAC 07L .0702 PROGRESS REPORTS AND GRANT MONITORING
- 15A NCAC 07L .0703 PAYMENT
- 15A NCAC 07L .0704 PROJECT COMPLETION REPORT
- 15A NCAC 07L .0705 ACCOUNTABILITY

*History Note: Authority G.S. 113A-112; 113A-124;  
Eff. August 1, 2002;  
Repealed March 1, 2016.*



PAT MCCRORY  
*Governor*

DONALD R. VAN DER VAART  
*Secretary*

BRAXTON DAVIS  
*Director*

**CRC-16-34**

August 25, 2016

**MEMORANDUM**

**TO:** Coastal Resources Commission

**FROM:** Whitney Jenkins

**SUBJECT:** DCM Living Shoreline Strategy Implementation

Living shorelines include a suite of options for shoreline erosion control that maintain existing connections between upland, intertidal, estuarine, and aquatic areas which are necessary for maintaining water quality, ecosystem services, and habitat values. Unlike vertical stabilization measures such as bulkheads, living shoreline techniques typically use native materials such as marsh plants, oyster shells, and occasionally minimal amounts of structural materials (e.g. stone) to stabilize estuarine shorelines, minimize erosion, and enhance habitats.

Over the past several years, the Division of Coastal Management (DCM) has made significant investments in advocating for the use of living shorelines as an alternative to vertical stabilization measures. In particular, DCM has been working to implement a [Living Shoreline Strategy](#), which identifies short and long-term actions for a range of related issues including permitting, research, mapping, outreach, training, policy, and funding.

DCM has accomplished the following activities as part of the Living Shoreline Strategy from February 2014 through December 2015, which are discussed in further detail in the Living Shoreline Strategy Accomplishments Report (attached):

- **Permit development:** DCM and the CRC have developed two general permits for sill structures, and continue to work toward streamlining the permitting of “marsh sills” in coordination with the U.S. Army Corps of Engineers and various agency and partner organizations.
- **Property Owner Outreach:** Field staff are now able to direct property owners to estuarine shoreline information on the DCM website (see above), which offers various resources for homeowners concerning estuarine shoreline stabilization techniques, including living shorelines. Another outreach tool is a booklet *Weighing Your Options: How to Protect Your Property from Shoreline Erosion*, which was recently updated to reflect new information about living shoreline research, stabilization methods and

materials, and site characteristics that can impact the success or failure of estuarine shoreline stabilization projects at select sites.

- Property Owner, Contractor, Landscaping Professional, and Realtor Training: To promote the use of living shorelines for erosion control, DCM worked with the Coastal Reserve's Coastal Training Program (CTP) to develop free training workshops designed for technical and real estate professionals. In 2015, CTP conducted seven workshops in the northern, central, and southern regions of the coast reaching 365 professionals.
- Informational Signage: Four living shoreline informational signs were installed near three demonstration sites in Carteret County. Two sites on Pivers Island include the marsh sill at the Duke University Marine Lab and the living shoreline at the National Oceanic and Atmospheric Administration (NOAA) Beaufort Lab. The other two signs highlight the Rachel Carson Reserve living shoreline demonstration site and are located at the on-site boardwalk and at the Wildlife Resource Commission's Lennoxville Road boat ramp in Beaufort.
- Leveraging Grant Resources: DMF's Coastal Recreation Fishing License grant program has funded several projects related to living shorelines proposed by partners at UNC-Chapel Hill's Institute of Marine Sciences (UNC IMS).
- Data Collection, GIS Analysis, and Product Development: The estuarine shoreline mapping program (<https://deq.nc.gov/about/divisions/coastal-management/coastal-management-estuarine-shorelines/stabilization/estuarine-shoreline-mapping-project>) analysis report was updated based on 2012 imagery to delineate the shoreline and structures. This imagery provided a snapshot of the entire coast within the same year and yielded the most accurate inventory of shoreline type and structures to date.
- Marsh Sills Research:
  - DCM, Reserve and NOAA staff completed a 5-year monitoring program in 2014 to assess the impact of bulkheads on marsh vegetation. The research team revisited sites that were initially monitored in 2009 as part of the Cooperative Institute for Coastal and Estuarine Environmental Technology-funded project entitled "Sustainable Estuarine Shoreline Stabilization: Research, Education, and Public Policy in North Carolina." The data are being analyzed to evaluate changes among sites from 2009 to 2014.
  - Living Shoreline Efficacy: DCM also studied the effectiveness of living shorelines in high energy environments including effectiveness of loose oyster shell and marsh plantings to control erosion.
  - Resilience of sill vs. bulkhead to large storm events: Reserve staff are working with partners at UNC IMS to survey sills and bulkheads located throughout the coast to obtain pre-storm baseline data. The same protocols will be used following any major storm in the same year. The results will provide an evaluation of the erosion protection provided by marsh sills in comparison to bulkheads, with natural, non-stabilized marshes serving as a control. Results will be used to educate coastal residents of the resilience of different shoreline stabilization techniques to large storms.

Because of the benefits that living shorelines provide, DCM will continue to build upon this strategy and promote living shorelines as viable methods for estuarine shoreline stabilization. DCM is working with federal, state, and academic partners to pursue living shoreline research projects and ensure project results are incorporated into living shoreline design, construction, permitting, and outreach in North Carolina. Short and long-term actions implemented will be modified as new research and resources become available. Additionally, the 2016 Coastal Habitat Protection Plan (CHPP) identifies living shorelines as a priority issue and will be a focus for implementation in the next five years for DCM and CHPP partners. CHPP implementation activities will complement work completed under the Living Shoreline Strategy.

I will provide more detailed examples of the Division 's progress at the upcoming meeting in Wilmington.



# LIVING SHORELINE STRATEGY ACCOMPLISHMENTS REPORT

AUGUST 2016

North Carolina Division of Coastal Management  
North Carolina Division of Marine Fisheries

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# Introduction

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In February 2014, the North Carolina Division of Coastal Management (DCM) and the North Carolina Division of Marine Fisheries (DMF) published the Living Shoreline Strategy to address outreach, public awareness, research, financial incentives, and short and long-term implementation actions needed to advance the use of living shorelines in the state. DCM and its North Carolina Coastal Reserve and National Estuarine Research Reserve (Reserve), and DMF are working with partners to map estuarine shorelines, evaluate impacts of various stabilization methods on marshes and the ecosystem services they provide, assess the resilience of shoreline stabilization methods to large storms, and examine how the data generated from these projects may be used to inform estuarine shoreline stabilization policies for the state. These projects, which have provided significant information about estuarine shorelines and stabilization methodologies, are summarized in the Living Shoreline Strategy.

This Living Shoreline Strategy Accomplishments Report is designed to serve as a supplementary document to the Living Shoreline Strategy. This report includes information about progress made on short and long-term actions identified in the Living Shoreline Strategy from February 2014 through December 2015.

## Living Shoreline Strategy

<https://deq.nc.gov/about/divisions/coastal-management/coastal-management-estuarine-shorelines/stabilization>

## Short-Term Actions

- General Permit
- Property Owner Outreach
- Reprint *Weighing Your Options* Booklet
- Property Owner, Contractor, Landscaping, Professional, and Realtor Training
- Informational Signage
- Leverage Grant Resources

## Long-Term Actions

- Data Collection, GIS Analysis, and Product Development
- Marsh Sills Research
- Certification Program for Contractors
- Partner with the Military and other Public Institutions

# Progress on Short-Term Actions

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## 1. General Permit

*While application of the riprap marsh sill General Permit (15A NCAC 7H .2700) is currently somewhat limited, DCM will continue to coordinate with the U.S. Army Corps of Engineers (USACE) and other federal and state agencies to review the specific conditions of the state General Permit and identify opportunities to further reduce permit processing timelines at the state and federal levels (Living Shoreline Strategy 2014).*

Proposed rule amendments for the General Permit for construction of riprap sills (15 NCAC 7H .2700) are ready for adoption by the N.C. Coastal Resources Commission and include removing DMF and N.C. Division of Water Resources coordination requirements, conditions pertaining to fill for wetland plantings, and other redundant and unnecessary conditions. The USACE is currently in the process of developing a Nationwide Permit for Living Shorelines and DCM staff will coordinate with the USACE and other organizations to identify opportunities to align the riprap sill General Permit with the proposed USACE Nationwide Permit for efficiency and consistency. Additional rule amendments may be also proposed as a result of these coordination meetings.

## 2. Property Owner Outreach

*DCM field representatives will continue to distribute information about living shorelines to property owners, marine contractors, or consultants during site visits if a living shoreline may be appropriate. DCM will also provide continued training for staff utilizing information from research and other studies or observations (Living Shoreline Strategy 2014).*

DCM field representatives provide information regarding living shorelines to homeowners and contractors during site visits when appropriate. Field staff are now able to direct property owners to estuarine shoreline information on the DCM website, which offers various resources for homeowners concerning estuarine shoreline stabilization techniques, including living shorelines. DCM staff have also attended and presented at Reserve Coastal Training Program (CTP) living shoreline workshops to stay up-to-date on the latest research and regulatory updates. Information presented during the CTP living shoreline workshops is detailed in Short-Term Action 4.

The DCM website is updated routinely to include the latest living shoreline research and regulatory information, as well as various estuarine shoreline stabilization options and characteristics dictating what methods work best based on shoreline features. In addition, property owners are informed through social media posts on the Reserve Facebook and Twitter pages. Posts include information about the benefits of living shorelines and links to additional resources, like the *Weighing Your Options* guide. Updates on the latest living shoreline research by DCM and the Reserve is promoted through the Reserve website, newsletter, and social media pages, and the DCM CAMAgram quarterly newsletter.

In an effort to ensure that DCM staff are kept informed of new living shoreline research and educational resources, the CTP will organize and facilitate a DCM staff training, scheduled for fall 2016.

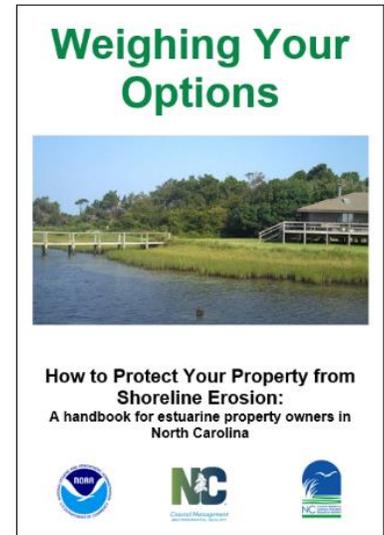
Estuarine shoreline information is located on DCM website at:

<http://deq.nc.gov/about/divisions/coastal-management/coastal-management-estuarine-shorelines>

### 3. Reprint *Weighing Your Options* Guide

*DCM will reprint hard copies of the handbook and continue to make the document available online (Living Shoreline Strategy 2014).*

The *Weighing Your Options: How to Protect Your Property from Shoreline Erosion* guide explores estuarine shoreline stabilization methods and is designed to educate estuarine shoreline property owners about different approaches that work best based on specific site characteristics. Updates were made to *Weighing Your Options* in 2015 to reflect new information about living shoreline research, stabilization methods and materials, and site characteristics that can impact the success or failure of estuarine shoreline stabilization projects at select sites. The revised version is now available electronically on the DCM and Reserve websites. Hard copies of the guide are distributed at CTP living shorelines workshops and at living shoreline conferences attended by staff.



To see the *Weighing Your Options* guide, visit:

[http://portal.ncdenr.org/c/document\\_library/get\\_file?uuid=3ea68378-6f3f-4eb8-bd9d-04f6995f1d24&groupId=61572](http://portal.ncdenr.org/c/document_library/get_file?uuid=3ea68378-6f3f-4eb8-bd9d-04f6995f1d24&groupId=61572)

### 4. Property Owner, Contractor, Landscaping Professional, and Realtor Training

*The successful Estuarine Shoreline Stabilization workshops organized by the Reserve CTP in 2011 and 2012 will be used as a model for DCM to plan future training events and consider new ways to engage marine contractors, landscaping companies, landscape architects, and realtors on the topic of living shorelines. DCM will focus future trainings on existing living shoreline examples and discuss the specific costs that were involved, materials used, equipment access issues, the permitting process, and demonstrated performance of these methods (Living Shoreline Strategy 2014).*

To promote the use of living shorelines for erosion control, DCM worked with Reserve CTP to develop free training workshops designed for technical and real estate professionals. In 2015, CTP conducted seven workshops in the northern, central, and southern regions of the coast. Four living shoreline workshops designed for real estate professionals were held in Wilmington, Beaufort, and Columbia. Workshops were attended by a total of 203 real estate agents.

Workshop objectives included:

- The benefits and limitations of using living shorelines for erosion control;
- Different shoreline stabilization techniques, including living shorelines;
- Living shoreline permitting process;
- Marsh plants that aid in shoreline stabilization; and
- Living shoreline projects in North Carolina.

Eighty-five percent of real estate workshop participants stated that they intend to apply the knowledge and skills gained through the workshops in their work or future decisions.

*"I learned the benefits of using a living shoreline, the permits that are needed, and also the costs involved with installing a living shoreline. I'm sure I'll be able to help my clients who are looking at waterfront property in the future with the knowledge I have gained from this workshop."*

- Testimonial from a real estate agent who attended the Beaufort workshop on May 5, 2015.

Three living shoreline technical workshops were offered to decision-makers in Wilmington, Beaufort, and Columbia. A total of 162 people participated in these workshops, including landscape architects, engineers, and marine contractors.

Workshop objectives included:

- The benefits and limitations of using living shorelines for erosion control;
- Living shorelines design standards based on site conditions;
- Living shoreline projects in North Carolina and beyond;
- Best practices for living shoreline construction and use of marsh plants and oyster shell;
- The permitting process for living shorelines; and
- Business perspectives of building living shorelines.

Eighty percent of the technical workshop participants stated that they intend to apply the knowledge and skills gained through the workshops in their work or future decisions.

*"I benefited the most by listening to the science behind why living shorelines are effective, and also from having the state regulatory folks speak about the current status of permits and what is being done to speed up permitting."*

- Testimonial from a participant at the Columbia workshop on December 2, 2015.

The workshop material was presented by representatives from DCM, N.C. Coastal Federation, N.C. Sea Grant, NOAA's National Centers for Coastal Ocean Science, and other experts in their respective fields. As an incentive for participants to attend these workshops, continuing education credits were provided to real estate agents, American Institute of Certified Planners, engineers, landscape architects, and Certified Floodplain Managers. The Albemarle-Pamlico National Estuary Partnership provided funds for the Columbia real estate and technical workshops.

DCM contracted with UNC Coastal Studies Institute to record the technical living shoreline workshops in Beaufort and Columbia. These videos were distributed to the CTP contact list and will be used in future outreach efforts. Audiences who have yet to attend a workshop are encouraged to watch these recordings and use them as an educational resource to increase their knowledge of the use of living shorelines for erosion control. Recordings of living shoreline workshop presentations are available on the Reserve YouTube page at:

<https://www.youtube.com/playlist?list=PLGoCDUDTs3xXzC3BqywVKIx9KY4aSkIMZ>

Increased engagement of marine contractors is important for promoting the adoption of living shorelines by property owners, as they tend to be the first contacted by property owners interested in stabilizing their shoreline. This audience has been underrepresented at past outreach and training activities. DCM will edit existing workshop recordings to a 45-minute or less video for use at future

events designed specifically for marine contractors.

## 5. Informational Signage

*In the future, as new living shoreline demonstration sites are constructed (in conjunction with Wildlife Resources Commission (WRC) boat ramps, for example), informational signs should be placed nearby (Living Shoreline Strategy 2014).*

Four living shoreline informational signs were installed near three demonstration sites in Carteret County. Two sites on Pivers Island include the marsh sill on the west end of the island at the Duke University Marine Lab (DUML) and the living shoreline on the east end of the island at the National Oceanic and Atmospheric Administration (NOAA) Beaufort Lab. The other two signs discuss the Rachel Carson Reserve demonstration site and are installed at the on-site boardwalk and at the WRC's Lennoxville Road boat ramp in Beaufort.



*From L to R: DUML living shoreline sign, Rachel Carson Reserve living shoreline sign on boardwalk, NOAA Beaufort Lab living shoreline sign*

The signs define living shorelines and explain the benefits, such as erosion control and habitat enhancement. A summary of each demonstration site is included along with the year the living shoreline was constructed, partners involved in the project, and materials used. Language and graphics used to develop these signs will continue to be used for various communications products to ensure consistent messaging regarding living shorelines. These signs are designed to inform a wide range of stakeholders, including boaters, visitors to the Reserve, visitors to the NOAA Beaufort Lab or DUML, CTP workshop participants, and visiting scientists. Not only do these signs educate target audiences about different types of living shorelines and their benefits, they also recognize achievements made by research partners and community volunteers who dedicated time and energy to creating these living shorelines.

## 6. Leverage Grant Resources

*DCM and partners will draft living shoreline research proposals for funding from the Coastal Recreational Fishing Licenses (CRFL) Grant Program and will notify property owners about potential living shoreline funding assistance available through the Community Conservation Assistance Program (CCAP), the Albemarle-Pamlico National Estuary Partnership (APNEP), Southeast Aquatic Resources Partnership (SARP), or other sources (Living Shoreline Strategy 2014).*

The Community Conservation Assistance Program, or CCAP, is a voluntary, incentive-based program designed to improve water quality through the installation of various best management practices (BMPs) on urban, suburban and rural lands not directly involved with agriculture production. Streambank and shoreline protection is a category of BMP according to CCAP standards, thus allowing landowners the opportunity to apply for CCAP funding if they plan to create a living shoreline. Eligible landowners may include homeowners, businesses, schools, parks and publicly owned lands. Information about CCAP funding assistance is available on the DCM website and is also provided to living shoreline workshop participants. Updates regarding funding assistance will continue to be added to the DCM website as resources become available.

Each year DMF uses a portion of revenue from sales of N.C. Coastal Recreational Fishing Licenses (CRFL) to fund projects that are designed to manage, protect, restore, develop, cultivate and enhance the marine resources of the state. A priority need listed in the CRFL Request for Proposals under habitat restoration is: "Encourage public/private partnerships to create living shorelines in visible locations to promote the shoreline stabilization technique that provides fish habitat." Local or state government can apply for funding to accomplish this.

In 2013, CRFL grants were awarded to two projects proposed by partners at UNC-Chapel Hill's Institute of Marine Sciences (UNC IMS), one involving a survey to help target outreach regarding living shorelines, the other to produce educational materials and videos on fish use of habitat structure, such as that found in living shorelines. These include:

1. "Incorporating Stakeholder Knowledge of the Status and Value of Coastal Habitats" - \$30,365  
This is a multi-year grant to use a series of socioeconomic surveys of N.C. residents to collect ecologically relevant data on the perceived health of and threats to coastal habitats and fisheries.
2. "There's Something Fishy about Salt Marsh, Oyster Reef, and Seagrass Habitat" - \$50,121  
This is a multi-year grant to target habitat education strategies that are important to improve the public's understanding of the fish-habitat relationship and foster environmental stewardship.

In 2015, CRFL grants were awarded to two living shoreline-related research projects proposed by partners at UNC IMS. These include:

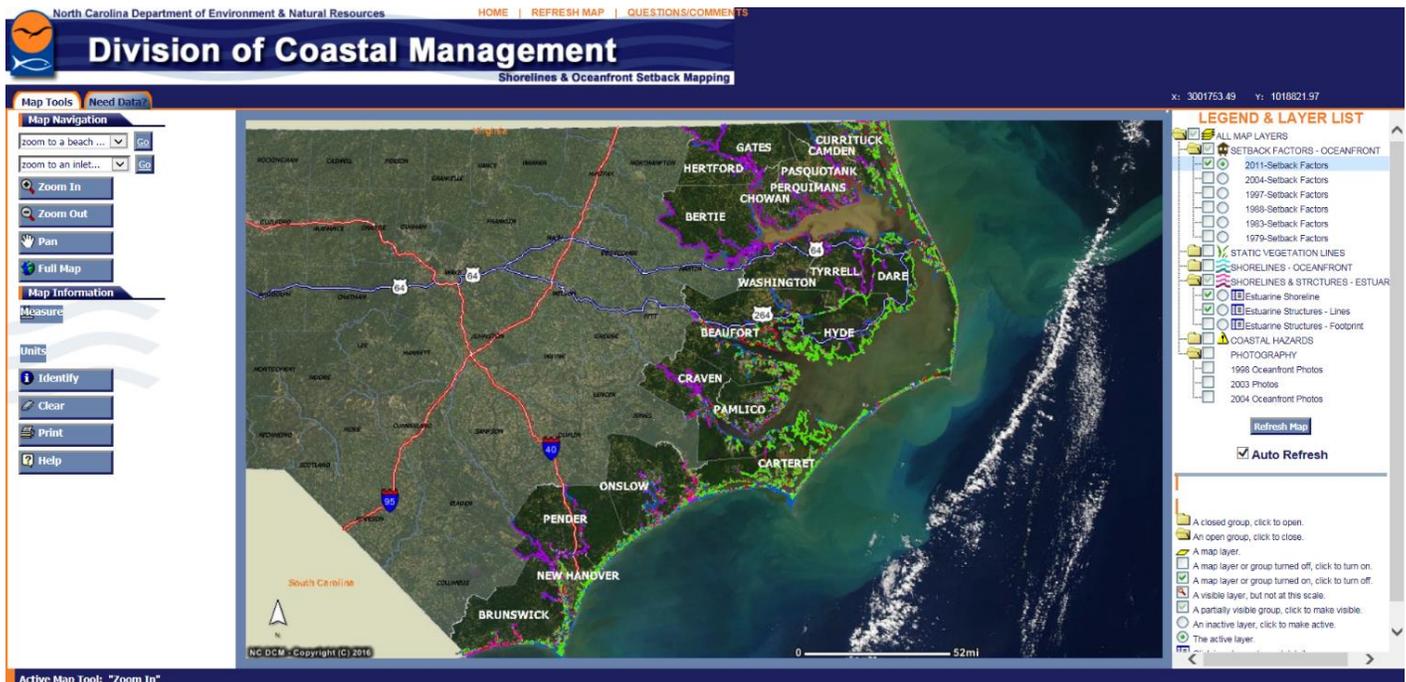
1. "Quantifying Fish Enhancement and Erosion Protection Provided by Marsh Sills: A Living Shoreline Alternative to Bulkheads and Revetments" - \$89,908  
This is a two-year grant to provide a comprehensive evaluation of the recreational fish habitat services and erosion protection provided by marsh sills in comparison to revetments, bulkheads, and naturally occurring marshes.
2. "Enhancing the Quality of Fish Habitat and Quantity of Oysters by Refining Reef-Restoration Techniques" - \$106,937  
This is a three-year grant to provide important guidelines for intertidal and subtidal reef restoration that will maximize the quality of the fish habitat.

# Progress on Long-Term Actions

## 1. Data Collection, GIS Analysis, and Product Development

DCM will continue analyzing its existing estuarine shoreline mapping inventory and will consider adding such data attributes as bank height, nearshore depth, fetch, and locations of buildings. DCM will also continue to improve online access to estuarine shoreline data and explore development of a geospatial model that matches appropriate shoreline stabilization methods with shoreline type (Living Shoreline Strategy 2014).

The estuarine shoreline mapping program (ESMP) analysis report was updated based on 2012 imagery to delineate the shoreline and structures. The imagery is high resolution 6-inch pixel width, true color orthophotographs. This imagery provided a snapshot of the entire coast within the same year and yielded the most accurate inventory of shoreline type and structures to date. Additional updates in the latest analysis include refinements to shoreline delineation methodology, polyline structure delineation, and polygon structure delineation. These refinements increased the accuracy and functionality of the estuarine shoreline mapping analysis for the 20 coastal counties. Full program reports and analyses are available at: <http://deq.nc.gov/about/divisions/coastal-management/coastal-management-estuarine-shorelines/stabilization/estuarine-shoreline-mapping-project>.



Estuarine shoreline mapped for the coast of North Carolina

## 2. Marsh Sills Research

*DCM and N.C. National Estuarine Research Reserve staff will pursue research projects and funding to evaluate storm impacts on marsh sills, the effects of marsh sills on adjacent property, the feasibility of using oyster shell as a construction material for marsh sills, the short and long-term costs of marsh sills compared to other alternatives, and the effectiveness of existing sheetpile sills (Living Shoreline Strategy 2014).*

### **a. Impact of bulkheads on marsh vegetation**

DCM, Reserve and NOAA staff completed a 5-year monitoring program in 2014 to assess the impact of bulkheads on marsh vegetation. The research team revisited sites that were initially monitored in 2009 as part of the Cooperative Institute for Coastal and Estuarine Environmental Technology-funded project entitled “Sustainable Estuarine Shoreline Stabilization: Research, Education, and Public Policy in North Carolina.” The same monitoring protocols were used to assess change in the amount of marsh vegetation and the elevation of sediment supporting marsh vegetation. The data are being analyzed to evaluate changes among sites from 2009 to 2014.

In the future, staff plan to use historical and current aerial imagery to evaluate decadal changes in the width of marshes associated with bulkheads, an important indicator of many marsh ecosystem services.

### **b. Effectiveness of living shorelines in high-energy environments**

In May 2015, the oyster sill living shoreline demonstration site at the Rachel Carson Reserve was replanted with 3,000 saltmarsh cordgrass plants with help from 17 volunteers. Reserve staff monitored survival of vegetation along permanent transects at weekly intervals for one month. The Reserve Research Coordinator is continuing to explore long-term monitoring options for the living shoreline demonstration site at the Rachel Carson Reserve.



*Living shoreline demonstration site at the Rachel Carson Reserve*



*NOAA researcher informs a volunteer about living shorelines during the planting at the living shoreline demonstration site at the Rachel Carson Reserve*

### **c. Resilience of sill vs. bulkhead to large storm events**

In addition to comparing fish use and ecosystem services, the 2015 CRFL-funded project “Quantifying Fish Enhancement and Erosion Protection Provided by Marsh Sills: A Living Shoreline Alternative to

Bulkheads and Revetments” also assessed the effectiveness and durability of sills during storm events. The study involves investigating the erosion protection provided by marsh sills as compared to bulkheads during large storm events, such as hurricanes. In 2015, Reserve staff worked with partners at UNC IMS to survey sills and bulkheads located throughout the state to obtain pre-storm baseline data. Shoreline condition surveys were taken at sills, bulkheads, and reference natural marshes in the northern, central, and southern regions of the coast. Surveys include vegetation and elevation data and visual observations noting landward erosion, structural damage without breach, breach, and collapse. The same protocols will be used following any major storm in the same year.

The results will provide an evaluation of the erosion protection provided by marsh sills in comparison to bulkheads, with natural, non-stabilized marshes serving as a control.

Results will be used to educate coastal residents of the resilience of different shoreline stabilization techniques to large storms.



UNC IMS and Reserve researchers use a laser level to measure marsh elevation

The pre-storm protocol will be repeated in 2016 and both years of pre-storm data will be analyzed to quantify normal inter-annual rates of erosion and change in abundance of marsh vegetation associated with bulkhead, sills, and natural marshes.

### 3. Certification Program for Contractors

*DCM will work to develop workshops, according to certain standards, that could provide engineering Continuing Education credits to eligible participants as well as certification or other official acknowledgement for attendees (Living Shoreline Strategy 2014).*

CTP living shoreline workshops offer continuing education credits to real estate agents, American Institute of Certified Planners, engineers, landscape architects, and Certified Floodplain Managers. In an effort to reach more contractors, DCM is considering a certification program for marine contractors and a draft protocol was developed based on feedback from the Living Shoreline Workshop Advisory Committee, feedback sessions at the spring 2015 living shoreline workshops, and analysis of other environmentally-based certification programs. DCM continues to investigate the utility of this program and research legal considerations.

Additional efforts to reach marine contractors include the development of a 45-minute video to use at future training events, as described previously in Short-Term Action 4.

## 4. Partner with Military and other Public Institutions

*DENR will partner with the military and other public institutions along the coast to increase the number of living shoreline demonstration sites (Living Shoreline Strategy 2014).*

No significant progress at this time.

## Conclusion

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Living shorelines are important for reducing coastal erosion, improving habitat for marine organisms, and protecting North Carolina's coastal communities from storms and flooding. DCM and DMF have accomplished the following activities as part of the Living Shoreline Strategy from February 2014 through December 2015:

- Streamlined the riprap sill General Permit;
- Improved communications strategies, outreach initiatives, and resources regarding estuarine shorelines and stabilization options;
- Trained 365 professionals through CTP living shoreline workshops;
- Installed educational signage and developed templates for future use;
- Continued commitment to provide financial incentives to property owners interested in installing living shorelines;
- Enhanced estuarine shoreline mapping inventory; and
- Implemented research projects designed to advance understanding of the success of estuarine shoreline stabilization techniques, impacts to ecosystems, and storm interactions.

Because of the benefits that living shorelines provide and to build on work accomplished to date, DCM and DMF will continue to promote living shorelines as viable methods for estuarine shoreline stabilization. Both agencies will work with federal, state, and academic partners to pursue living shoreline research projects and ensure project results are incorporated into living shoreline design, construction, permitting, and outreach in North Carolina. Short and long-term actions implemented by the state will be modified as new research and resources become available. Additionally, the 2016 Coastal Habitat Protection Plan (CHPP) identifies living shorelines as a priority issue and will be a focus for implementation in the next five years for DCM, DMF, and CHPP partners. CHPP implementation activities will complement work completed under the Living Shoreline Strategy.



**NC COASTAL RESOURCES COMMISSION (CRC)**

**July 12-13, 2016**

**NOAA/NCNERR Auditorium**

**Beaufort, NC**

**Present CRC Members**

Frank Gorham, Chair

Renee Cahoon, Vice-Chair

Neal Andrew, Second Vice-Chair

Larry Baldwin

Denise Gibbs

Greg Lewis

Phil Norris

Russell Rhodes

Jamin Simmons

John Snipes (absent 7/12/16)

**Present CRAC Members**

Spencer Rogers, Vice-Chair

Rudi Rudolph, Vice-Chair

John Brodman

Johnny Martin

Beth Midgett

Mike Moore

David Moye

Kris Noble

Bobby Outten

Todd Roessler

Dave Weaver

Lee Wynns

**Present from the Office of the Attorney General**

Mary Lucasse

**Present from the Department of Environmental Quality, Office of the General Counsel**

Christine A. Goebel

**CALL TO ORDER/ROLL CALL**

Frank Gorham called the meeting to order reminding the Commissioners of the need to state any conflicts due to Executive Order Number One and also 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 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 a potential conflict of interest, please state so when the roll is called.

Angela Willis called the roll. Gwen Baker, Marc Hairston, and Bill White were absent both days, John Snipes was absent July 12, 2016. No conflicts were reported. Based upon this roll call Chairman Gorham declared a quorum.

**CHAIRMAN'S COMMENTS**

Chairman Gorham acknowledged a letter the Commission received from Julie Dean Rosati, daughter of the late Dr. Robert Dean, thanking the Commission for their Resolution. Dr. Dean, along with Dr. Houston, provided the peer review on the NC Sea Level Rise Assessment provided

by the Science Panel. Chairman Gorham also advised the Commission that the Division had recently received a couple of third party hearing requests on which he may have a potential conflict. The Chairman will confer with CRC counsel to determine if the Vice-Chair should handle these requests. The Chairman also advised the Commission that at each meeting going forward a regional representative would be responsible for one hour of subject matter at the meeting in their respective region. Renee Cahoon will coordinate the north region, Greg Lewis will coordinate the central region, and Neal Andrew will coordinate the southern region.

### **Variance Procedure Overview**

Mary Lucasse, CRC Counsel, stated the Legislature has given the Commission the right to vary its regulations to deal with special situations as long as the requested variance is consistent with the spirit, purpose and intent of the rules. When a request for a variance is made, the CRC serves as the judge to decide whether to grant the request. Just as judges in a courthouse are not allowed to talk to an individual litigant outside the presence of the opposing party, the members of the CRC are also prohibited from discussing a variance request with individual parties. A variance petition is a quasi-judicial matter. The CRC must base its decision on the packet of information provided with the petition. If additional information is required, it can be requested through CRC counsel. The authority to issue variances is found in the Statute and the CRC rules as are the four variance factors. The legislature has said that the petitioner has the burden to show each of the four factors before a variance may be granted. The motions made by the CRC are based on the statutory requirements. Motions should be crafted to following the statutory requirements; for example, "I move that the CRC find that petitioner has or has not shown that unnecessary hardships will result from strict application of the rules, standards or orders"; "has or has not shown that hardships result from conditions peculiar to the property"; "has or has not shown that hardship results from actions taken by the petitioner"; and, petitioner "has or has not shown that the variance request will be consistent with the spirit, purpose and intent of the Commission's rules; will secure the public safety and welfare, and will preserve substantial justice". Subchapter 15A NCAC 7J .0700 are the Commission's rules which explain the process for petitioning the Commission for a variance. The Chairman has the authority to waive the timeframe set by the rules based on good cause. The Commission does not take testimony during a variance request proceeding. This is an expedited process that allows the CRC to make a decision on stipulated facts. The parties are required to agree to the facts. If the CRC needs more information to make a decision, it may send the request back to the parties for additional stipulated facts. If the parties cannot agree on additional facts, then the request is sent for a contested case hearing process in the Office of Administrative Hearings. That statute also requires the DCM staff to provide a written recommendation to the Commission. The Commission can delegate review of the variance request to a member or a committee however, this has never been done by the CRC. The parties are allowed oral argument at the meeting in which the variance request is heard. The rules also require that the final decision be made no later than the next CRC meeting after the petition is considered. The CRC must consider what are "unnecessary hardships" when considering a variance request. Under the Williams case, the Court of Appeals has given us some guidance and the most important question to ask is whether the petitioner can make reasonable and significant use of the property if the variance request is not granted. There is no requirement that a variance request be granted to allow the owner the use they want as long as there is reasonable, significant use of the property. Financial impact alone is not enough to establish an unnecessary hardship. The CRC is required to basis its decision on the property in question and not the owner. After the CRC makes its decision, CRC counsel drafts a final order and the written final agency decision must be sent out within 30 days following the date the decision is made. If a petitioner's request for a variance is denied by the CRC, then they have 30 days to appeal after receiving the decision.

## VARIANCES

### **Engel (CRC VR 16-01), Oak Island, Development Seaward of Vegetation Line Tara MacPherson, Christine Goebel, Esq., and Gary Lawrence**

Tara MacPherson gave an overview of the site. Christine Goebel, DEQ Assistant General Counsel, represented staff and stated petitioners Mark and Kellyanne Engel own an oceanfront lot on the west end of the Town of Oak Island. Petitioners are represented by Gary Lawrence who is present. The property is located within the Commission's Ocean Hazard Area of Environmental Concern. Petitioners applied for a Minor Development permit to fill in a hole in their oceanfront deck which used to have a swimming pool in it until it was undermined and removed. The Local Permit Office denied the permit application as it was inconsistent with the applicable setback rules. Ms. Goebel reviewed the stipulated facts of the variance request and stated that staff and petitioners disagree on three of the four variance criteria which must be met in order to grant the variance. Petitioner and staff agree that any hardship is not a result of actions taken by the Petitioners. However, staff suggests that petitioners could address the safety concerns relating to the hole in the deck by removing the deck structure from the public trust beach waterward of the FLSNV and retaining the dune accessway. Petitioners could also construct up to 500 square feet of elevated decking to replace the use they now propose while meeting the rules and not siting development inappropriately where it is more at risk from long-term erosion and storm events.

Gary Lawrence, counsel for petitioner, reviewed the stipulated facts in which petitioner contends supports the granting of the variance request. Mr. Lawrence stated that if the Commission denied the variance petition, petitioner would be required to leave the deck with a large hole in the center of it which is a safety and liability concern.

**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 an unnecessary hardship. Larry Baldwin seconded the motion. The motion passed with eight votes in favor (Rhodes, Norris, Baldwin, Andrew, Gorham, Lewis, Gibbs, Simmons) and one opposed (Cahoon).**

**Neal Andrew made a motion that petitioner has shown that hardships result from conditions peculiar to the petitioner's property. Larry Baldwin seconded the motion. The motion passed with seven votes in favor (Rhodes, Norris, Baldwin, Andrew, Gorham, Gibbs, Simmons) and two opposed (Cahoon, Lewis).**

**Neal Andrew made a motion that petitioner has shown that hardships do not result from actions taken by the petitioner. Larry Baldwin seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**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 will preserve substantial justice. The variance will be conditioned upon petitioner finishing the work within sixty days of the issuance of the permit. Larry Baldwin seconded the motion. The motion passed with seven votes in favor (Rhodes, Norris, Baldwin, Andrew, Gorham, Gibbs, Simmons) and two opposed (Cahoon, Lewis).**

This variance was granted with conditions.

**Davenport (CRC VR 16-02), Oak Island, Development Seaward of Vegetation Line  
Tara MacPherson, Christine Goebel, Esq., and Merrie Jo Alcock, Esq.**

Tara MacPherson gave an overview of the site. Christine Goebel, DEQ Assistant General Counsel, represented staff and stated Merrie Jo Alcock is present and will represent petitioners. Petitioner owns a lot on the west end of the Town of Oak Island. The property is located within the Commission's Ocean Hazard Area of Environmental Concern. The existing 3,000 square foot home was destroyed by fire in October 2015. Petitioner filed for a CAMA Minor Permit in February 2016 in order to reconstruct a home of the same size and in the same location as the home lost in the fire. The Town of Oak Island's LPO denied petitioners permit application as it was inconsistent with the applicable setback rules since the proposed development would be almost entirely waterward of the current vegetation line. Ms. Goebel reviewed the stipulated facts for this variance request and stated staff and petitioners disagree on three of the four variance criteria which must be met in order to grant the variance request. Staff and petitioners agree that any hardships did not result from actions taken by the petitioner.

Merrie Jo Alcock, counsel for petitioner, reviewed the stipulated facts which petitioner contends supports the granting of this variance request. Petitioner is only requesting to rebuild what was there before the fire destroyed the residence. Under the current rules no residential structure of any size would be permitted. Additionally, petitioner has made a significant investment to build a dune, push sand over and behind the dune and has planted vegetation.

**Renee Cahoon made a motion to support petitioner's position that strict application of the applicable development rules, standards or order issued by the Commission cause the petitioner an unnecessary hardship. Phil Norris seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**Renee Cahoon made a motion to support petitioner's position that hardships result from conditions peculiar to petitioner's property. Jamin Simmons seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**Renee Cahoon made a motion to support petitioner's position that hardships do not result from actions taken by petitioner. Russell Rhodes seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**Renee Cahoon made a motion to support petitioner's position that the variance request will be consistent with the spirit, purpose and intent of the Commission's rules, standards or orders; will secure the public safety and welfare; and preserve substantial justice. A condition should be placed on this variance request that the permit should be issued within 90 days of receiving the Commission's final order. Russell Rhodes seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

This variance request was granted with conditions.

**Wade (CRC VR 16-03), Sneads Ferry, 30' Buffer**  
**Tara MacPherson, Christine Goebel, Esq. and Sidney Wade (pro se)**

Tara MacPherson gave an overview of the site. Christine Goebel, DEQ Assistant General Counsel, represented staff and stated petitioner Sidney Wade is present and will represent himself in this variance request. Petitioner owns property in Sneads Ferry which is adjacent to an unnamed creek which is part of the New River. The property is within the Coastal Shorelines AEC. The first 30 feet landward from normal high water is subject to the Commission's 30-foot buffer rule which limits impervious surfaces and development within the buffer. In September 2015, petitioner applied for a CAMA Minor development permit to construct a larger sunroom on the waterward side of his home, where a smaller porch currently exists. In October 2015, the Onslow County LPO denied petitioner's permit application as a portion of the proposed and expanded development extended into the 30-foot buffer contrary to 15A NCAC 7H .0209. Ms. Goebel reviewed the stipulated facts of this variance request and stated that staff and petitioners disagree on all four statutory criteria which must be met in order to grant the variance.

Petitioner Sidney Wade stated a shed has been removed on the property which was about the same size as the proposed addition to the sunroom. Petitioner agreed to construct an engineered stormwater system consistent with the Commission's rules to control runoff.

**Renee Cahoon made a motion to support petitioner's position that strict application of the applicable development rules, standards or orders issued by the Commission will cause the petitioner an unnecessary hardship. Neal Andrew seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**Renee Cahoon made a motion to support petitioner's position that hardships result from conditions peculiar to petitioner's property. Russell Rhodes seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**Renee Cahoon made a motion to support petitioner's position that hardships do not result from actions taken by the petitioner. Neal Andrew seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**Renee Cahoon made a motion to support petitioner's position 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. Phil Norris seconded the motion. The variance request is conditioned on petitioner installing a stormwater management plan as agreed to in Stipulated Fact #14. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

This variance request was granted with conditions.

**Picha (CRC VR 16-04), Ocean Isle Beach, Sandbags**  
**Sean Farrell, Christine Goebel, Esq., and I. Clark Wright, Esq.**

Sean Farrell gave an overview of the site. Christine Goebel, DEQ Assistant General Counsel, represented staff and stated Clark Wright is present and will represent petitioners. Petitioners own the westernmost lot on Ocean Isle Beach located at 149 Ocean Isle West Boulevard, adjacent to

Tubbs Inlet. In 2007, petitioner sought and was granted three CAMA General Permits authorizing placement of sandbags along the oceanfront and inlet-front shorelines of the property. These sandbags were authorized to remain for up to two years. In 2009, petitioner got another CAMA General permit authorizing additional sandbags for five years on the inlet and rear side of the property. All the permits authorized sandbag structures with standard dimensions. In April 2016, petitioner applied for a CAMA Major permit to add additional sandbags to the existing but expired sandbags in order to increase the size of the structures beyond the Commission's authorized size limits. DCM denied petitioner's Major permit application as the proposed sandbag structure would exceed the maximum dimensions for sandbag structures found in 7H .0308(a)(2)(K), the bags had already exceeded the sandbag time limits found in 7H .0308(a)(2)(F) and (G), and the request is inconsistent with 7H .0308(a)(1)(A) which states that erosion response activities shall be consistent with the general policy statements of 7M .0200. Petitioner seeks a variance from these regulations in order to increase the size of the existing, expired sandbag structure to a maximum of 45' base width, 53' overall width, and an elevation of 12' NGVD and also requests that the sandbags remain for eight additional years until 2024. Ms. Goebel reviewed the stipulated facts of the variance request and stated that staff agrees with petitioners that the time limit is an unnecessary hardship, however staff disagrees that strict application of the applicable development standards addressing the size limitation for sandbags will cause petitioner an unnecessary hardship. The applicant has room landward of the existing sandbags to place additional bags if necessary to protect the property from shoreline erosion due to wave energy. Staff's position is that adding additional bags oceanward of the existing sandbags to prevent undercutting of the sandbag structure by the migration of Tubbs Inlet channel is not a proper inlet management strategy. Staff disagrees with petitioner on the second criteria as the erosion present at this site is typical of inlets and the adjacent oceanfront shorelines. While staff agrees that petitioner has done nothing to change the rate that the inlet channel has moved toward petitioner's property, staff are not aware of any significant steps the petitioner or the Town has taken to address the erosion problem on site since the first sandbags were installed eight years ago. Only recently has the Town begun the permit application process for an island-wide plan and staff agrees granting a variance for eight additional years would protect public safety and welfare, would be within the spirit, purpose and intent of the rules and would preserve substantial justice. However, Staff disagrees with petitioner that the size proposed would be within the spirit, purpose and intent of the rules, would protect the public safety and welfare or preserve substantial justice. Staff is very concerned that the proposed larger sandbag alignment will be undercut and slump into the channel, creating a very tall wall of sandbags. The proposal appears to create a hardened structure wall, which is not the intent of the Commission's sandbag rules. Staff is further concerned that the larger sandbag structure will have impacts on navigation if additional sandbags are allowed to slump into the channel. Finally, staff recommends the Commission deny this variance on the size issue as it is not within the spirit, purpose and intent of 7M .0202(f).

Clark Wright, counsel for petitioner, reviewed the stipulated facts which petitioner contends supports the granting of the variance request. Mr. Wright stated the petitioner's experts have expressed their opinion that the existing revetment will soon become ineffective to protect the home from the advancing inlet channel. The petitioner's experts' opinion is that an enlarged sandbag revetment is the only option to pursue for protection of the shoreline.

**Renee Cahoon moved that the Commission find Petitioner had failed to show that application of applicable development rules, standards, or orders issued by the Commission will cause unnecessary hardships. Greg Lewis seconded the motion. The motion failed with two votes in favor (Cahoon, Lewis) and seven opposed (Rhodes, Norris, Baldwin, Andrew, Gorham, Gibbs, Simmons).**

**Neal Andrew made a motion that petitioner has shown that strict application of the applicable development rules, standards, or orders issued by the Commission will cause the petitioner an unnecessary hardship. Larry Baldwin seconded the motion. The motion passed with seven votes in favor (Rhodes, Norris, Baldwin, Andrew, Gorham, Gibbs, Simmons) and two opposed (Cahoon, Lewis).**

**Neal Andrew made a motion that petitioner has shown that hardships result from conditions peculiar to petitioner's property. Phil Norris seconded the motion. The motion passed with eight votes in favor (Rhodes, Norris, Baldwin, Andrew, Gorham, Lewis, Gibbs, Simmons) and one opposed (Cahoon).**

**Neal Andrew made a motion that petitioner has shown that hardships do not result from actions taken by the petitioner. Russell Rhodes seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**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 will preserve substantial justice. As long as the variance includes the condition that Petitioner will be responsible for the removal of the sandbags and any associated materials if failure occurs, bags fall out of alignment, or should they fall within the navigable waters and that Petitioner will make efforts to move toward a long-term solution to address the erosion on this site. Larry Baldwin seconded the motion. This motion passed with eight votes in favor (Rhodes, Norris, Baldwin, Andrew, Gorham, Lewis, Gibbs, Simmons) and one opposed (Cahoon).**

This variance request was approved with conditions.

## **COASTAL RESERVE**

### **15A NCAC 70 NC Coastal Reserve – Legislative Periodic Review of Existing Rules (CRC 16-27)**

#### **Rebecca Ellin**

Rebecca Ellin reminded the Commission that the Coastal Reserve rules are Departmental rules and that CAMA instructs the Department to work with Coastal Resources Commission in its administration of the Reserve program. The Division is requesting the Commission's support of staff's initial draft agency determinations for 15A NCAC 070 to inform our recommendations to the Department. In 2013, the General Assembly added a section to the APA requiring that agencies adopt a ten-year periodic review of their rules. If this review is not undertaken, the rules will expire. The Coastal Reserve rules are scheduled to be reviewed by the Rules Review Commission in June 2017. Staff classified each rule and then sought input from the Reserve's ten local advisory committees on the initial draft agency determinations. These initial draft determinations will be submitted to the Department and then published for a 60-day comment period. In May 2017, Staff will compile a report for submittal to the Rules Review Commission that responds to any comments received. The RRC can agree or disagree with the agency classification of the rules. A final assessment is then sent to the Joint Legislative Administrative Procedure Oversight Committee for review. The final determination on an agency's rules becomes effective when the Oversight Committee reviews the report or on the 61<sup>st</sup> day after having received the report from the RRC. Rules that are classified as necessary with substantive public interest must be re-adopted by the Department as if they are new rules. If rules are not re-adopted, they will be removed from the Administrative Code. Rules designated as necessary without substantive public interest will remain in the Administrative Code. Rules designated as unnecessary will expire. Any proposed

amendments to rule language received during the comment period will be considered during the rule re-adoption process.

**Neal Andrew made a motion to approve the initial agency classifications for the Legislative Periodic Review of Existing Rules Report. Phil Norris seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

### **ACTION ITEMS**

#### **Approve Fiscal Analysis 15A NCAC 7H .0306 Grandfathering Provisions for Multi-Family and Commercial Oceanfront Structures (CRC 16-28)**

##### **Tancred Miller**

Tancred Miller stated the draft rule language was approved by the Commission at the February 2016 meeting to grandfather certain multi-family, residential and commercial structures along the oceanfront. For the fiscal analysis staff reviewed the available data to determine which structures would be impacted by the proposed amendment. To make these determinations, staff was required to make several assumptions about the potential impacts of this amendment. Staff eventually concluded that since this proposed amendment will allow voluntary action, but does not require an affected party to take any action, the proposed amendment will not have any direct fiscal impact. The proposed amendment will allow high-value oceanfront structures to be rebuilt, an action that is currently prohibited. This may facilitate more real estate transactions. As a result, staff concludes that the amendment may potentially have an indirect and significant economic impact. Staff determined that indirect economic impacts may be felt by federal, state and local governments, private property owners, and private sector businesses such as the real estate, finance, and insurance industries. The Department has certified Staff's fiscal analysis and the OSBM has reviewed and approved the fiscal analysis. If the CRC approves the fiscal analysis, a public hearing on the rule amendment and fiscal analysis will be held at the CRC's September 2016 meeting.

**Greg Lewis made a motion to approve the fiscal analysis for 15A NCAC 7H .0306 for public hearing. Larry Baldwin seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

#### **Adopt 15A NCAC 7H .1801, .1802, .1804, .1805 Beach Bulldozing General Permit and 15A NCAC 7H .2505 Emergency General Permit**

##### **Ken Richardson**

Ken Richardson stated the US Army Corps of Engineers' General Permit allows emergency construction of a primary dune and any associated excavation below mean high water. In order to minimize impacts to the beach and adjacent properties, beach bulldozing under the CAMA General Permit have been limited to above mean high water. The proposed amendments will align the CAMA General Permit and Corps' General Permit and make the dates consistent for agency coordination. No public comments have been received on these proposed amendments.

**Greg Lewis made a motion to adopt amendments to 15A NCAC 7H .1801, .1802, .1804, .1805 Beach Bulldozing General Permit and 15A NCAC 7H .2505 Emergency General Permit. Renee Cahoon seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**Public Comments and Adoption of 15A NCAC 7H .2701, .2704, .2705 Marsh Sill General Permit (CRC 16-31) was removed from the agenda. No action taken.**

**Adopt 15A NCAC 7H .0205 Coastal Wetlands**

**Daniel Govoni**

Daniel Govoni stated this rule describes coastal wetlands, significance, management objectives, and establishes use standards. The proposed amendment will codify how regular and occasional flooding of marsh is determined and ensure consistent wetland delineations in the field. No comments have been received on the proposed amendments.

**Phil Norris made a motion to adopt 15A NCAC 7H .0205. Renee Cahoon seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

**Greg Lewis made a motion that the CRC go into closed session pursuant to N.C.G.S. § 143-318.11(a)(3) to consult with its attorney regarding filing an amicus brief in *Nies v. Emerald Isle* (409PA15). Denise Gibbs seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Gibbs, Simmons).**

During the closed session, Attorney Lucasse briefed the Commission on the issues raised by *Nies v. Emerald Isle* and the procedure for filing an amicus brief in the North Carolina Supreme Court. Following discussion, the Commission unanimously agreed to return to open session and recessed until the following day, July 13, 2016.

**MINUTES**

**Renee Cahoon made a motion to approve the minutes of the May 2016 Coastal Resources Commission. Neal Andrew seconded the motion. The motion passed unanimously (Gorham, Andrew, Baldwin, Cahoon, Gibbs, Lewis, Norris, Rhodes, Simmons, Snipes).**

**EXECUTIVE SECRETARY'S REPORT**

Braxton Davis, DCM Director, gave the following report:

I'd like to start with a status report on the work done to date developing a six-month plan and process for a review of the operations, programs, procedures, and management frameworks of both DCM and DMF that I spoke about at our May meeting. In an effort to identify opportunities for improvements and efficiencies across both divisions, I've been meeting with staff of both agencies according to program areas including Budget, Facilities, IT, Compliance & Enforcement, Habitat, Marine Aquaculture and Outreach & Education. Each subgroup will develop clear and objective recommendations regarding overlap in agency missions and goals, authorities, possible alignment areas, new or expanded collaborations, cost/benefits of realigning or combining, impacts on customer service and possible necessary statutory, regulatory or administrative changes. I expect to receive draft information from the subgroups by the end of August and will be making my recommendations to the Department by the end of October or early November. I'd like to reiterate my sincere appreciation for the support I've received from members of both commissions, staff at both agencies, and the various interest groups that I've begun to meet with over the past two months.

## **Legislative Update**

The NC General Assembly short session ended on July 1<sup>st</sup>. While there were several bills being considered that would have impacted DCM; neither the Regulatory Reform Act nor Amend Environmental Laws was passed. Although the budget passed by the legislature has not altered the Division's budget, the modification of the Appropriations Act of 2015 did contain a few provisions relevant to DCM. Section 14.19 SHALLOW DRAFT FUND SPONSORED COASTAL MANAGEMENT POSITION G.S. 143-215.73F(b) is amended by adding a new subdivision to read: "(3) For the compensation of a beach and inlet management project manager with the Division of Coastal Management for the purpose of overseeing all activities related to beach and inlet management in the State."

BEACH NOURISHMENT STUDIES SECTION 14.22.(a) The Division of Coastal Management and the Department of Environmental Quality shall study and provide an executive summary of readily available data and existing studies on the physical and economic, storm mitigation, and public safety benefits of out-of-state coastal storm damage reduction and beach nourishment projects. Specific items benefitted by coastal storm damage reduction shall include, at a minimum, public infrastructure, public property, private property, small businesses, and tourism.

These two Sections are part of the larger Beach Nourishment Studies provision that directs the county tax offices in the coastal area to identify all privately and publicly owned property island-wide in the county and determine whether the mailing/ownership address on the tax record of such property is (i) in the county where such property is located, (ii) in a noncoastal county in North Carolina, or (iii) outside the State of North Carolina. Each County Tax Office shall send an electronic list of the property addresses and matched mailing/ownership addresses suitable for electronic sorting. It also directs the Department of Commerce to provide an executive summary of readily available economic data related to the 20 coastal counties for the purpose of quantifying the contribution of the coastal economy to the economy of the State as a whole, considering, at a minimum, the benefits of travel and tourism, small businesses, job creation and opportunity, and tax revenues, including property, sales, and income taxes. All these studies are due to the Department of Environmental Quality and the Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources by November 1, 2016 and are to be made appendices to the updated Beach and Inlet Management Plan. Departmental procedures will require DCM to complete its portion of the studies by October 1, 2016.

## **Regulatory**

Permit activity is slightly higher than last year, and we're seeing an uptick in site visits, complaints, and compliance/enforcement actions. Notable permit actions since your last meeting include the issuance of several emergency permits. An emergency permit was issued to the NCDOT Ferry Division authorizing the excavation of a heavily shoaled area within the Hatteras Inlet complex that is necessary for the safe usage of the inlet by commercial and recreational boat traffic. Two separate emergency permits were issued to the N.C. State Port Authority. The first emergency permit was for excavation of a shoaled portion of the turning basin at the State Port facility in Wilmington. The second emergency permit authorized excavation of a shoaled area of the Wilmington Harbor Shipping Channel approximately 17 miles downriver from the Wilmington Port facility. Both of these emergency permits were necessary to allow for the potential usage of the Wilmington port facility by larger cargo ships resulting from the recent expansion of the Panama Canal. The Division also issued a permit to the NCDOT for the replacement of the Topsail Island Bridge at Surf City. Construction on this bridge is expected to begin within the next few months.

### **Federal Consistency**

The federal Coastal Zone Management Act requires state Coastal Programs to formally incorporate changes made to state laws and rules in order for them to be used in state reviews of federal permits and activities (federal consistency process). In 2010, the Commission added “wind energy facilities” to the other types of offshore energy activities that are regulated under your administrative rules, changes are included in 7H.0106, 7H.0208, 7H.0309, and 7M .0400. When approved by the National Oceanic and Atmospheric Administration, these rules will be incorporated into our Program and used in future Federal Consistency determinations. This “Routine Program Change” requires a public notice and located today in the back is the public notice that explains how to view and comment on this procedure. Comments should be sent to NOAA’s Office of Coastal Management by August 12, 2016. The USACE has notified us that they plan on reissuing their Nationwide Permits and we should be expecting a Federal Consistency request at the beginning of 2017. This process is conducted every 5 years by the USACE and this year there is a proposal to create a NWP for Living Shorelines. Staff will soon be meeting with USACE regarding this issue and to ensure consistency with these federal permits. The USACE has prepared the Morehead City Harbor, Final Integrated Dredged Material Management Plan (DMMP), and has sent this to us for Federal Consistency Determination. The USACE proposes to implement the final 20-year DMMP, for maintenance dredging of existing Federal navigation channels in Morehead City Harbor. The Federal Consistency review process will conclude in August. The public comment period is open and will close July 16.

### **Coastal Reserves**

The Reserve is offering a number of summer programs including field trips to the Rachel Carson, Masonboro Island, and Bird Island Reserves and summer camps for children. One summer camp is underway this week in the classroom just down the hall. This program is delivered by Reserve staff in partnership with the N.C. Maritime Museum. Feel free to take a peek in the classroom to learn more about this aspect of the Division’s activities. More details about the Reserve’s summer programs are located on the Reserve’s event calendar.

### **Policy & Planning**

We are pleased to announce that in response to our solicitation for Local Planning & Management Grant Program projects, the Division has awarded five local governments \$15,000 each in federal grant funds. Chowan County/Town of Edenton, Ocean Isle Beach, Shallotte and Wrightsville Beach will receive funding to update their land use plans. Morehead City will develop a flood mitigation plan to enhance its CRS program. The Division received 10 applications from local governments requesting \$150,000. The intent of the grant program is to assist local governments in developing and implementing land use plans and management strategies for their coastal resources that are consistent with the state guidelines.

In February 2014, DCM and DMF published a Living Shorelines Strategy to identify short and long-term actions to advance the use of living shorelines in NC. Staff recently drafted an Accomplishments Report to supplement the original Strategy - it includes information about progress made on actions identified in the Strategy from 2014 - 2015. Accomplishments include:

- Streamlining the riprap / marsh sill General Permit;
- Improving communications strategies, outreach initiatives, and resources;
- Training of 365 professionals through CTP living shoreline workshops;
- Installing educational signage and developing templates for future use;
- Enhancing our estuarine shoreline mapping and inventory efforts; and

- Implementing research projects designed to advance understanding of the success of different estuarine shoreline stabilization techniques.

The Accomplishments report was previewed at the CRAC meeting yesterday and will be posted on the DCM website in the near future.

### **Staffing News**

Holley Snider, a field representative working out of the Wilmington Regional Office, has recently taken a new position with the Division of Energy, Mineral and Land Resources. Emily Woodward, the Reserve's Communications Specialist, left the Division in late June to take a job as the Public Relations Coordinator with UGA Marine Extension and Georgia Sea Grant in Savannah, GA. Elise Gilchrist has been hired to fill this vacant position and she will begin work with the Division in mid-August. We wish Emily and Holley the best of luck in their future endeavors. Also, I have some sad news to report. Former DCM Director Roger Schechter passed away on June 5, 2016. Roger, who was the longest serving DCM Director, occupied this position from 1990 and 1998, after which he went to work for NOAA. He later became an environmental consultant, working with staff on numerous projects in coastal North Carolina. The Division would like to offer our condolences to Roger's family and friends.

Finally, I would like to acknowledge Ray Sturza's service to the CRAC and the North Carolina Coastal Program. Ray has served on the Council since 1984 and has announced his resignation. He has represented Dare County and has been an active advocate for local government involvement in coastal issues. The Division appreciates his service and dedication over the past 32 years.

### **CRAC REPORT**

Spencer Rogers stated the CRAC continued its discussion of sandbags. In the previous meeting, the CRAC made a recommendation for the CRC to consider changing the time limit to eight years. After the CRAC made that recommendation, the CRC moved in the direction of removing the one time per structure provision. During our discussion, the CRAC's general feeling was that if the one time per structure provision is removed then it would allow replacement every eight years which would essentially remove all the time limits for as long as a structure remains threatened. The CRAC has concerns that this will remove the incentive for beach nourishment, terminal groins, or other mitigation options at the local level as an alternative to sandbags. These incentives should be maintained. One way to do that is to retain the one time per structure provision. The CRAC also looked at a brief presentation on the erosion impacts of sea level rise on the coastal inlets and were given an update on the marsh sill regulation process.

### **CRC SCIENCE PANEL**

#### **CRC Science Panel – Inlet Hazard Areas Scope of Work (CRC 16-29)**

##### **Ken Richardson**

Ken Richardson stated in 2012, the NC General Assembly directed the Commission to study the feasibility of creating a new Area of Environmental Concern for lands adjacent to the mouth of the Cape Fear River. During the course of this study, the Commission found that while the Cape Fear River inlet did present a unique set of challenges, other inlets may have similar issues. The Commission decided to undertake a comprehensive review of inlet-related issues with the expectation of developing additional management tools that will allow the Commission to more proactively address the issues confronting local governments in these dynamic areas. The Commission reviewed shoreline management strategies, inlet dynamics, erosion rates and setback factors, as well as the CRC's development standards adjacent to inlets. The Commission sought input on inlet management from a wide array of stakeholders including sand managers, engineers,

dredging industry representatives, the Corps of Engineers, and those with an interest in the impacts associated with inlet management. Stakeholders provided the Commission with an overview of their concerns and ideas including in-water issues such as dredging, erosion control alternatives, and development standards on adjacent lands. The Commission utilized the information gathered from the stakeholders and from public comments to develop a list of priorities. The Science Panel was asked to develop a methodology for calculating shoreline change rates at inlets. However, during this period of time, the focus for the Panel was on updating the 2015 sea level rise assessment report and the Commission did not issue a formal scope of work requesting the Panel develop a methodology for calculating shoreline change rates at inlets. With the sea level rise assessment update completed, staff is asking the Commission to consider approving a scope of work for the Science Panel to finalize their inlet shoreline change rate methodology. The Science Panel has considered inlet shoreline change rates throughout their inlet studies for the Commission. The Panel most recently utilized a linear regression method that incorporates multiple shorelines, versus the end-point methodology currently used to calculate rates on the oceanfront which only uses two shorelines (early and current). To date, inlet shoreline change rates have not been used for the purpose of determining construction setbacks at inlets. The Science Panel should also be directed to re-evaluate points along the oceanfront shoreline where inlet processes no longer influence shoreline position. When the Science Panel first started working on updating Inlet Hazard Area 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. However, data collected after 2005 have not been included in this analysis, thus establishing a need to utilize newer data sets. Upon completion of this project, the results would be presented to the CRC. The expectation is that the inlet shoreline change rate calculation methodology and study results will be presented at a late spring or early summer Commission meeting in 2017. At that time, alternatives for updating and improving inlet management strategies could also be pursued by the Commission. As recommended in the 2014 Inlet Management Study, staff proposes to work with the Science Panel to utilize newer data and the Panel's methodology to re-analyze inlet shoreline change rates, and to re-evaluate the transition point along the oceanfront shoreline where inlet related processes no longer have a dominant effect on the shoreline.

**Jamin Simmons made a motion to approve a Scope of Work relating to an Inlet Erosion Rate Calculation Methodology and send it to the Science Panel. Renee Cahoon seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Snipes, Snipes, Gibbs, Simmons).**

### **Groundwater Resources and Issues in Coastal NC: Challenges and Solutions**

#### **Dr. Richard K. Spruill, East Carolina University**

Dr. Richard Spruill stated aquifers are rock or sedimentary layers that have the ability to transmit usable quantities of waters. Most of the time the materials in the coastal plain are composed of sand grains of different sizes and occasionally the coastal area materials are made of limestone that can have larger cavities. For the longest period of time, drinking water in the coastal plain has come from the shallow part of the groundwater system. We have developed an ability to develop deeper and deeper wells. These deeper wells go through the clay layers to deeper aquifers. The beauty of these deeper aquifers is that water is pressurized. The water quality is better and the water rises closer to the surface so it costs less money to bring it to the surface. In the coastal plain we have aquifers stacked one on top of the other. East of I-95 there is an eastward dipping and wedging of sand, silt and clay and occasional limestone. This area is composed of a series of aquifers. In 1961, we drilled a well at Cape Hatteras and it bottomed out at 11,000 feet and has the same kinds of rocks that you find in Raleigh and into the mountains. We have named the aquifers and the

confining clay layers different names depending on where you can see them. In Onslow County, the city of Jacksonville and County like to use the deeper cretaceous aquifers. The Castle Hayne aquifer system is utilized by Camp Lejeune. Onslow County has started developing wells in the Castle Hayne aquifer and the City of Jacksonville has as well. We are using a lot of different aquifers. As the population expands, we are using all of the small aquifers in a single location. The Castle Hayne has a thin aquifer above it called the Pungo River aquifer. The Pungo River aquifer is important because it has phosphorous in it. Phosphorous is one of the key ingredients in fertilizer. Years ago at the location of the PCS Phosphate mine, prior to any attempt to mine this area, a bunch of wells were drilled into the Castle Hayne aquifer. We discovered in a well at Belhaven a phosphate deposit that could be a great source of fertilizer. There is a cone of depression from dewatering the PCS Phosphate mine and it shows that the water level that was above sea level is now 157 feet below sea level and all the groundwater flows into this area from all directions because of the removal of up to 75 million gallons of water per day. This drew a lot of attention, especially from environmental groups, who were concerned that this could have an adverse impact on our groundwater system. While our attention was on the PCS mine and the impacts associated with it, Greenville, Kinston and Jacksonville were drilling more than 100 wells into the cretaceous aquifer because the water is exceptional. When we are taking out millions of gallons of water per day it creates a cone of depression for the cretaceous aquifer. No one was focused on this impact to the groundwater system. Starting in the 1990s we started to realize that if we continue to take water out of the groundwater system from the cretaceous aquifer without regulation then we would soon run out of water. We were able to convince a lot of people that we needed to regulate the cretaceous aquifer system because the water levels were declining. In Morehead City, if you look at the Castle Hayne aquifer and find a well that is drilled into it then you will see that the water levels from 1976 to 1996 then you will see the water level falls, then rises, then falls again. This is due to the tourists coming to the area then leaving then coming back. There are tremendous changes in demand for water in our coastal environment. If you were to go to Craven County or Onslow County and look at the Black Creek aquifer, a cretaceous aquifer, the water level from 1965 to 1995 declined at a rate of six feet per year. The State came in and said in addition to regulating the capacity use area we are going to regulate this part of the groundwater system. The Central Coastal Plains Capacity Use Area Act was passed. In the coastal counties the amount of groundwater that can be withdrawn from the cretaceous aquifer system is limited. In Greenville, we were taking about eight million gallons of water per day from the groundwater system. The rules said that the withdrawal rate of eight million gallons is not sustainable so the State will let Greenville withdraw eight million gallons per day for six years, but then you have to cut back 25 percent and then another 25 percent reduction in another six years. The State had an obligation written in the rule that said that they would evaluate during each of these phases to see if the water levels were recovering. When we look at some of the water levels through time, by the early 2000s the water levels had stopped declining and had started recovering. They started recovering because we started looking for alternative sources of water. Water levels have started to recover and there may not be a need for the additional 25 percent reduction. The biggest problem we would have from stopping our complete reliance on the cretaceous aquifers is we could experience the potential issue of overdevelopment of the Castle Hayne aquifer system in response. The biggest issue associated with this is salt water intrusion. On Bogue Banks, there are multiple wells attached to the Castle Hayne aquifer and it is their dominant source of water. More and more wells in our coastal areas run the risk of salt water intrusion. Reverse osmosis systems are used to eliminate the salt and discharge the byproduct into the estuaries and sounds. One of the things that we are doing is something called aquifer storage and recovery. When we find sources of water that we don't need seasonally and can produce water in the winter months then we could take that water and inject it underground and push the native water

out of the way and store the water underground. When the demand goes up then we can pump it back out.

## **NC Ports Authority**

### **Paul Cozza, Chief Executive Officer NC Ports Authority**

Paul Cozza stated the North Carolina Ports does not receive annual funding from the General Assembly. We are an independent organization with revenues coming from both Wilmington and Morehead City. The Authority uses a profit and loss statement just as private companies do. Last year we had the best earnings in the Authority's history and we are on track to be ahead again this year. On the container side of the business we had an eighteen percent increase in our container volume. Container business is only in Wilmington but we have general cargo in both locations. We are smaller in size and volume than ports to the north and south, but on a percentage basis we are the fastest growing container port on the east coast. We are competing with Virginia, South Carolina, and Georgia. We go around the state and talk with our customers about getting more service options. We want to increase our presence to facilitate growth for the state. We were recognized this past year as one of the top five ports in the United States in Expansion Solutions magazine which identifies economic development organizations which have shown exceptional progress and potential in the area of recruiting, retaining, and growing business. We work very closely with the Department of Transportation as well as Commerce as part of our economic development because we can help each other increase business in the state. We track container business from where they come from to where they go. Forty-three percent of Charleston's container business starts or stops in North Carolina. This means that a lot of our companies in North Carolina are using ports around us. We are looking at public-private partnerships. The turning basin project is something that is very important. The new Panama Canal is open and allows larger container ships. The international transportation community needs larger vessels and the turning basin in Wilmington will be able to accommodate them. This will allow us to better serve our cargo community. We were able to secure funding from the General Assembly for infrastructure investments at the ports. Part of those funds went into the turning basin project. We are replacing berth 8 to handle post Panamax container vessels and purchasing new post-Panamax container cranes. There is a study underway with the US Army Corps of Engineers to complete navigational improvements to the Cape Fear River channel, including deepening the Cape Fear River basin. Intermodal rail service is important as well. One part is getting the ships to the port then getting the cargo off, but it must get out of the terminal. A project that the state is looking at with CSX is a Central Carolina Connector. This is an intermodal hub in eastern North Carolina which will serve as the major transportation hub in the southeast. When we say intermodal that is moving material from truck to rail or rail to truck. This would be great for the state. We will have a much more efficient transportation network. This will encourage businesses to move closer to this hub and will create jobs. This will also give the NC Ports a direct rail line to Charlotte. There is already rail at both port facilities. Charlotte is a growth center which will enable more direct international options. Our transportation network impacts every region in North Carolina. An efficient and modern transportation system is and will be the key for future economic development. We are doing well but can get better. Annually 14 billion dollars of economic contribution comes to the state of North Carolina based on the ports. \$707 million of tax revenues are gained through the ports for the statewide economy. Over 76,000 jobs are provided directly or indirectly by the ports statewide. We spend a huge amount of time looking at how we move cargo from the port. We track the time it takes a trucker that gets to our facility to the time he leaves. We look at how quickly and efficiently we move cargo around. Congestion is an issue in our entire transportation network. We have an efficient system that is well maintained.

## **PUBLIC INPUT AND COMMENT**

No public comments were received.

## **CRC RULE DEVELOPMENT**

### **Proposed Amendments to Sandbag Rules (CRC 16-30)**

#### **Mike Lopazanski**

Mike Lopazanski reviewed the CRC's work on the sandbag rules and stated at the last meeting the CRC approved the draft amendments for public hearing, but also asked staff to come back with revisions to remove the provision allowing sandbags "once per property."

At the CRC's direction, Staff made the requested revisions to the draft amendments to the sandbag rules and some additional revisions required for consistency. The legislature previously directed the CRC to make amendments to the sandbag rules that incorporated several provisions. These provisions were to allow sandbags to be placed even if there isn't an imminently threatened structure on the property; to allow contiguous sandbag structures to extend from one property boundary to the other; to have the termination dates for all sandbag permits on the property to expire on the latest date of the last permit issued; and to allow the replacement, repair or modification of sandbags that were legally placed under the current or expired permit if it is being litigated by the owners of the property in court. All of these provisions were included in the current draft and clarification was provided on some of these amendments. For lots with no imminently threatened structures, language was added to require that the bags be placed no further oceanward than the landward most sandbag structure. For allowing contiguous sandbag structures from one property boundary to the other, language was deleted prohibiting sandbag structures extending no further than 20 feet past the structure. Finally, the CRC recommended adding additional language about litigation that specified in state, federal or administrative court. In addition, the CRC and CRAC have also been discussing the time limits, removal criteria, the requirement that sandbags be covered and vegetated, sandbags and beach nourishment projects, and the once per property provision. Currently, unless you are in an area that is pursuing a mitigative strategy then the structure can only be protected once by sandbags. The CRAC requested that the distinction be removed on the size of the structure as far as time limits are concerned and set a time limit for all structures to eight years. Amendments have been made to remove the vegetated requirement for sandbag structures to remain in place beyond their permitted time when covered by sand. Language was added that only require sandbags that are exposed above grade be removed at the expiration of the permit. Modification was made to the "no longer necessary" provisions that require the removal of sandbags that are exposed above grade upon completion of a beach nourishment or inlet relocation or stabilization project. The amendments delete the provision for properties located in communities with a planned beach nourishment or inlet relocation or stabilization project and clarifies that structures determined to be imminently threatened upon the expiration date of the permitted temporary erosion control structures may be permitted to remain in place for an additional eight years. The size limits were retained as the Commission determined at the last meeting that larger bags and geotextile tubes should be handled by the variance process. The current amendments also include deletion of the "onetime per structure limitation." It was noted that these amendments were discussed at the CRAC meeting and the CRAC recommended that the CRC not remove the one time per structure provision.

Following discussion of the draft language,

**Frank Gorham made a motion to approve the removal the one time per structure provision from the sandbag amendments. Jamin Simmons seconded the motion. The motion failed with four votes in favor (Rhodes, Gorham, Gibbs, Simmons) and six opposed (Norris, Baldwin, Andrew, Cahoon, Lewis, Snipes).**

**Larry Baldwin made a motion to approve amendments to the sandbag rules that incorporate the one time per structure provision, reinstate the definition of “actively pursuing” and include other small edits proposed by staff. Renee Cahoon seconded the motion. The motion passed with seven votes in favor (Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Snipes) and two opposed (Rhodes, Gibbs) (Simmons abstained).**

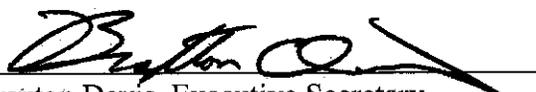
**OLD/NEW BUSINESS**

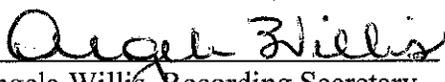
Chairman Gorham proposed four meeting dates for the Commission in 2017. One additional meeting date in July will be reserved for a conference call to address any variance requests received. The Commission agreed upon February 7-8, April 26-27, September 27-28, and November 7-8. July 11 will be held as a potential conference call meeting to hear variances. Chairman Gorham also reminded Commissioners to contact Angela Willis if they are unable to attend a meeting to ensure there is a quorum.

**John Snipes made a motion to approve the 2017 meeting scheduled. Renee Cahoon seconded the motion. The motion passed unanimously (Rhodes, Norris, Baldwin, Andrew, Cahoon, Gorham, Lewis, Snipes, Gibbs, Simmons).**

With no further business, the CRC adjourned.

Respectfully submitted,

  
Braxton Davis, Executive Secretary

  
Angela Willis, Recording Secretary



PAT MCCRORY  
*Governor*

DONALD R. VAN DER VAART  
*Secretary*

BRAXTON DAVIS  
*Director*

**CRC-16-35**

September 14, 2016

**MEMORANDUM**

**TO:** Coastal Resources Commission  
**FROM:** Roy Brownlow, DCM Compliance Coordinator  
**SUBJECT:** Division of Coastal Management Compliance Overview

As with any regulatory program, monitoring and compliance of permit conditions is an essential part of the State's coastal program. The Division of Coastal Management (DCM) continues to implement an efficient compliance and enforcement program within its regulatory section. Over the past four decades, the Division has taken the initiative to develop innovative enforcement methods to achieve compliance and enforce the terms and conditions of permitted development. Some of these methods include:

- Tiered enforcement for enforcement of Minor CAMA development violations;
- Aerial overflight program for shoreline monitoring, dredge and fill violations;
- An informal civil penalty assessment procedure;
- Implementation of a Compliance and Enforcement Coordinator position;
- Graduated civil penalties, where penalties are in proportion to the degree of harm to coastal resources;
- Implementation of four Field Specialists as a result of the Coastal Habitat Protection Plan.

The most recent change to the Division's compliance and enforcement program involved implementation of a Department-mandated Tiered Enforcement process for Major CAMA development violations. Under this process, there are three tiers of graduated enforcement actions dependent upon the severity and degree of the impact upon coastal resources:

- Tier 1 – Cease and desist, warning letter, no civil penalty;
- Tier 2 – Cease and desist, restoration of adversely impacted resources if applicable, civil penalty; and
- Tier 3 – Cease and desist, dredge and fill violations, repeat violators, continuing violations, willful and intentional violations.

The Division continues to have one of the highest compliance rates of permitted inspected facilities within the Department (97% of annual inspections reveal compliance with CRC rules and permit conditions). Although DCM has experienced a downward trend in formal enforcement actions since 2012, this trend is consistent with the number of permits issued and follows that of other state and federal regulatory natural resource agencies. Enforcement trends are closely associated with the number of permits issued as well as other external and internal factors. The trend in 2016 has been an increase over the previous four years of enforcement actions taken by state and federal resource agencies. This trend is typically consistent with recent economic and development activity.

The Division has effective compliance tools and fair but firm enforcement actions to ensure authorized development is consistent with the CRC's rules, and to bring unauthorized development into compliance. Our primary focus is always on the restoration of impacted natural resources. I look forward to discussing in more detail how DCM's Compliance Program helps to protect coastal resources, property rights and the state's economy at our September meeting.





Coastal Management  
ENVIRONMENTAL QUALITY

PAT MCCRORY  
*Governor*

DONALD R. VAN DER VAART  
*Secretary*

BRAXTON DAVIS  
*Director*

August 30, 2016

**MEMORANDUM**

**CRC-16-36**

**TO:** Coastal Resources Commission  
**FROM:** Ken Richardson, *Shoreline Management Specialist*  
**SUBJECT:** Town of Oak Island Development Line Approval Request

On April 1<sup>st</sup> of this year, the Commission rules were amended to allow oceanfront communities with large-scale beach nourishment or inlet relocation projects to establish a “development line” as an alternative to the Static Vegetation Line. You will recall that a Static Vegetation Line represents the vegetation line that existed just prior to a beach nourishment and must be established and used for measuring construction setbacks for any beach fill project of 300,000 cubic yards or more. The Development Line is established by a local government to represent the seaward-most allowable location of oceanfront development, provided the development can meet the setback measured from the first line of stable and natural vegetation. Under your Development Line rule, buildings and accessory structures could move seaward up to the approved Development Line as long as minimum setbacks are met. Local governments are required to request approval for a Development Line from the Commission according to the procedures outlined in 15A NCAC 7J. 1300.

In order to receive the CRC’s approval for a Development Line, the petitioner shall establish the Development Line using on-ground observation and survey, or aerial imagery along the oceanfront jurisdiction or legal boundary. The proposed Development Line must encompass the entire large-scale beach nourishment project area (length of Static Vegetation Line) and can extend beyond the boundaries of the large-scale project to include the entire oceanfront jurisdiction or legal boundary of the petitioner. In establishing the Development Line, an adjacent neighbor sight-line approach is to be utilized, resulting in an average line of structures. In areas where the seaward edge of existing development is not linear, the Development Line may be determined by average line of construction on a case-by-case basis. In no case shall the Development Line be established seaward of the most seaward structure within the petitioner’s oceanfront jurisdiction.

Once adopted, the petitioner shall then submit the following to the Director of the Division Coastal Management in accordance with CRC’s rules (15A NCAC 07J. 1300):

1. A detailed survey of the Development Line; to also include the Static Vegetation Line;
2. Copy of local regulations/ordinances associated with the Development Line; and
3. Record of local adoption of the Development Line by the petitioner.

On June 14, 2016, the Town of Oak Island adopted the town's Development Line ([Oak Island Development Line](#)) into their ordinances, and is now requesting the Coastal Resources Commission's (CRC) approval. Staff have reviewed all information submitted by the petitioner, and have determined that all required supporting information and documentation have been submitted and attached for the Commission's consideration at the upcoming meeting in Wilmington.

**Attachment A:** Town of Oak Island E-mail Requesting the CRC's Approval of the Town's Development Line

**Attachment B:** Town of Oak Island Development Line Ordinance

**Attachment C:** Town of Oak Island Development Line & Static Vegetation Line Maps

**Attachment D:** Town of Oak Island Town Planning Board recommendation: Development Line Review and Adoption (pgs. 1, 2, 3, 12)

**Attachment E:** Town of Oak Island Town Council Meeting Minutes and Adoption of Development Line (pgs. 1, 2, 9, 10, 16)

**Attachment A:** Town of Oak Island E-mail Requesting CRC's Approval of the Town's Development Line

**From:** planner [<mailto:planner@ci.oak-island.nc.us>]  
**Sent:** Monday, June 20, 2016 10:45 AM  
**To:** Davis, Braxton C <[Braxton.Davis@NCDENR.Gov](mailto:Braxton.Davis@NCDENR.Gov)>  
**Subject:** FW: CRC Agenda

Hello,

On Tuesday night the Oak Island Town Council officially voted and unanimously adopted the Development Line. Would you be able to place us on the next upcoming CRC meeting agenda? If not the following one will be fine. Attached is the shp file (*GIS Shapefile*) and the adopted text amendment.

Thanks,

*Jake Vares*

Town of Oak Island

Senior Planning Director

Development Services Department

910-278-5024

## Attachment B: Town of Oak Island Development Line Ordinance NO.16-1018

Sec. 14-125. - Use and development coverage.

This article shall be applicable to all use of and development on ocean beaches in the town. Included, but not limited to the following, are types of uses and development activity to which this article applies. Specifically, this article is applicable to all oceanfront property owners intending to construct, repair or replace decks, walkways, and/or steps for the purpose of gaining access to the public ocean beach from private property along the oceanfront in the town. This article applies to all persons crossing ocean beaches for the purpose of gaining access to the beaches and Atlantic Ocean.

No structures shall be built seaward of the Oak Island development line except as allowed under CAMA regulations 15A NCAC 07H.0309.

(Ord. of 3-12-2002, ch. 5, art. 1, § 1.6; Amend. of 6-14-2016(3))

Sec. 14-121. - Definitions.

The following words, phrases, and terms, when used in this article, shall have meanings ascribed to them in this section, except where the context clearly indicates a different meaning. Definitions of this article shall be interpreted to be the same as those recognized by the state department of environment and natural resources, the coastal resources commission, and/or the division of coastal management.

*Adverse impact* means anything that would destroy, harm, impair, diminish, or degrade the value or integrity of a sand dune for storm protection or wildlife habitat.

*CAMA* means the Coastal Area Management Act of 1974.

*CRC* means the state coastal resources commission.

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

*Development line* means the line established in accordance with 15A NCAC 07J.1300 by local governments 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, subject to the provisions of 15A NCAC 07H.0306(a)(2).

*Division of coastal management* means a division of the state department of environment and natural resources charged by the state with the administration and enforcement of the Coastal Area Management Act of 1974.

*Dune system.*

*Frontal dune* means the first mound of sand located landward of the beach having sufficient vegetation, height, continuity, and configuration to offer protective value.

*Secondary dune* means, for the purposes of the administration and enforcement of this article, those dunes or berms and sand management project areas, either manmade or natural, that meet the

continuity of the existing surrounding primary frontal dunes. Regulations that apply to the frontal dunes also apply to the secondary dunes.

*Dunes (natural or manmade)* means, for the purposes of the administration and enforcement of this article, those dunes or berms and sand management project areas, either manmade or natural, in existence as of December 10, 1999, and/or those restored by the town or other public entity. It shall also apply to any placement of materials from any other soil deposition project undertaken after the adoption of this article.

*Imminently threatened* means the foundation of the primary structure is less than 20 feet from the toe of the erosion scarp and/or the septic system is exposed.

*Invasive exotic species* means a non-native or invasive vegetation, which, if left undisturbed by manmade forces, will create a landscape comprised of a singular plant species.

*Ocean beach* means lands consisting of unconsolidated soil materials that extend from the mean low water mark landward to the mean high water mark as surveyed by the U.S. Army Corps of Engineers in January 2000; to a point where either the growth of vegetation occurs or a distinct change in slope of elevation alters the configuration of landform, whichever is further landward.

*Oceanfront private property* means, for purposes of this article, oceanfront private property ends at the mean high water mark as surveyed by the U.S. Army Corps of Engineers in January 2000.

*PCA* means the project cooperation agreement entered into by the town and the U. S. Army Corps of Engineers prior to the commencement of the sea turtle habitat restoration project (sea turtle project), the Wilmington Harbor section 933 project (harbor project), or any other sand placement project entered into by the town and other government agency following the adoption of this article.

*Tents* means a portable shelter supported by a framework of multiple poles (this is not to include umbrellas, which have one supporting pole in the center of the shelter).

*USACE* means the United States Army Corps of Engineers.

*Vehicle* means a motor-driven or wind-powered vehicles, including fishing boats and amphibious vehicles, but excluding sailboats used for sport, surfboards and amphibious vehicles which are afloat and no portion of which is beached, aground, or operating on wheels or tracks.

(Ord. of 3-12-2002, ch. 5, art. 1, § 1.7; Amend. of 5-10-2016(1); Amend. of 6-14-2016(3))

**Cross reference**— Definitions generally, § 1-2.

**Attachment C: Town of Oak Island Development Line & Static Vegetation Line Maps**



Map is to be used to only show the general vicinity and is not to be used for any other purpose. Map is to be used for general informational purposes only. Data used to generate this map was gathered from various sources.

# Oceanfront Development Line Map

Town of Oak Island, NC



Map created by:  
 Jake Vares  
 Town of Oak Island  
 Development Services Department  
 4601 E. Oak Island Drive  
 Oak Island, NC 28465  
 06/24/2016

Frame 1





**Legend**

|  |                                 |   |
|--|---------------------------------|---|
| Proposed Town Development Line         | Ocean Front Parcels             | Contours  |
| 1998 Static Vegetation Line            | Undeveloped Ocean Front Parcels | Beach Fill Slope                                    |
| Oak Island 2012 Vegetation Line        | Ocean Front Building Footprints | Beach Access  |
| 60ft Setback from 2012 Vegetation Line | Mean High Water                 | Streets   |
| Elevation                              | Berm Line                       | Sandbags (mostly past or current)                   |
|  |                                 | Structure Line from ShorelineMgmt Feasibility Study |

Source: East, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/Satellite, USDA, USDA, NGA, GeoEye, AeroGRID, IGN, IGA, swisstopo, and the U.S. Government

Map is to be used to only show the general vicinity. Address numbers shown on map are not to be used for general information purposes only. Data used to generate this map was gathered from disparate sources.

## Oceanfront Development Line Map

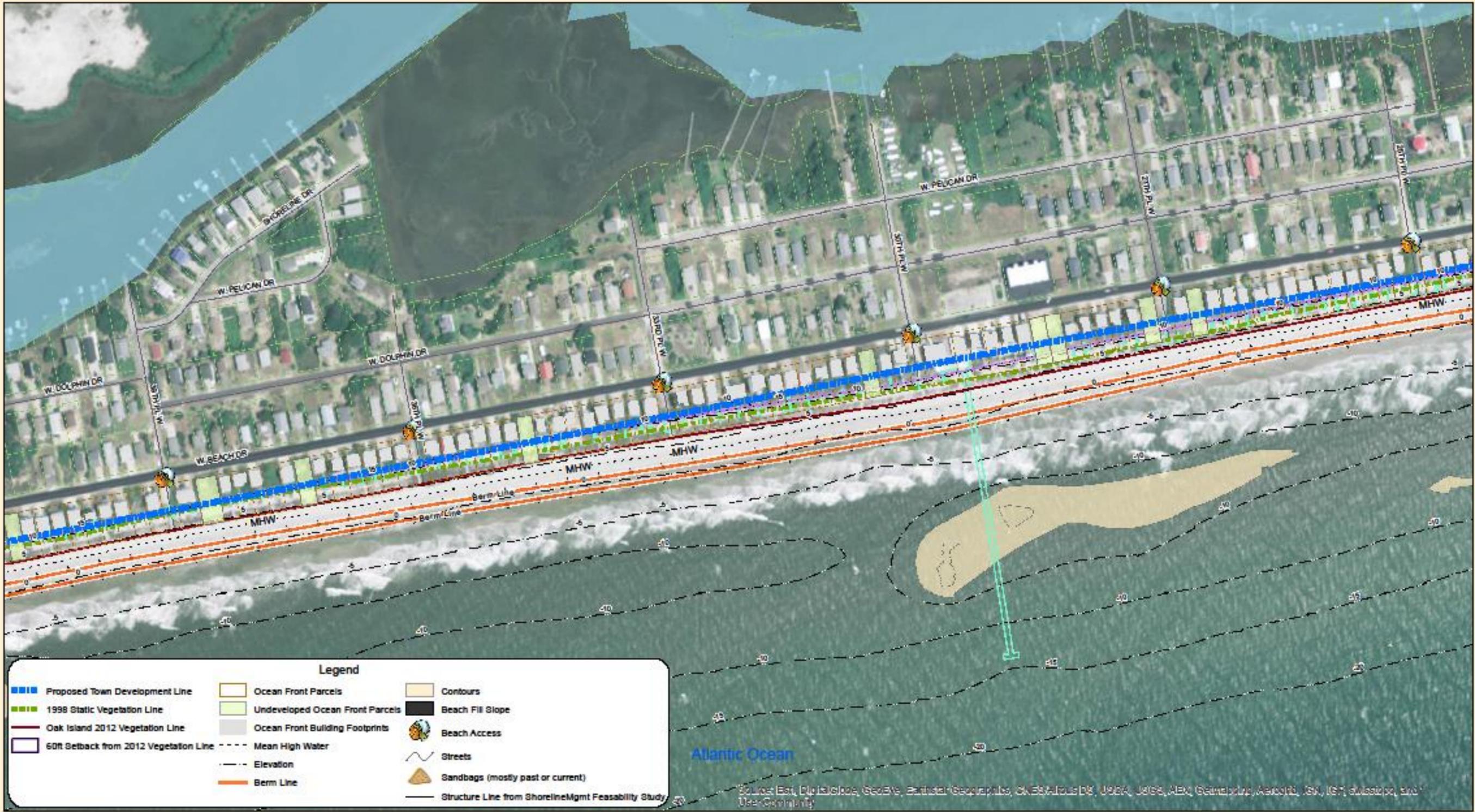
Town of Oak Island, NC



Map created by:  
 Jake Vares  
 Town of Oak Island  
 Development Services Department  
 4601 E. Oak Island Drive  
 Oak Island, NC 28465  
 06/24/2016

Frame 2





Map is to be used to only show the general vicinity. Address numbers cannot be shown. Map is to be used for general informational purposes only. Data used to generate this map was gathered from disparate sources.

## Oceanfront Development Line Map

Town of Oak Island, NC



Map created by:  
 Jake Vares  
 Town of Oak Island  
 Development Services Department  
 4601 E. Oak Island Drive  
 Oak Island, NC 28465  
 06/24/2016

Frame 3





**Legend**

|  |                                 |   |
|--|---------------------------------|---|
| Proposed Town Development Line         | Ocean Front Parcels             | Contours  |
| 1998 Static Vegetation Line            | Undeveloped Ocean Front Parcels | Beach Fill Slope                                    |
| Oak Island 2012 Vegetation Line        | Ocean Front Building Footprints | Beach Access  |
| 60ft Setback from 2012 Vegetation Line | Mean High Water                 | Streets   |
| Elevation                              | Berm Line                       | Sandbags (mostly past or current)                   |
|  |                                 | Structure Line from ShorelineMgmt Feasibility Study |

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the Usercommunity

Map is to be used to only show the general vicinity. Address numbers cannot be guaranteed. Map is to be used for general informational purposes only. Data used to generate this map was gathered from disparate sources.

## Oceanfront Development Line Map

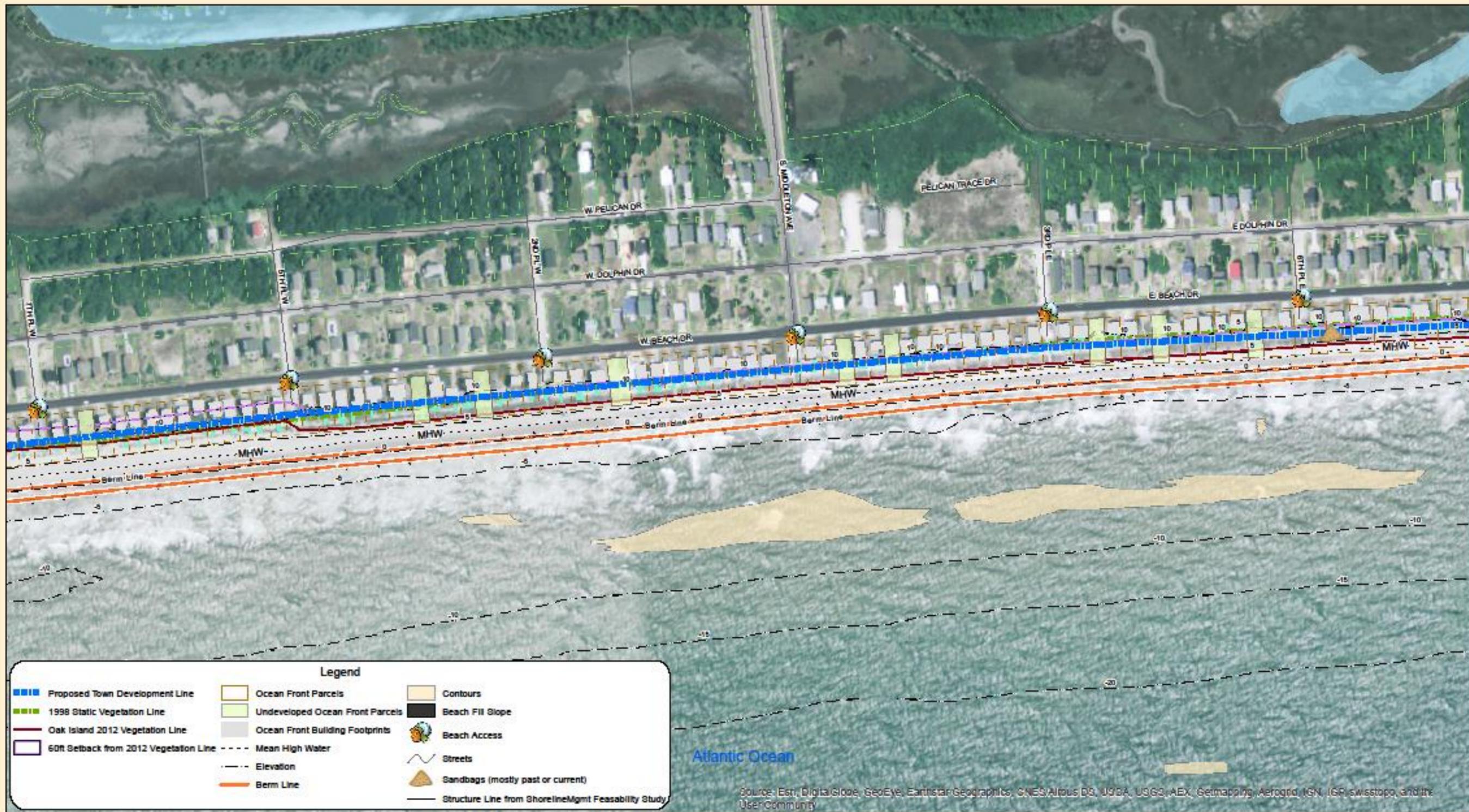
Town of Oak Island, NC



Map created by:  
 Jake Vares  
 Town of Oak Island  
 Development Services Department  
 4601 E. Oak Island Drive  
 Oak Island, NC 28465  
 06/24/2016

Frame 4

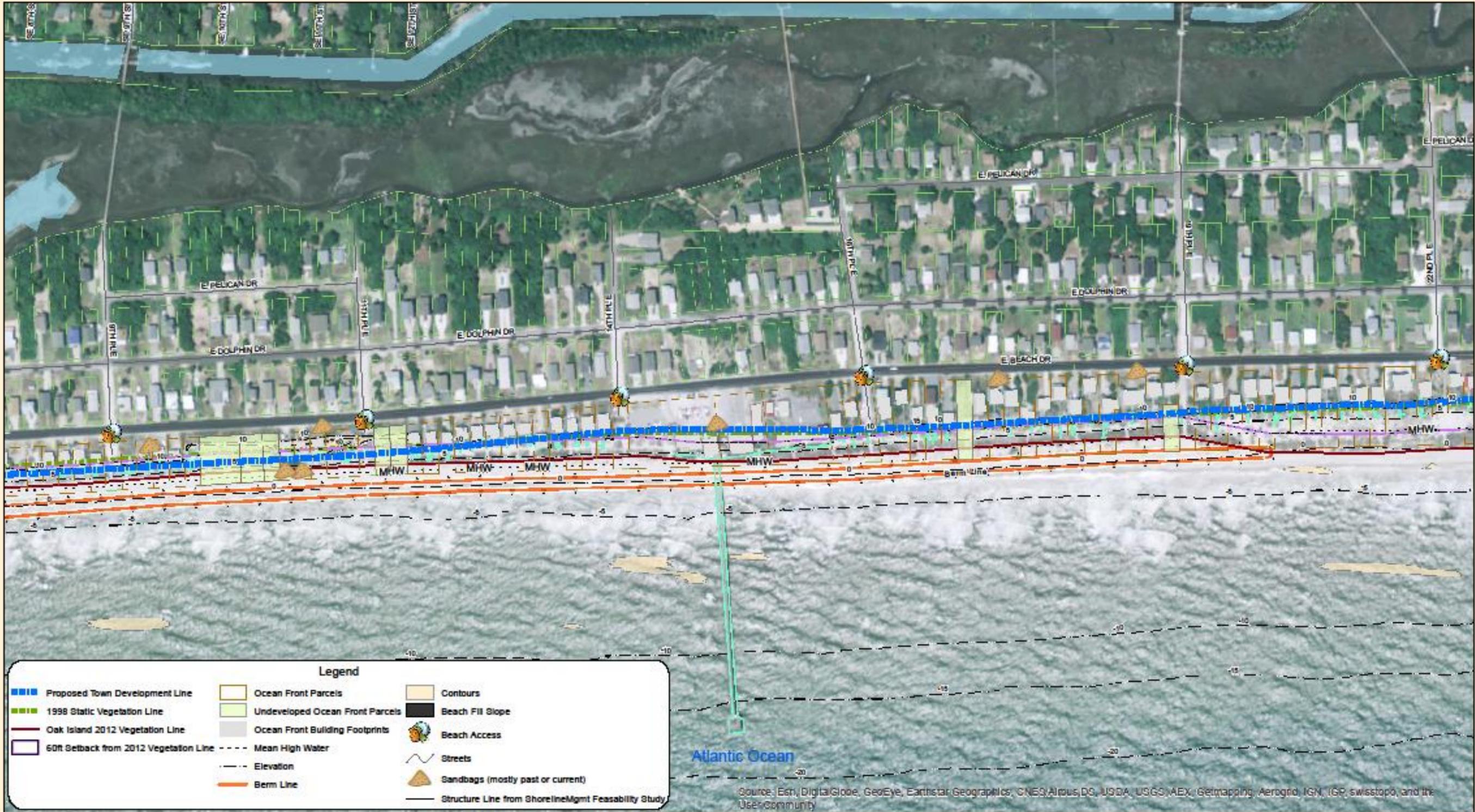




**Legend**

|  |                                   |   |
|--|-----------------------------------|---|
| Proposed Town Development Line         | Ocean Front Parcels               | Contours  |
| 1998 Static Vegetation Line            | Undeveloped Ocean Front Parcels   | Beach Fill Slope                                    |
| Oak Island 2012 Vegetation Line        | Ocean Front Building Footprints   | Beach Access  |
| 60ft Setback from 2012 Vegetation Line | Mean High Water                   | Streets   |
| Elevation                              | Sandbags (mostly past or current) | Structure Line from ShorelineMgmt Feasibility Study |
| Berm Line                              |                                   |   |

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the UserCommunity



**Legend**

|  |                                   |   |
|--|-----------------------------------|---|
| Proposed Town Development Line         | Ocean Front Parcels               | Contours  |
| 1998 Static Vegetation Line            | Undeveloped Ocean Front Parcels   | Beach Fill Slope                                    |
| Oak Island 2012 Vegetation Line        | Ocean Front Building Footprints   | Beach Access  |
| 60ft Setback from 2012 Vegetation Line | Mean High Water                   | Streets   |
| Elevation                              | Sandbags (mostly past or current) | Structure Line from ShorelineMgmt Feasibility Study |
| Berm Line                              |                                   |   |

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the User/Community

Map is to be used to only show the general vicinity. Address numbers should be 100% guaranteed for accuracy. Map is to be used for general informational purposes only. Data used to generate this map was gathered from disparate sources.

## Oceanfront Development Line Map

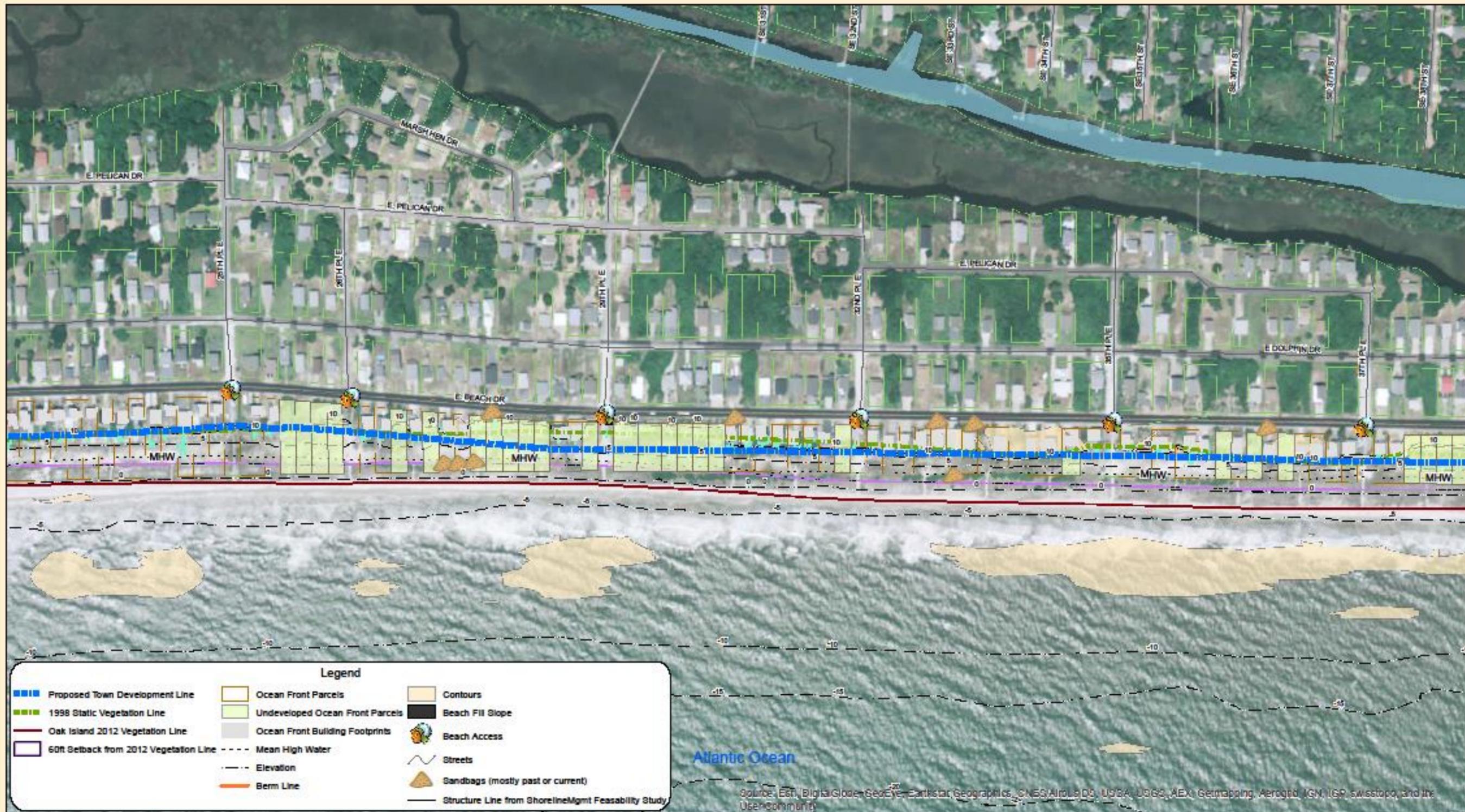
Town of Oak Island, NC



Map created by:  
 Jake Vares  
 Town of Oak Island  
 Development Services Department  
 4601 E. Oak Island Drive  
 Oak Island, NC 28465  
 06/24/2016

Frame 6





Source: Esri, Baidu, Google, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the User Community

Map is to be used to only show the general vicinity. Address numbers should be used for general informational purposes only. Data used to generate this map was gathered from disparate sources.

# Oceanfront Development Line Map

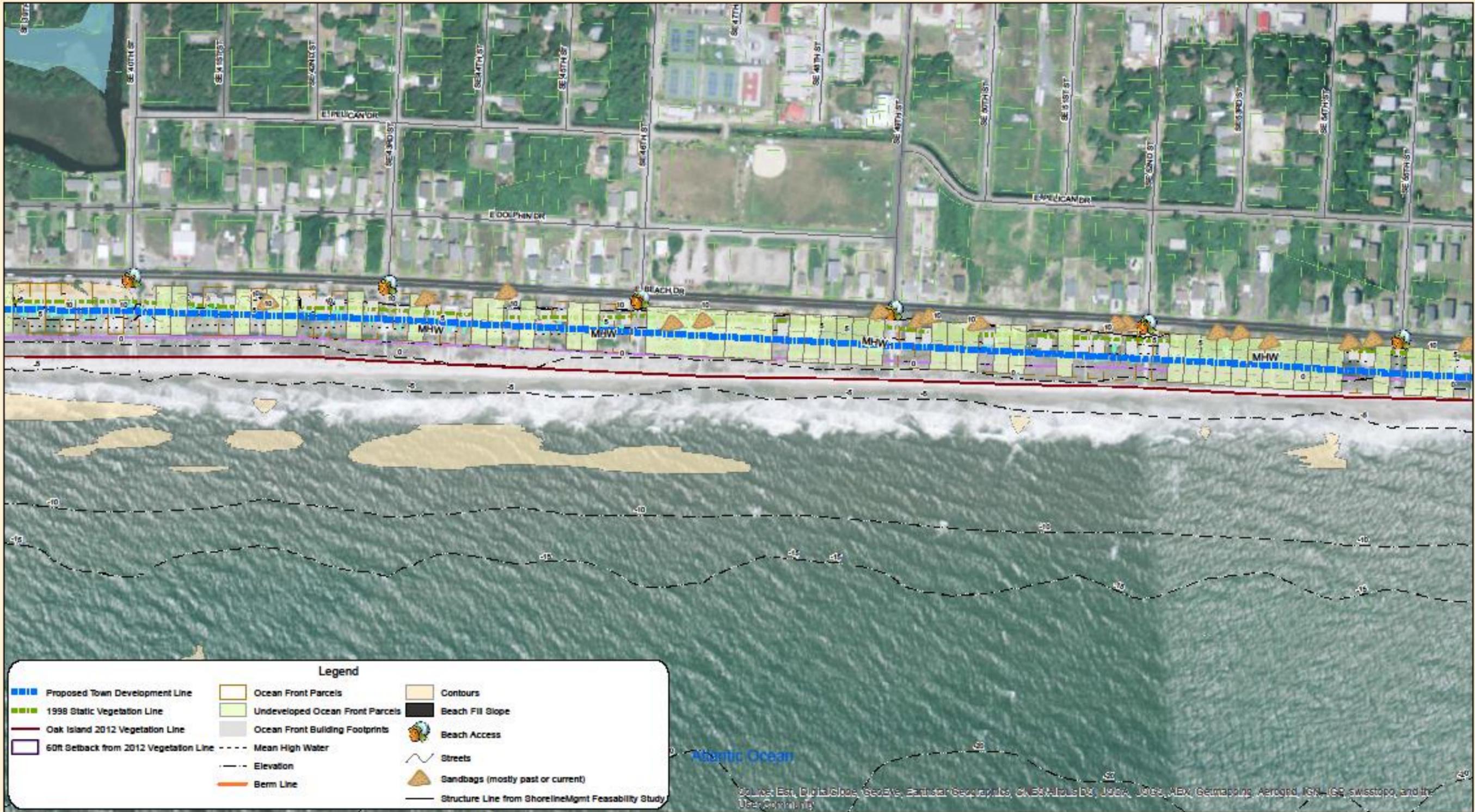
Town of Oak Island, NC



Map created by:  
 Jake Vares  
 Town of Oak Island  
 Development Services Department  
 4601 E. Oak Island Drive  
 Oak Island, NC 28465  
 06/24/2016

Frame 7





Map is to be used to only show the general vicinity. Address numbers shown on property map is to be used for general informational purposes only. Data used to generate this map was gathered from disparate sources.

# Oceanfront Development Line Map

Town of Oak Island, NC



Map created by:  
 Jake Vares  
 Town of Oak Island  
 Development Services Department  
 4601 E. Oak Island Drive  
 Oak Island, NC 28465  
 06/24/2016

Frame 8



Source: Est. Digital Globe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGS, Swisstopo, and the User Community



**Legend**

|   |                                 |                                   |
|---|---------------------------------|-----------------------------------|
| Proposed Town Development Line                      | Ocean Front Parcels             | Contours                          |
| 1998 Static Vegetation Line                         | Undeveloped Ocean Front Parcels | Beach Fill Slope                  |
| Oak Island 2012 Vegetation Line                     | Ocean Front Building Footprints | Beach Access                      |
| 60ft Setback from 2012 Vegetation Line              | Mean High Water                 | Streets                           |
| Elevation   | Berm Line                       | Sandbags (mostly past or current) |
| Structure Line from ShorelineMgmt Feasibility Study |                                 |                                   |

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the User community

Map is to be used to only show the general vicinity. Address numbers cannot be 100% guaranteed for accuracy. Map is to be used for general informational purposes only. Data used to generate this map was gathered from disparate sources.

# Oceanfront Development Line Map

Town of Oak Island, NC



Map created by:  
 Jake Vares  
 Town of Oak Island  
 Development Services Department  
 4601 E. Oak Island Drive  
 Oak Island, NC 28465  
 06/24/2016

Frame 9





**Legend**

|  |                                   |   |
|--|-----------------------------------|---|
| Proposed Town Development Line         | Ocean Front Parcels               | Contours  |
| 1998 Static Vegetation Line            | Undeveloped Ocean Front Parcels   | Beach Fill Slope                                    |
| Oak Island 2012 Vegetation Line        | Ocean Front Building Footprints   | Beach Access  |
| 60ft Setback from 2012 Vegetation Line | Mean High Water                   | Streets   |
| Elevation                              | Sandbags (mostly past or current) | Structure Line from ShorelineMgmt Feasibility Study |
| Berm Line                              |                                   |   |

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, ISF, Swire, and the User Community

**Attachment D: Town of Oak Island Town Planning Board Recommendation: Development Line Review and Adoption (pgs. 1, 2, 3, 12)**

**TOWN OF OAK ISLAND  
TOWN COUNCIL  
AGENDA ITEM MEMO**

Agenda Item: Lisa

Date: 6/3/2016

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**Issue:** Development Line

**Department:** Planning & Zoning Administrator

**Presented by:** Steve Edwards

**Presentation:** None

**Estimated Time for Discussion:** 15 Minutes

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**Subject Summary:**

Any local government may petition the Coastal Resources Commission (CRC) for a development line to guide ocean front development. The development line would serve to mark the ocean-ward limit where structures could be built to, like a traditional setback line. With a CRC approved development line, a structure must also meet the graduated CAMA setback requirements measured from first line of stale and natural vegetation. The official definition of development line according to 15A NCAC 07H .0305 (10) is *“The line established in accordance with 15A NCAC 07J .1300 by local governments 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, subject to the provisions of 15A NCAC 07H .0306(a)(2).”* The methodology to create the suggested town development line was to draw several potential development lines, via GIS, that showed the distance of feet from the front property line and calculate how many existing structures interested or were beyond the proposed development line. This serves to illuminate for staff the amount of ocean front structures that would be made non-conforming. Staff also calculated the number of existing structures that were behind the development line and would not be effected. Town staff reviewed 4 possible development line possibilities and determined that the 85 foot line was most suitable. If this development line ordinance were to be adopted, some structures would be made non-conforming and many would have their non-conforming status removed. In no case can the proposed development line be established below the mean high water line.

There are approximately 525 total ocean front residential structures that are parallel to the proposed development line. Approximately a total of 440 ocean front residential parcels are landward of the proposed development line and do not intersect with it at all. 167 parcels are undeveloped along the proposed development line. 129 parcels (142 lots) are identified as currently unbuildable along the ocean-front. The map is only specifically concerned with properties along the proposed development line; therefore the total number of ocean front parcels is not listed. 85 ocean front houses touch or exceed the 85 ft. proposed town ocean front development line. That figure grows higher the smaller the distance from

the front property line the ocean front development line is drawn. A majority of the 85 structures that do happen to touch the development line do so at the edge, so if they were forced to rebuild most of the structure placements would only have to be slightly adjusted.

The town still has the existing lot setback lines, which vary per zoning district, and they will remain in place and still have to be followed. Most of the ocean front lots are platted with an approximate 150ft of lot depth. The town's development line is the most seaward one can build but a CAMA permit is still required to build 60ft back from that first CAMA development line. There are CAMA exceptions for accessory structures and they would still apply to accessory structures that are past the town development line. The exemptions are listed in the CAMA guidelines. Some examples of the CAMA accessory exemptions are a 500 sq. ft. elevated walkway, campsites, elevated decks less than 500 sq. ft., sand fences, single storage sheds less than 200 sq. ft., temporary amusement stands, and a 200 sq. ft. gazebo. The town adopted development line would not restrict this. Swimming pools are permitted within the setbacks, but must be located landward of the static vegetation line. The town currently uses the 1998 static vegetation line. The town does not use this 2012 line because there are no regulations associated with it and credits are not given to property owners for additional growth in beach/vegetation due to natural changes or beach renourishment. It is important to note that just because a proposed structure is landward of the town development line the property owner will still have to meet the 60ft static vegetation line requirements.

The data on the maps represent the Static Vegetation Line (SVL), and location of First Line of Stable-Natural Vegetation (FLSNV) on the oceanfront prior to the start of a "large scale" beach nourishment/fill project. Currently, North Carolina defines "large scale" as any project placing 300,000 cubic yards or more, or a US Army Corps of Engineers (USACE) Storm Protection project. Where these projects occur, oceanfront construction/development setbacks must be measured from the Static Vegetation Line; unless a community has an approved Static Vegetation Line Exception.

If a structure is seaward of the adopted development line and is damaged it is allowed to rebuild unless the damage is greater than 50% according to 15A NCAC 07J.0210. The development line is conforming throughout the Oak Island ocean-front but there are some locations where keeping the development line linear is not sensible. That area on the map where the proposed town development line is adjusted is in frame 6 and frame 10. Those locations have unusually elongated parcels where the traditional 85ft line rule isn't applicable. Upon reviewing these areas with the Division of Coastal Management, the development line was drawn to mirror the existing development line and back of the existing structures.

In some locations along the Oak Island oceanfront there is not a proposed town development line at all due to the unique parcels in those areas. It would not be advantageous to have a town development line in

the places where there is one currently not drawn. The normal, already established, building and permitting process would remain in those areas.

In order for a municipality to have an ocean-front development line the town must follow the process detailed by the Division of Coastal Management (DCM) in section 300 15A NCAC 07J0 1301. The town must submit an aerial map showing the proposed development line and the current static vegetation line. The GIS data has to contain all the proper FGDC (Federal Geographic Data Committee) meta-data. The coordinates of the development line are labeled throughout the map so the location can be verified by DCM. Finally, the documentation of the adopted text amendment that covers the development line must be provided to DCM staff and the CRC. Before we submit, the Town must first incorporate the Development Line into our Town Ordinance(s), and provide a copy of the ordinance(s) that pertain to the development line. The reason for this is that it shows the CRC that the Town recognizes the line as an enforceable building line limitation. The CRC cannot request a change to the town development line after they have approved it. The DCM staff has been contacted regarding this issue. The state guidelines and regulations regarding a development line are attached to this staff memorandum.

The CRC is required to decide on the development line petition at the meeting where it is on their agenda and no later than the following CRC meeting. Once/if the development is adopted by the CRC and therefore becomes official, staff will place the new development line on the town's online GIS map where the current vegetation line is displayed. The URL is: <http://www.oakislandnc.com/General-Info/Maps-and-Flood-Insurance-Info.aspx>. Only the town can petition to have the location of the development line changed after CRC adoption. The text amendment is in Chapter 14 – Environment, because that is the section in the town Code of Ordinances that pertains to CAMA regulations. The text amendment language and required maps are all attached. The Planning Board has voted to recommend approval of this ordinance text amendment. If adopted the development line will be posted on the towns' webpage containing the interactive map that shows the ocean vegetation line.

---

**Attachments:** Text Amendment, State Development Line Regulations, Plan Consistency Statement

**Planning Board Recommendation:** Approval

**Suggested Motion:** Motion to approve or deny proposed Text Amendment

**Funds Needed:** \$0.00

**Follow-up Action Needed:** Submit to CRC, update ordinance

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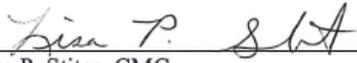


**Attachment E:** Town of Oak Island Town Council Meeting Minutes and Adoption of Development Line (pgs. 1, 2, 9, 10, 16)

CLERK CERTIFICATION

I, Lisa P. Stites, Town Clerk of the Town of Oak Island, North Carolina, do hereby certify that the following is a true and exact copy of the approved Minutes for the June 14, 2016 Oak Island Town Council meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official Seal of the Town of Oak Island, North Carolina, this the 10<sup>th</sup> day of August, 2016.

  
\_\_\_\_\_  
Lisa P. Stites, CMC  
Town Clerk  
Oak Island, North Carolina



MINUTES  
OAK ISLAND TOWN COUNCIL  
PUBLIC HEARINGS & REGULAR MEETING  
June 14, 2016 – 6 P.M.  
OAK ISLAND TOWN HALL

Present: Mayor Cin Brochure, Mayor Pro Tempore Jim Medlin, Councilors Sheila M. Bell, Charlie K. Blalock, Loman Scott and Jeff Winecoff, Interim co-Manager Lisa P. Stites, CMC, Town Attorney Brian Edes and Administrative Support Specialist Debbie Lasek.

Mayor Brochure called the meeting to order at 6:00 p.m. Mayor Pro Tempore Medlin gave the invocation and led the Pledge of Allegiance to the flag.

COUNCIL REPORTS (MAYOR AND COUNCIL)

Mayor Pro Tempore Medlin attended the groundbreaking for Pine Forest Plantation and said he feels it will be a good thing for Oak Island. Councilor Winecoff reported on the first graduating class of the Citizens Academy, and congratulated participants and staff. Mayor Brochure said she had been advocating in Raleigh twice last month advocating for sand, and hopefully next year the Town will have money for funding.

PUBLIC HEARING 1: Mayor Brochure said the purpose of the Public Hearing is to receive citizens' comments on beach nourishment and potential funding methods.

Ruth Somers, 1608 E. Yacht Drive: Ms. Somers said she has lived here since 1973. Regarding beach plan funding, she said she knows the ocean is dynamic and that storms come and go, sometimes along with houses. People who build on the oceanfront accept that risk and others build away from the ocean. With the growth of Oak Island has come the necessity of the water system and sewer system, the addition of fire and rescue and the building of state-of-the-art buildings. Recent attempts to replace the sand can run up to \$67 million. This is a working class beach, and many don't have the money to stay here. There have been many suggestions as to where this money can come from like the federal government and day trippers, but residents are taxed from everywhere. She said the state owns the beachfront and the Town does not, and a vote should be put before the people.

Richard Bunce, 125 NE 26<sup>th</sup> Street, written comments as provided: As usual Town officials and their surrogates discussing beach nourishment quickly roll out the scare tactics with dramatic pictures and wild predictions. For instance the costs experienced up the coast were mostly legal costs reflecting a failure of Federal, State, and Local governments to create effective Statutes and Ordinances for removal of dangerous structures and not due to a lack of nourishment. Thankfully there is another way forward. Managed retreat is being implemented in communities that recognize the folly of paying ever increasing dollars to place sand on the beach that is very likely to become less and less effective particularly in the face of significant sea level rise. It is surprising that in the several presentations and online materials about the Town's beach nourishment planning, sea level rise was not mentioned. I asked Mr. Ravella about his assumptions after his presentation a couple weeks ago and he admitted that in the cost estimates presented the assumption for sea level rise was zero but would be in a future estimate. It seems the point was to include enough to get the permits and not necessarily the true cost. This sounds a lot like the recent wastewater project and we know how that turned out. I know there are many environmentalists in Town regularly speaking on such issues would be disappointed to hear that as should all property owners who would be on the hook to pay even greater costs for a beach nourishment project that a Corp of Engineers report from the early 2000s stated would be ineffective in the presence of significant sea level rise. Think sea wall around the entire island without the tax base of a New Orleans to pay for it.



**Mayor Pro Tempore Medlin made a motion to close the public hearing. Councilor Scott seconded, and the motion passed unanimously.**

PUBLIC HEARING 3: Mayor Brochure said the purpose of the Public Hearing was to receive citizens' comments on a proposed amendment to Sec. 14-121. – Definitions and Sec. 14-125. - Use and development coverage; to define the Town oceanfront development line and to adopt regulations that all oceanfront parcels shall not build principal structures seaward of the Oak Island, and Coastal Resource Commission adopted, development line.

Dara Royal, 216 NE 46<sup>th</sup> Street, written comments provided as follows: Last month, I encouraged Council to approach the location of a development line with respect to the building envelope created. The real short-term benefit of replacing the static vegetation line with a development line is the creation a few buildable lots in areas where a development line is at least 60 feet landward of the first line of stable natural vegetation. The long-term benefit will not be realized for those or any oceanfront lots without future beach nourishment. In the Town of Oak Island, in order for an oceanfront vacant lot to be considered buildable for the purposes of levying a sewer assessment, there must be a building envelope at least 20 feet deep plus a 15 foot street-side setback along with the required oceanfront setback from the static vegetation line. A building envelope 20 feet deep plus a street-side setback of 15 feet equals 35 feet. So, a 35 foot development line would make every oceanfront lot buildable, if it is also setback at least 60 feet from the first line of stable natural vegetation. But, of course, you would want a building envelope deeper than 20 feet, if at all possible. Ok, let's double it to 40 feet deep, which is more than the average depth of existing oceanfront houses. A building envelope 40 feet deep plus a street-side setback of 15 feet equals 55 feet. So, a 55 foot development line would make every oceanfront lot buildable to a greater extent than existing oceanfront development, if that line is also setback at least 60 feet from the first line of stable natural vegetation. But what if it's more than 60 feet to the first line of stable natural vegetation from a 55 foot development line? Be grateful. 20 years ago, 90% of oceanfront lots bordering our shoreline were not buildable with a minimum building envelope 20 feet deep and a street-side setback of 30 feet. 20 plus 30 equals 50 feet. Many people have worked diligently since then to position the Town to reverse that fact and make those lots buildable again. I am one of those people. And given my first-hand knowledge and experience, there is nothing in me that could ever approve a development line greater than 55 feet or the distance to the static vegetation line, whichever is farther from the street. And given that it will take 2 to 4 years to obtain permits for sand for beach nourishment, I would not in good conscience be able to approve a development line greater than 35 feet or the distance to the static vegetation line, whichever is farther from the street. I realize you're not me, and it's not my decision to make, it's yours. But I do sincerely and respectfully request that you significantly scale back the proposal on the table for an 85 foot development line.

Kyle Herring, Cape Fear Engineering, 151 Poole Rd., Fayetteville: Mr. Herring said he is here tonight on behalf of the Capel Family, and is here to offer support from them for the new development line. He said he feels the Council has enough information to make the decision and should feel comfortable in making a decision, and the Capel family will provide any support.

Ted Manos, 3022 W. Beach Drive: Mr. Manos said scaling back the development line from 85 feet would wipe out the ability of an untold number of buildings to be able to rebuild and increase the value of their homes, with resulting increases in taxes and income. After spending all night listening to ways the Town needs to make money, he implores them to not waste the time put in by Town staff and the Planning Board in meetings to set the development line at 85 feet, consistent with the 60 foot setback and consistent with what the CRC would pass.



Councilor Bell asked where the 85-foot setback comes from; Mr. Edwards said that Town Planner Jake Vares started out at 70 feet for comparison. The Oak Island oceanfront is not lined up in a consistent manor. When they got to the 85-foot line, it had the least number of nonconforming homes (about 85 properties). Staff proposed keeping the static vegetation line in areas where that is more beneficial. In other areas, moving the development line more seaward worked as a fair and practical way to give property owners their rights back. He stands by the original staff recommendation. Mayor Pro Tempore Medlin inquired about the 85 non-conforming structures; Mr. Edwards said they are already non-conforming. Councilor Winecoff said thinks staff has done their homework, and he feels comfortable with the proposal.

**Councilor Scott made a motion to close the public hearing. Councilor Blalock seconded, and the motion passed unanimously.**

**PUBLIC HEARING 3 ACTION: Mayor Pro Tempore Medlin made a motion to approve this amendment, section 14-121 and 14-125, as presented and to direct staff to forward the Town's request to the Coastal Resource Commission for consideration at its next meeting. Councilor Scott seconded, and the motion passed unanimously.**

**PUBLIC HEARING 4:** Mayor Brochure the purpose of the Public Hearing was to receive citizens' comments on a proposed amendment to Sec. 18-669. - Standards for limited residential development; and Sec. 18-663. - Applications for approval; and Sec. 18-670 - Standards for stormwater control measures to require impervious surface areas to be shown on site-plan surveys; and to require professional stormwater engineered design drawings when a new home or an existing home addition would exceed 45% impervious surface coverage. The public hearing for the text amendment is also for. 32-72 – Definitions - and Sec. 32-77 - No clearing without permit – to define clear cutting and to not allow clear cutting without a permit; and to mandate a fine for clear cuttings and the replacement of trees if illegally removed.

There were no public speakers. Mr. Vares summarized the proposed amendment.

Councilor Winecoff commented on sea oaks (live oaks) and the necessity to keep them regardless of the size, and emphasized the need to keep these natural trees on the island. Mayor Pro Tempore Medlin asked and Councilor Winecoff answered that not all of them get very thick, even chest high. He feels that they are eliminating the sea oaks before they have the chance to grow bigger, and they are a natural tree that should be allowed to get bigger. Mr. Vares said they could add some language about the live oaks, and added that the certified trees list is referenced in the ordinance, has been adopted and is on line. Councilor Blalock commented that \$500 is the highest penalty that the State would allow them, but Mr. Vares said perhaps it could be made "per tree" and that he could investigate the legalities. Councilor Blalock questioned the practice of leaving only trees at the edge of the lot, and he wondered if palm trees would count as a replacement. Mr. Vares explained the mathematic formula used to determine the number of trees that must be saved, and they are obliged to permit it if they are within the law and are in compliance. Mayor Pro Tempore Medlin said that if there are no trees on the lot 5" in caliper, then they could in effect remove all the trees on the lot. Mr. Vares said the Tree Protection ordinance would provide protection in those circumstances, and that the arborist is working on it. Mayor Pro Tempore Medlin suggested that perhaps they should wait for further information to take action. He then questioned Mr. Vares about lots recently cleared on Ocean Drive, around 76<sup>th</sup> or 77<sup>th</sup> street; there were no trees on those lots, only bushes that had been sculpted by the wind over years. He wondered if those bushes were considered as trees. Mr. Vares said it would depend on the size and the species. Councilor Bell clarified that, unless there were trees, they could bush hog it. Mayor Pro Tempore Medlin would like to see a required number of trees be put back on a lot. Mr. Vares said he would add this to the ordinance.

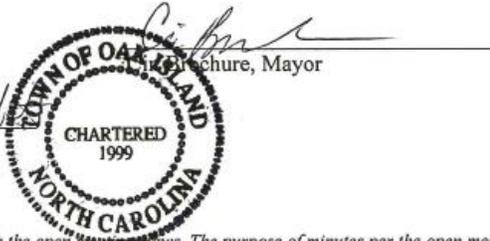
already have problems with enforcement. His department wrote 12 citations last weekend, but there were many more that could have been written. He would have to seriously study this proposal to see how his department would be able to act reliably. Councilor Winecoff said that he rode today with Ms. Stites to review parking issues; one of the things they discussed was sitting down and discussing options. This business would require a media blitz if adopted; they need to get things in the works. Mayor Brochure said has spoken with Ms. Cutler and invited her to come present her proposal; it looks like a great plan, and she thinks it is time to start a discussion and review legal aspects. Mayor Brochure added that she would rather see the business kept local, and she likes the idea of business participation.

**Councilor Bell made a motion to go into closed session at 9:48 p.m. to discuss pending litigation and specific personnel pursuant to 143.318-311(a)(3) and (6). Councilor Scott seconded, and the motion passed unanimously.**

Council returned at 10:01 p.m. Mayor Brochure noted that no action was taken in Closed Session.

**Councilor Bell made a motion to adjourn at 10:02 p.m. Councilor Winecoff seconded and the motion passed unanimously.**

ATTESTED: Lisa P. Stites  
Lisa P. Stites, CMC  
Town Clerk



*Clerk's Statement: Minutes are in compliance with the open meeting laws. The purpose of minutes per the open meetings laws is to provide a record of the actions taken by a Council or a Board and evidence that the actions were taken according to proper procedures. All actions of the Council are recorded in the official minutes. Not all portions of Town of Oak Island meetings are recorded verbatim in the official minutes, with general discussion items, reports, presentations, and public comments being paraphrased or summarized in many instances. Public comments in writing should be submitted to the clerk via hard copy, electronic mail, or other means so as to ensure an exact verbatim account. The Town of Oak Island provides full coverage of meetings on Government Channel 8 so that the Citizens and the Public may view and listen to the meetings in their entirety.*



Coastal Management  
ENVIRONMENTAL QUALITY

PAT MCCRORY  
*Governor*

DONALD R. VAN DER VAART  
*Secretary*

BRAXTON DAVIS  
*Director*

August 30, 2016

**MEMORANDUM**

**CRC-16-37**

**TO:** Coastal Resources Commission  
**FROM:** Ken Richardson, *Shoreline Management Specialist*  
**SUBJECT:** Town of Carolina Beach Development Line Approval Request

On April 1<sup>st</sup> of this year, the Commission rules were amended to allow oceanfront communities with large-scale beach nourishment or inlet relocation projects to establish a “development line” as an alternative to the Static Vegetation Line. You will recall that a Static Vegetation Line represents the vegetation line that existed just prior to a beach nourishment and must be established and used for measuring construction setbacks for any beach fill project of 300,000 cubic yards or more. The Development Line is established by a local government to represent the seaward-most allowable location of oceanfront development, provided the development can meet the setback measured from the first line of stable and natural vegetation. Under your Development Line rule, buildings and accessory structures could move seaward up to the approved Development Line as long as minimum setbacks are met. Local governments are required to request approval for a Development Line from the Commission according to the procedures outlined in 15A NCAC 7J. 1300.

In order to receive the CRC’s approval for a Development Line, the petitioner shall establish the Development Line using on-ground observation and survey, or aerial imagery along the oceanfront jurisdiction or legal boundary. The proposed Development Line must encompass the entire large-scale beach nourishment project area (length of Static Vegetation Line) and can extend beyond the boundaries of the large-scale project to include the entire oceanfront jurisdiction or legal boundary of the petitioner. In establishing the Development Line, an adjacent neighbor sight-line approach is to be utilized, resulting in an average line of structures. In areas where the seaward edge of existing development is not linear, the Development Line may be determined by the average line of construction on a case-by-case basis. In no case shall the Development Line be established seaward of the most seaward structure within the petitioner’s oceanfront jurisdiction.

Once adopted, the petitioner shall then submit the following to the Director of the Division Coastal Management in accordance with CRC’s rules (15A NCAC 07J. 1300):

1. A detailed survey of the Development Line; to also include the Static Vegetation Line;
2. Copy of local regulations/ordinances associated with the Development Line; and
3. Record of local adoption of the Development Line by the petitioner

On July 12, 2016, the Town of Carolina Beach adopted the town's Development Line into their ordinances, and is now requesting the Commission's approval. Staff have reviewed all information submitted by the petitioner, and have determined that all required supporting information and documentation have been submitted and attached for the Commission's consideration at the upcoming meeting in Wilmington.

**Attachment A:** Letter requesting the CRC's approval of the Town's Development Line

**Attachment B:** Town of Carolina Beach Development Line Ordinance (16-1018)

**Attachment C:** Town of Carolina Beach Development Line & Static Vegetation Line Maps

**Attachment D:** Town of Carolina Beach Town Council meeting minutes (pgs. 1, 6, 7)

**Attachment E:** Letter of support from Wilmington Regional Association of Realtors

**Attachment A:** Letter requesting the CRC's approval of the Town's Development Line

Dan Wilcox  
*Mayor*

Steve Shuttleworth  
*Council Member*

Gary Doetsch  
*Council Member*



LeAnn Pierce  
*Mayor Pro Tem*

Tom Bridges  
*Council Member*

Michael Cramer  
*Town Manager*

**Town of Carolina Beach**  
1121 N. Lake Park Boulevard  
Carolina Beach, North Carolina 28428  
TEL: (910) 458-2999  
FAX: (910) 458-2997

August 26, 2016

Braxton Davis  
Director, Division of Coastal Management (DCM)

Re: Development Line

The Town of Carolina Beach would like to request to be on the September Coastal Resource Commission meeting to certify our proposed development line. On July 12, 2016 Town Council adopted the development line into the town ordinance. The town has provided DCM with a record of the adoption of the ordinance along with a map depicting the development line. Also, the town has provided a GIS shapefile of the development line to DCM. Thank you for your consideration. Please contact me anytime if you have concerns.

Sincerely,

Michael Cramer  
Town Manager  
Town of Carolina Beach

**Attachment B: Town of Carolina Beach Development Line Ordinance NO.16-1018**



**ORDINANCE NO. 16-1018**

Sec. 40-73. Dimensional standards for the various zoning districts.

(10) No individual or privately owned ~~structure or man-made surface~~ shall encroach over the Carolina Beach ~~Building Line~~ Development Line as recorded in deed book \_\_\_\_\_ page \_\_\_\_\_ in the New Hanover County Register of Deeds. Allowed exceptions are limited to (1) beach crossovers, (2) piers and (3) sand fencing permitted under CAMA regulations.

ARTICLE XVIII. - Sec. 40-548. - Definitions.

Development Line. The line established by the town representing the seaward-most allowable location of oceanfront development.

Building Line. A line established by 1963 Succession law relating to the title of land built up and constructed in the town as a result of erosion control work. The land lying east of the building line is to be granted and conveyed to the Town of Carolina Beach.

Adopted this 12<sup>th</sup> day of July, 2016.

Dan Wilcox, Mayor

Attest: Kimberlee Ward  
Kimberlee Ward, Town Clerk



**Attachment C: Town of Carolina Development Line & Static Vegetation Line Maps**  
**Map 1/7: North End to Clam Shell: (blue line = development line; red-line = static vegetation line)**

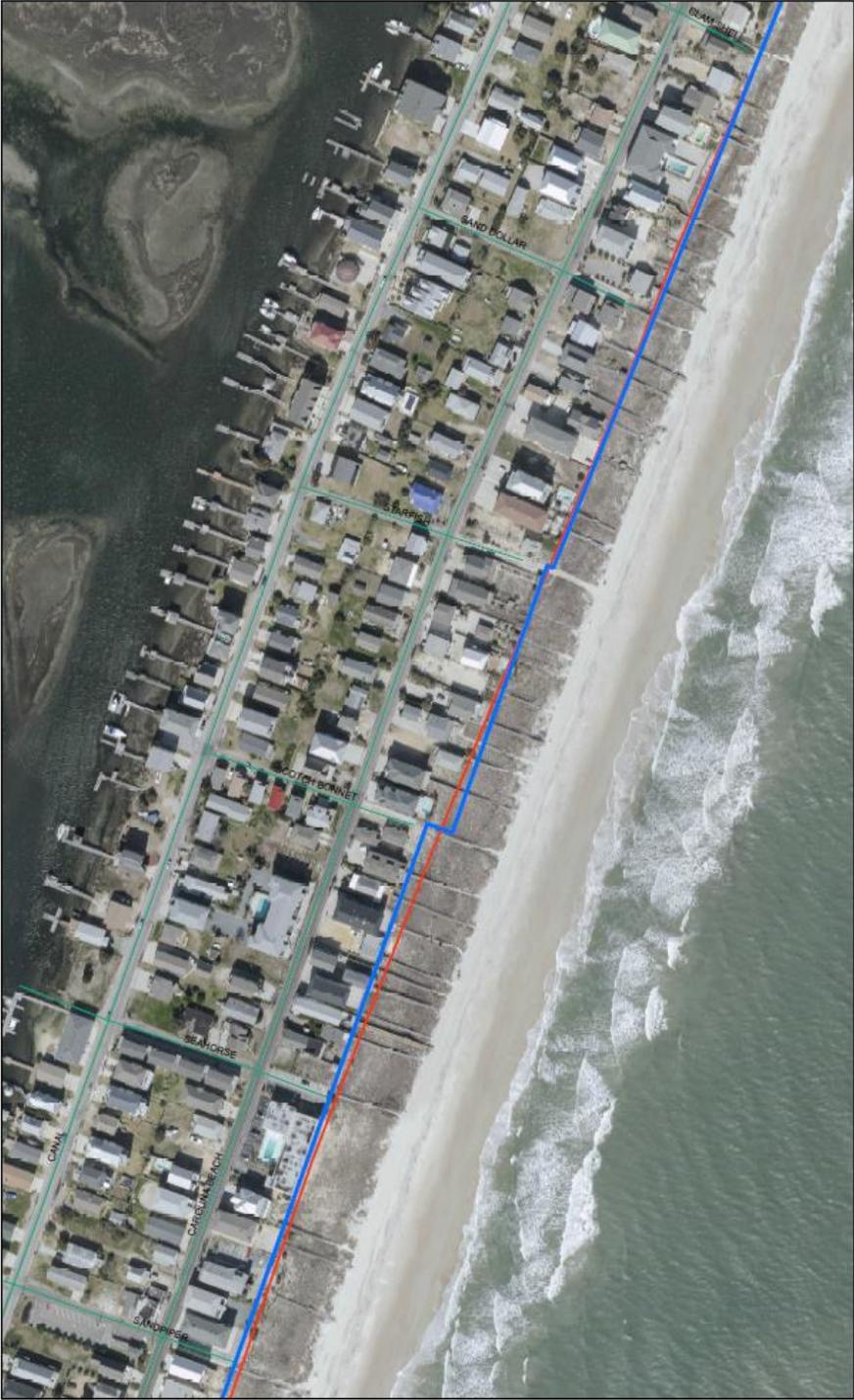
[View Lines on Interactive Map](#)



**Legend**  
— road  
— DEVELOPMENT LINE  
— StaticVeg\_CarolinaBeach\_line\_20100108

1:2,000

Map 2/7: Clam Shell to Sandpiper: (blue line = development line; red-line = static vegetation line)

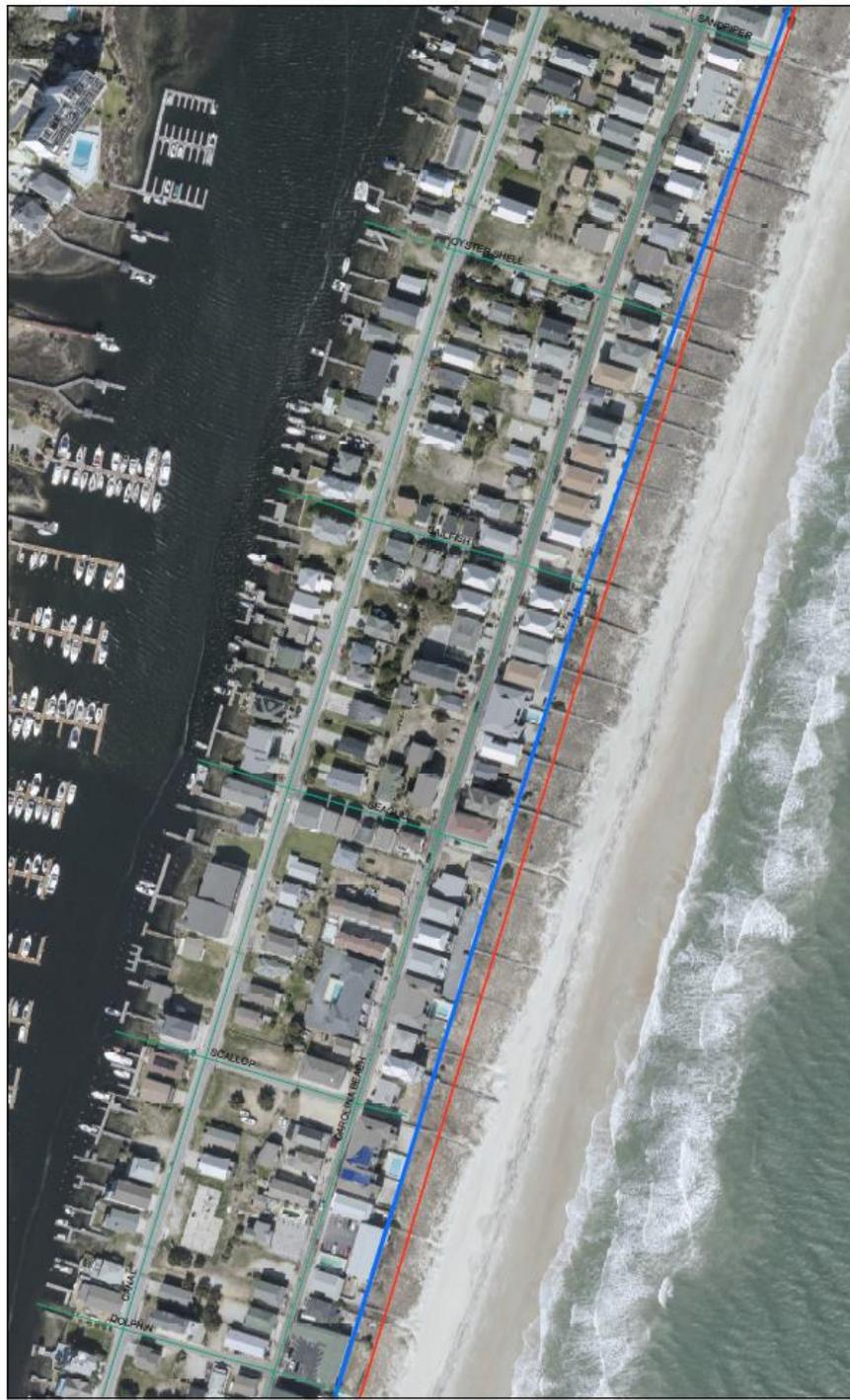


Legend  
— road  
— DEVELOPMENT LINE  
— Static Veg\_CarolinaBeach\_line\_20100108

1:2,000



*Map 3/7: Sandpiper to Dolphin: (blue line = development line; red-line = static vegetation line)*



Legend  
— road  
— DEVELOPMENT LINE  
— StaticVeg\_CarolinaBeach\_line\_20100108

1:2,000



Map 4/7: Dolphin to Hamlet: (blue line = development line; red-line = static vegetation line)



Legend  
— road  
— DEVELOPMENT LINE  
— Staticveg\_CarolinaBeach\_line\_20100108

1:2,000



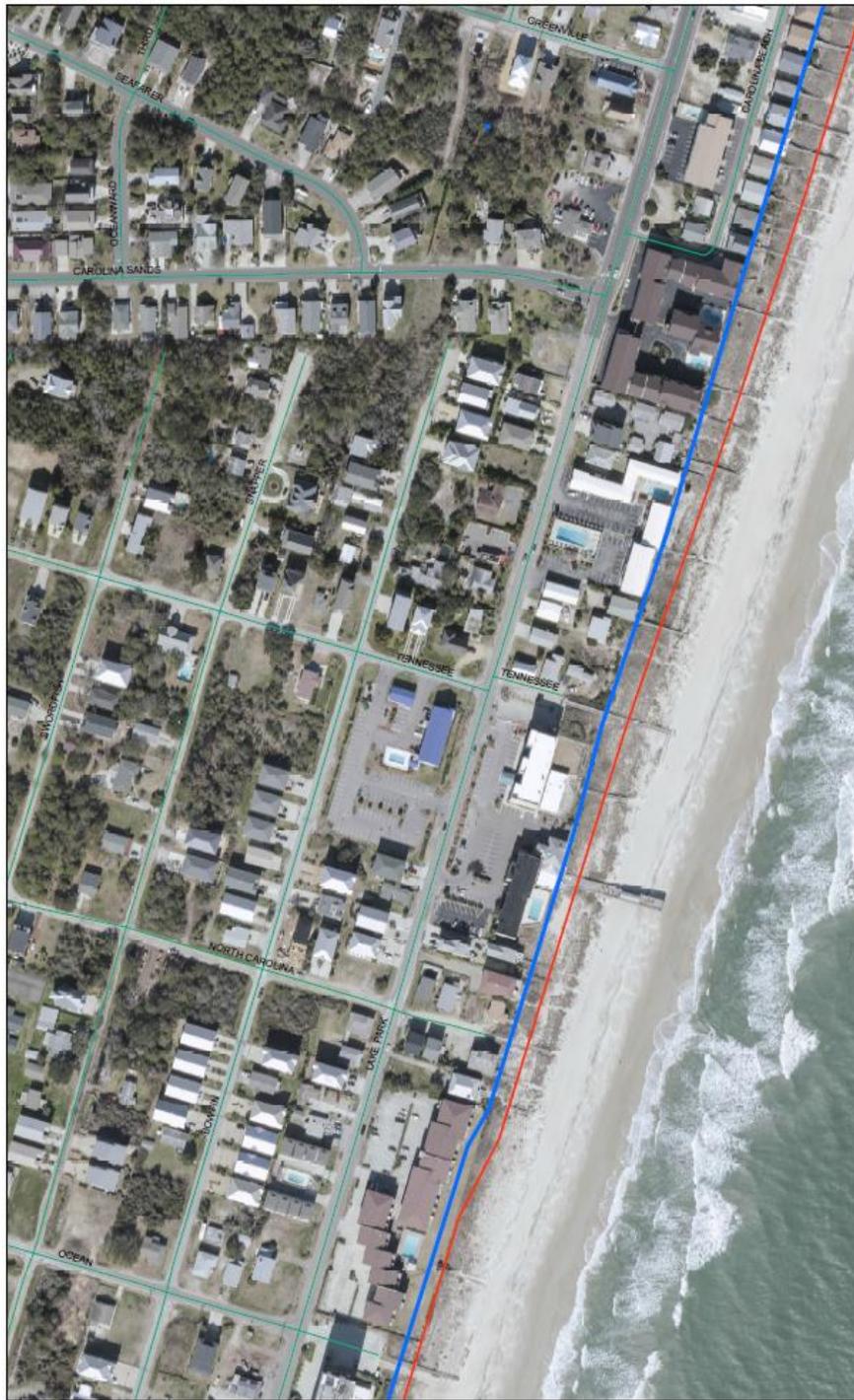
Map 5/7: Hamlet to Greenville: (blue line = development line; red-line = static vegetation line)



1:2,000



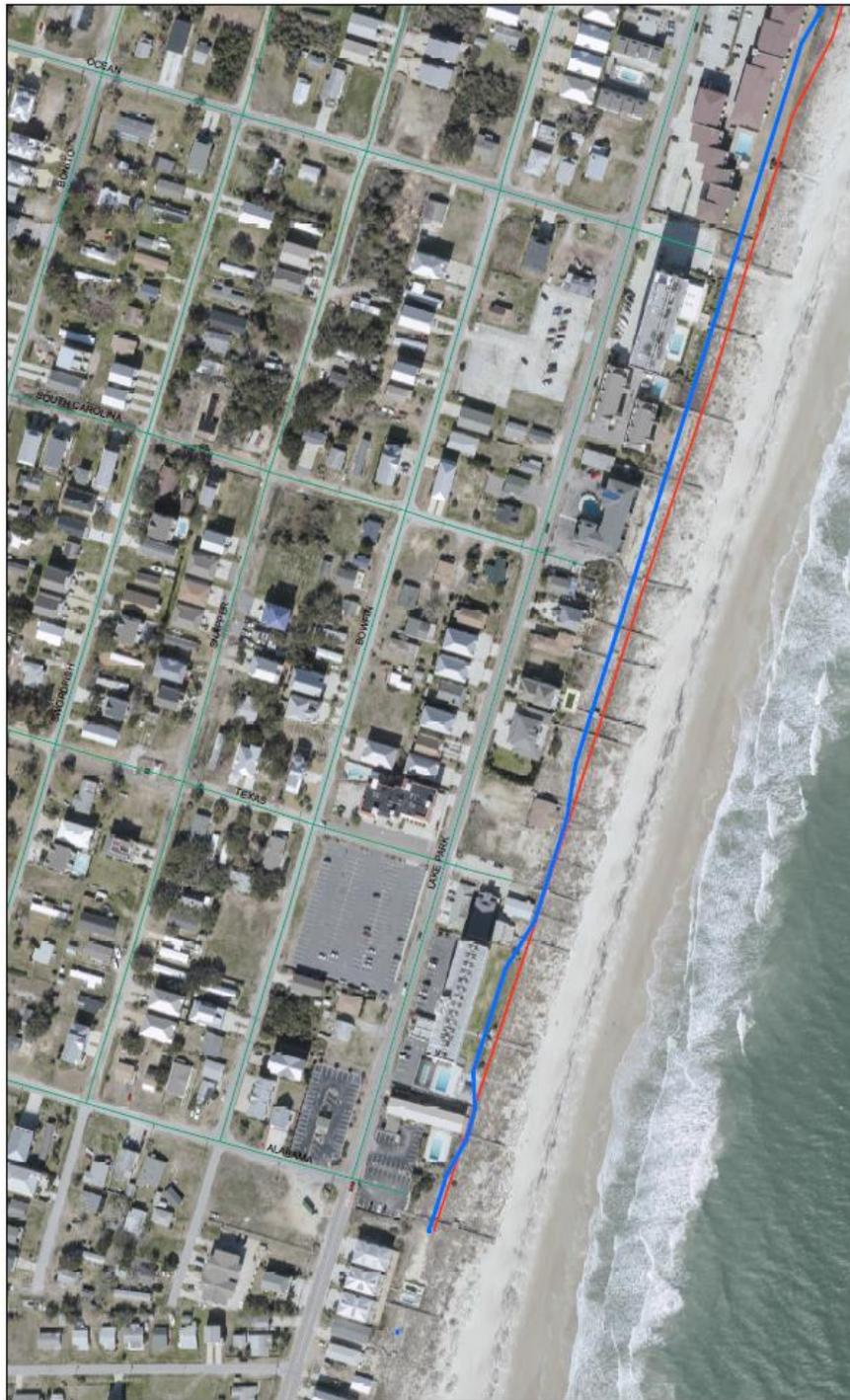
Map 6/7: Greenville to Ocean: (blue line = development line; red-line = static vegetation line)



- Legend
- road
  - DEVELOPMENT LINE
  - StaticVeg\_CarolinaBeach\_line\_20100108

1:2,000

Map 7/7: Ocean to Alabama: (blue line = development line; red-line = static vegetation line)



- Legend
- road
  - DEVELOPMENT LINE
  - StaticVeg\_CarolinaBeach\_line\_20100108

1:2,000



Attachment D: Carolina Beach Town Council Meeting Minutes (pgs. 1, 6, 7)



Final

**CAROLINA BEACH**  
TOWN COUNCIL MEETING  
MINUTES • JULY 12, 2016

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**Council Chambers** **Regular Meeting** **6:30 PM**

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**1121 N. LAKE PARK BLVD.**  
**CAROLINA BEACH, NC 28428**

**1. CALL MEETING TO ORDER WITH INVOCATION BY PASTOR JONATHAN BOWLING WITH CAROLINA BEACH PRESBYTERIAN**

MPT Pierce called the meeting to order as Mayor Wilcox was unable to attend the meeting due to illness. Pastor Jonathan Bowling of the Carolina Beach Presbyterian Church led the invocation followed by the Pledge of Allegiance.

Councilmember Pat Efird was recognized in the audience.

**MPT Pierce made a motion to excuse Mayor Wilcox. Motion carried unanimously.**

| <b>Attendee Name</b> | <b>Title</b>           | <b>Status</b> | <b>Arrived</b> |
|----------------------|------------------------|---------------|----------------|
| Dan Wilcox           | Mayor                  | Excused       |                |
| LeAnn Pierce         | Mayor Pro Tem          | Present       |                |
| Steve Shuttleworth   | Council Member         | Present       |                |
| Tom Bridges          | Council Member         | Present       |                |
| Gary Doetsch         | Council Member         | Present       |                |
| Michael Cramer       | Town Manager           | Present       |                |
| Ed Parvin            | Assistant Town Manager | Present       |                |
| Debbie Hall          | Finance Director       | Present       |                |
| Kim Ward             | Town Clerk             | Present       |                |
| Noel Fox             | Attorney               | Present       |                |

**2. ADOPT THE AGENDA**

**MPT Pierce made a motion to adopt the agenda. Motion carried unanimously.**

**3. SPECIAL PRESENTATIONS**

a. Employee Recognition

*(Requested by Kim Ward, Town Clerk)*

The following employees were recognized:

Lt. Danny McCullough for 10 years of service in the Police Department.

New Police Officer Samantha Macon.

b. Council will recognize the town committee members who served the maximum number of terms on their committees.

*(Requested by Kim Ward, Town Clerk)*

The following committee members were recognized for their volunteer service on town committees:

James Allen served on the Marketing Committee since 2003.

Coastal Resource Commission to include the rock revetment into the grand fathering ordinance they are currently considering.

MPT Pierce opened the public hearing.

Adrian Cox, Public Affairs Director for the Wilmington Regional Association of Realtors, spoke in support of the adoption of zoning amendment and their ongoing work with the CRC.

MPT Pierce closed the public hearing.

**Council Member Shuttleworth made a motion to adopt the development line whereas in accordance with the provisions of the NCGS 160A-383, the Town Council does hereby find and determine that the adoption of the following ordinance amendment is consistent with the goals and objectives of the adopted Land Use Plan and other long range plans and the adoption of Ordinance 16-1018. Motion carried unanimously.**

MPT Pierce asked the town manager to check on the time for the CRC meeting in Wilmington on September 13th to determine whether there would be a conflict with the council meeting on that same date.

d. Public Hearing regarding the Annie Drive Street Assessment Roll

*(Requested by Kim Ward, Town Clerk)*

Ed Parvin presented. The Annie Drive improvement project has been completed and the assessment process configured to move forward with the public hearing tonight and the assessment roll by resolution. Public notification in a local paper is required stating the assessment roll has been confirmed and assessments will be levied 20 days from confirmation (August 3, 2016). At that time, bills will be sent to property owners giving them payment options of paying within 60 days or by October 3rd with a \$500 reduction making a total assessment of \$5,248.53 or payment can be made in 7 annual installments with a 6% interest rate per annum and would add to the total assessment of \$5,748.53 an additional \$2,414.38. There are 15 property owners who would have an equal assessment.

MPT Pierce opened the public hearing.

Herman Musselwhite, 216 Annie Drive, spoke of past problems regarding building of Annie Drive which included the loss of a property stake, destruction of a mailbox and other damage. He requested an itemized statement of costs and is asking for a continuance and determination if numbers are correct.

Jackie Morgan, 217 Annie Drive, he is representing his dad and is the only full-time resident on the street. Mr. Morgan spoke about speeders since the improvement and lack of speed control signs and would like a continuance as well. They did not benefit from the improvements.

MPT Pierce closed the public hearing.

Michael Cramer said the request for accounting from Mr. Musselwhite is news to him. He saw the email listing issues from Mr. Musselwhite this morning which has been assigned to Gil DuBois to address. He has not had any contact with the property owners other than that. Signage will have to be adopted by council. Adding stop signs on Annie Drive is an issue to be addressed at the July 26th workshop.

Council Member Shuttleworth asked that either Michael or Ed get with Gil or someone from his office to sit down with Mr. Musselwhite with regard to accounting and damage and previous payment.

Michael Cramer said this does not include anything for water and sewer, only streets and stormwater.

Noel Fox - residents have a 10 day appeal period after confirmation of the assessment roll, which would delay 2 months to confirm the assessment roll. The project came under budget and there have been more than 1 opportunity for council and citizens to question the costs that were forecast for the project. The preliminary roll was adopted previously. Mr. Musselwhite does have the ability to file a notice of appeal.

Ed Parvin said we did not charge for water and sewer, engineering and administrative costs and all costs for Island Mimosa. By statute residents were charged a lot less than could have been.

Noel Fox explained how to file: 10 days after confirmation of the assessment roll to file a notice of appeal with the appropriate division of the New Hanover County Superior Court or District Court, whichever the attorney determines.

Michael Cramer said he will check on adding speed signs.

**MPT Pierce made a motion to adopt Resolution No. 16-2133 confirming the assessment roll and levying assessments on Annie Drive. Motion carried unanimously.**

**7. CONSENT AGENDA**

**Council Member Doetsch made a motion to approve the consent agenda. Motion carried unanimously.**

The following items were approved under the consent agenda:

Setting a public hearing for August 9, 2016 to consider amending Chapter 40, Article III, Section 40-172 Table of Permitted uses; Article V Off-street parking and loading requirements; Article IX Development standards for particular uses, Sec. 40-261 and Article XVIII.

Setting a public hearing for August 9, 2016 to consider amending Chapter 40 Article III, Sec 40-172 Table of Permitted Uses; Article V Off-street parking and loading requirements; Article VI Landscaping and Development Specifications Standards Sec 40-176 Buffer yard landscaping; Article IX Development standards for particular uses, Sec. 40-261 and Article XVIII Definitions.

Setting a public hearing for August 9, 2016 to review Chapter 4 Animals and Fowl Sec. 4-2. - Harboring and keeping of animals and fowl to consider amending to allow for chickens within the town.

Approval of the Capital Project Budget Ordinances - 15-990, 16-1011, 16-1012, 16-1013, 16-1014, 16-1015, 16-1016, 14-931 (amended).

Budget amendments and transfers as presented by the finance director.

Adoption of Resolution 16-2131 Volunteer Firefighter Health Insurance.

**Attachment E:** Letter of Support from Wilmington Regional Association of Realtors



WILMINGTON  
REGIONAL  
ASSOCIATION *of*  
REALTORS®

**WRAR OFFICERS**

**President**

Don Harris, GRI, SRES

**President-Elect**

Neal Johnson, CNE, CRB, GRI

**Vice President**

Fred Gainey, SFR, WHS

**Past President**

Sherri Pickard, CDPE, GRI, SFR

**RCASENC**

Hank Adams, President

P. J. Doherty, CCIM, President-Elect

**WRAR DIRECTORS**

**Term Expires 2016**

Chris Livengood

Patrice Willetts, ABR, GRI, SRES

Reid Butler, Duplin-Sampson Council

Debbie Evans, GRI, Scotland Council

**Term Expires 2017**

Jeff Lesley

Lori Speight

Sherri Pridgen, ABR, GRI, SRES

**Term Expires 2018**

Gloria Green, ABR, SFR, WHS, MRP

Debbie Lariviere

Trey Wallace

**Chief Executive Officer**

Jerry Panz, CAE, ePRO, RCE

**Organized**

February 16, 1922

**Chartered**

June 2, 1924

**Location**

1826 Sir Tyler Drive, Suite 100

Wilmington, NC 28405

Phone (910) 762-7400

Fax (910) 762-9860

August 15, 2016

Chairman Frank Gorham  
**Coastal Resources Commission**  
400 Commerce Avenue  
Morehead City, NC 28557

**RE: Support for the Town of Carolina Beach  
Request for a Development Line**

Chairman Gorham & Commissioners:

On behalf of 2,300 members in the Cape Fear Region, we support the Town of Carolina Beach's request for a Development Line. The Town has shown an on-going commitment to beach re-nourishment and has a competent staff that has a solid understanding of coastal management issues.

We appreciate the Commission's efforts to provide this local option to communities and are hopeful you will approve this request.

Cordially,

*Ea Ruth*

Ea Ruth  
Governmental Affairs Chair

Shane Johnson  
COO



Coastal Management  
ENVIRONMENTAL QUALITY

PAT MCCRORY  
*Governor*

DONALD R. VAN DER VAART  
*Secretary*

BRAXTON DAVIS  
*Director*

## CRC Information Item

### MEMORANDUM

**TO:** Coastal Resource Commission

**FROM:** Rachel Love-Adrick, District Planner  
Division of Coastal Management

**SUBJECT:** Morehead City Core Land Use Plan Implementation Status Report

**DATE:** July 15, 2016

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#### Overview

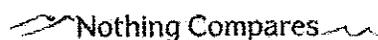
The Morehead City Core Land Use Plan was certified on September 28, 2007. The attached implementation status report outlines how the city has used and locally implemented the polices within the plan.

#### The following must be included in the report:

- All local, state, federal, and joint actions that have been undertaken successfully to implement its certified CAMA land use plan
- Any actions that have been delayed and the reasons for the delays
- Any unforeseen land use issues that have arisen since certification of the CAMA land use plan
- Consistency of existing land use and development ordinances with current CAMA land use plan policies
- Current policies that create desired land use patterns and protection of natural systems.

#### Discussion

The implementation status report does not require approval by the CRC, but must be made available to the public and forwarded to DCM (7L. 0511 Required Implementation Status Reports). Staff has reviewed the report and finds that the county has met the minimum requirements for the report.





## **Town of Morehead City Core Land Use Plan Implementation Status Report**

This report was prepared on March 7, 2016 and is provided in accordance with 15A NCAC 07B .0804. The report is based on identified implementation actions which meet the CRC's Management Topic goals and objectives, as indicated in the action plan pursuant to Rule 15A NCAC 07B .0702(e)(3).

The Morehead City Core Land Use Plan was adopted on August 14, 2007 and was certified by the Coastal Resources Commission on September 28, 2007. Since its adoption and certification, no issues have arisen which have resulted in any delay of action resulting from the Core Land Use Plan. The annexation of several lots on Radio Island into Morehead City's jurisdiction has resulted in an unforeseen circumstance. However, this has provided an opportunity for staff to review both Carteret County's Land Use Plan and Morehead City's Core Land Use Plan when evaluating consistency of a proposed rezoning or project.

Following is the implementation status of the identified public access, land use compatibility, infrastructure carrying capacity, natural hazard areas, and water quality management goal policies as outlined in 15A NCAC 07B .0702(d)(2).

### **Public Access:**

*Policy 1 – It is the policy of the Town of Morehead City to ensure a variety of opportunities for access to public trust waters to all segments of the community, including persons with disabilities.*

From 2007 to date, staff has conducted a number of activities in support of providing public access opportunities to all segments of the community. These activities include but were not limited to:

- Continued to require that a waterfront access area (or fee in lieu of to establish or improve a waterfront access area) be provided by developers of all new subdivisions located along the waterfront.
- With North Carolina Public Beach Access funds, acquired property adjacent to the North 7<sup>th</sup> Street street end, cleaned up the street end and the adjacent acquired property, and constructed a floating dock, gazebo, and parking area.
- North Carolina Public Beach Access funds, installed kayak racks and a parking rack at the South 11<sup>th</sup> Street street end.
- With North Carolina Public Beach and Coastal Waterfront Access Program funds, obtained the "jib" property on the Morehead City waterfront.

- Requested grant funding through the Public Beach and Coastal Waterfront Access Program to improve property in Blair Farms subdivision with a dock, walking trail, and bathhouse. However, the grant application was not approved and the project did not move forward.
- With North Carolina Coastal Recreational Fishing License Grant funding, constructed a fish pier extension.

*Policy 2 – Morehead City supports the state’s shoreline access policies and the goals and recommendations set forth in the town’s Waterfront Access Plan. The town will conform to CAMA and other state and federal environmental regulations affecting the development of estuarine access areas.*

- The Town continues to improve and maintain the local and neighborhood public access sites identified in the Waterfront Access Plan.
- The Town continues to operate the City’s Coastal Area Management Local Permitting Office program to include issuance of permits, exemptions, and violations for development activities seventy-five (75) feet landward of the mean high water mark.
- The Town requires major and general CAMA permits and Army Corps of Engineer permits or exclusions be obtained and provided, when applicable, as part of the major subdivision process.

*Policy 3 – The town will continue to ensure that existing water access points, including street ends and alleys, are not closed.*

- The town continues to maintain existing water access points, including those located at street ends.
- The town maintains its alley closing policy which prohibits the closing of alleys which provide water access.

**Land Use Compatibility:**

*Policy 1 – It is the policy of the Town of Morehead City to ensure that land use and development activities provide a balance between economic development needs and protection of natural resources and fragile environments.*

- Morehead City continues to enforce its Coastal Area Management and Flood Damage Prevention ordinances.
- When undertaking zoning and other studies, the Town considers the need to balance economic needs and protection of natural resources and fragile environments as identified in the Core Land Use Plan.

*Policy 2 – Morehead City will support growth and development at the densities specified in the Future Land Use Map land classifications as delineated in Section 4.5 of the Morehead City Core Land Use Plan.*

- Morehead City evaluates each rezoning and text amendment and provides information to the Planning Board and Council concerning the evaluation. In addition, since 2008 and 2014, respectively, formal resolutions of land use consistency have been adopted along with each Planning Board recommendation and Council action.

*Policy 3 – The town will promote the continued low-density residential development character of areas located on the fringes of the extraterritorial jurisdiction and in locations adjacent to identified fragile areas.*

- The Morehead City Unified Development Ordinance continues to require larger lot sizes for lots located within the extraterritorial jurisdiction than may otherwise be required based upon the minimum lot size of the zoning classification.
- The Town continues to observe and enforce buffers and maximum impervious surface requirements for the fragile areas which are located within seventy-five (75) feet of the mean high water mark.

#### **Infrastructure Carrying Capacity:**

*Policy 1 – It is the policy of the Town of Morehead City to coordinate the establishment of service area boundaries for existing and future water and sewer infrastructure with Carteret County, adjoining municipalities, and other utility providers.*

- Four utilities provide water/sewer infrastructure in close proximity to the Morehead City corporate limits: Beaufort; Newport; West Carteret Water Corporation and Utilities Incorporated. The Morehead City Public Services Department has established service areas with neighboring providers and is working to establishing interconnectivity so water service is never lost. Newport and Morehead City have interconnected a 12-inch water main along Highway 70.

*Policy 2 – It is the policy of the Town of Morehead City to ensure that public infrastructure systems are sized, located, and managed in accordance with the need to protect or restore natural resources and fragile environments.*

- In order to avoid parallel utility lines, Morehead City has paid for upgrading utilities (line size, lift stations, etc.) when developers construct projects outside the current service area. This process requires a single disturbance of natural and fragile environments. The City is also retrofitting a sewer force main along North 20<sup>th</sup> Street which is currently located above Calico Creek. Once the directional bore under Calico Creek is completed, the sewer force main will be relocated underground.

*Policy 3 – Public water and sewer will be required for all new development occurring within the town's corporate limits in areas in which municipal sewer service is available or can be made readily available.*

- Morehead City prohibits development within the corporate limits without tying into the water/sewer utility system.

*Policy 4 – The town supports the use of water conservation practices and groundwater protection measures in order to prevent lowering the water table, to limit the quantity of wastewater generated, and to protect the quality of water.*

- Morehead City completed a meter project upgrade which helps locate water loss from customers and allows almost instantaneous notification of the account holder. In addition, a public information program has been established to educate customers on water conservation practices. The City has upgraded and installed three new water plants with up-to-date technology which actively monitors water quantity as well as water quality. It also monitors the amount of water being drawn down from the aquifer.

*Policy 5 – Package treatment plants may be permitted in areas in which municipal sewer service is currently unavailable and where the town has determined that the municipal sewer system is not likely to be extended in the future, provided that they conform to state permitting requirements and are designed for compatibility with the Morehead City sewer system in the event of untimely tying into the town’s system.*

- No package plants have been approved.

*Policy 6 – The town will encourage land development in areas that currently have the necessary support infrastructure (water, sewer, streets, etc.) or where these services can readily be made available. Land development will be guided to areas that have public water and sewer services and an adequate street system to accommodate increased land development.*

- Since 2007, there have been no subdivision lots to receive final approval without water/sewer support infrastructure; whereas, the number of subdivision lots which received final approval and which were to be supported by water/sewer totaled two hundred and thirty-two (232).

#### **Natural Hazard Areas:**

*Policy 1 – It is the policy of Morehead City to conserve the natural resources and fragile environments that provide protection from such natural hazards as floods and storm surges.*

- In 2009, staff completed its update of the Morehead City Hazard Mitigation Plan. In 2015, the Pamlico Sound Regional Hazard Mitigation Plan, in which Morehead City is included, was completed.
- Morehead City continues to enforce and improve its floodplain management program through regulation enforcement and outreach.
- Morehead City is currently working to identify areas in which to maintain or improve its Community Rating System (CRS) classification which enhances the floodplain management program while simultaneously affording floodplain residents a reduction in flood insurance premiums.

*Policy 2 – It is the policy of the Town of Morehead City to minimize the threat to life, property, and natural resources that may result from land use and development within or adjacent to identified natural hazard areas.*

- Staff provides information on the special flood hazards areas and areas of environmental concern to inquirers when they request property information.
- The Town enforces the building code and conducts two inspections involving the elevation of structures and the number of flood openings.
- The Town enforces CAMA regulations and limits what may be built in the thirty (30) foot buffers and the amount of impervious coverage in the seventy-five (75) foot areas of environmental concern.

*Policy 3 – The Town will avoid zoning areas located in V-flood zones for high density residential or intensive nonresidential use.*

- Since the adoption of the Morehead City Core Land Use Plan in 2007, no areas within the VE special flood hazard area have been rezoned to high intensity residential or non-residential use.

*Policy 4 – The Based upon the availability of federal and state grant funds, land acquisition programs will be utilized in the most hazardous areas to minimize future damage and loss of life.*

- In 2009, Morehead City staff submitted an application for federal funding under the Hazard Mitigation Grant Program to elevate the lift station at South Lockhart Street above the base flood elevation. The grant request was not approved.
- In 2013 and 2014, Morehead City staff submitted an application for federal Flood Mitigation Assistance (FMA) funding to mitigate repetitive loss properties within its floodplain. Floodplain management staff did not receive notification of funding availability in 2015; however, staff will continue to seek funding in the future.

*Policy 5 – If any portion of the Town’s public infrastructure is significantly damaged by a major storm, consideration will be given to the feasibility of relocating or modifying the affected facilities to prevent the reoccurrence of storm damage.*

- Since the adoption of the Morehead City Core Land Use Plan in 2007, no major storm damage has impacted the town’s infrastructure.

#### **Water Quality:**

*Policy 1 – It is the policy of the Town of Morehead City to establish land use and development policies to help ensure that water quality in coastal wetlands, rivers, streams, and estuaries is maintained if not impaired and improved if impaired.*

- Morehead City maintains its Flood Damage Prevention and Coastal Area Management ordinances.
- Morehead City evaluates each rezoning and text amendment and provides information to the Planning Board and Council concerning the evaluation. In addition, since 2008 and 2014, respectively, formal resolutions of land use consistency have been adopted along with each Planning Board recommendation and Council action.
- Through a subcommittee of the Planning Board and Council, the Morehead City Unified Development Ordinance open space requirements were revised for multifamily, planned developments, and subdivisions in 2007. A minimum 28% of multifamily developments must be preserved as open space, and developers of major subdivisions are required to provide 1,200 square feet of open space per every subdivision lot or provide a fee in lieu of dedication to fund a new or improved open space area.
- With NCDOT Bicycle and Pedestrian Grant funding, obtained funding and developed pedestrian and bicycle plans to promote environmentally-sensitive alternative transportation.
- With Safe Routes to School funding, constructed a sidewalk in the vicinity of Morehead Middle School to promote environmentally-sensitive alternative transportation.

*Policy 2 – Within the corporate limits, extension of water and sewer to areas in which poor soil conditions create septic field problems shall have the highest priority when the town undertakes system extensions.*

- Property within the corporate limits is required to tie into water and sewer. No involuntary annexations have occurred since 2007.

*Policy 3 – The town encourages voluntary annexation requests to facilitate adequate wastewater disposal in order to prevent the installation of additional septic systems and to improve environmental conditions, particularly in areas with poor soil conditions for subsurface sewage disposal systems.*

- Since 2007, the Morehead City Council has approved a total of forty-two (42) annexations totaling approximately 836 acres.

*Policy 4 – Morehead City will promote the use of best available management practices to minimize the degradation of water quality resulting from stormwater runoff; examples of these practices include using pervious or semi-pervious materials for driveways and walks, retaining natural vegetation along marsh and waterfront areas, and allowing stormwater to percolate into the ground rather than discharging it directly to coastal waters.*

- Morehead City promotes best management stormwater practices and requires state stormwater and sedimentation and erosion control permits with submittal of applications for major subdivisions, multifamily developments, commercial developments, and other projects for which the development area exceeds one acre or the total built upon area is 10,000 square feet or greater.

*Policy 5 – Morehead City will ensure that developments locating adjacent to coastal waters make every effort to mitigate any adverse effects on riverine and estuarine water quality and on primary nursery and fish habitat areas.*

- Morehead City operates a CAMA Local Permitting Officer program to ensure protection of riverine and estuarine water quality as well a primary nursery and fish habitat areas. Morehead City requires applicable state and federal permits and encourages developers to adhere to Marine Fisheries restrictions concerning primary nursery and fish habitat areas.

*Policy 6 – The Town of Morehead City supports retaining existing vegetation, creating buffers, and limiting impervious surface areas in new commercial developments to assist with managing stormwater runoff.*

- In 2008, a landscaping subcommittee of the Planning Board and Council developed a new landscape ordinance which promotes the use of indigenous plants over invasive species; which requires buffers, landscape strips, and interior parking planters be provided in order to limit the total impervious surface area allowed in commercial development; which provides additional credit for retaining old growth trees; and which provides an alternative landscaping mechanism for utilizing existing natural vegetation in lieu of removing vegetation and planting new trees.
- Morehead City requires a state stormwater permit be submitted with application for commercial development if the development area exceeds one acre, if the built upon area exceeds 10,000 square feet, or when a CAMA General Permit is required.



PAT MCCRORY  
*Governor*

DONALD R. VAN DER VAART  
*Secretary*

BRAXTON DAVIS  
*Director*

**MEMORANDUM**

**CRC – Information Only**

**TO:** Coastal Resources Commission

**FROM:** Charlan Owens, AICP, DCM Elizabeth City District Planner

**SUBJECT:** Chowan County and Town of Edenton Joint Land Use Plan (LUP) - Chowan County Implementation Status Report

**DATE:** August 30, 2016

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**Background**

Local governments submit an implementation status report every two (2) years following the date of LUP initial certification per the following:

**15A NCAC 07B .0804 REQUIRED PERIODIC IMPLEMENTATION STATUS REPORTS**

Jurisdictions with a locally adopted and certified land use plan shall submit an Implementation Status Report to the Division of Coastal Management every two years from the date of initial certification by the CRC. This report shall be based on implementation actions that meet the CRC’s Management Topic goals and objectives, as indicated in the action plan pursuant to Rule 07B .0702(e)(3) of this Subchapter. The Implementation Status Report shall also identify:

- (1) All local, state, federal, and joint actions that have been undertaken successfully to implement its certified land use plan;
- (2) Any actions that have been delayed and the reasons for the delays;
- (3) Any unforeseen land use issues that have arisen since certification of the land use plan; and
- (4) Consistency of existing land use and development ordinances with current land use plan policies.

The Chowan County’s implementation status report is available on DCM’s Land Use Planning web page at:

<https://deq.nc.gov/about/divisions/coastal-management/coastal-management-land-use-planning/certified-lups/chowan-county>

It is not provided in the CRC packet.

**Discussion**

The implementation status report does not require approval by the CRC. The report is based on the LUP Action Plan and identifies activities that the local government has undertaken in support of the LUP’s policies and implementation actions. Staff has reviewed the submitted report and finds that the community has met the minimum requirements.

