



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

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Director

CRC-18-01

January 31, 2018

MEMORANDUM

TO: Coastal Resources Commission, and
FROM: Tancred Miller
SUBJECT: “Dune Rules” Fiscal Analysis

The CRC began rulemaking to amend its administrative rules 15A NCAC 07H .0308, and 15A NCAC 07K .0103, in order to give flexibility to the ways that oceanfront sand dunes are maintained and managed, and that structural beach accessways are constructed.

Staff has prepared the required fiscal analysis and it has been reviewed by the Office of State Budget and Management (OSBM). Staff’s analysis, which is attached, did not find any fiscal impacts. OSBM also determined the proposed rule amendments have little to no impact on state or local governments, and no substantial economic impact.

The CRC must approve the fiscal analysis before the rule can advance to publication in the N.C. Register for public input. If the CRC approves of the analysis at your February meeting, it will be published for public comment and a public hearing. The earliest possible effective date will be September 1, 2018.

Fiscal Analysis

“Dune Rules”

15A NCAC 07H .0308 Specific Use Standards for Ocean Hazard Areas
15A NCAC 07K .0103 Maintenance and Repair

Prepared by

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January 22, 2018

Summary

Agency	DEQ, Division of Coastal Management (DCM) Coastal Resources Commission (CRC)
Title of the Proposed Rule	1. Specific Use Standards for Ocean Hazard Areas 2. Maintenance and Repair
Citation	1. 15A NCAC 07H .0308 2. 15A NCAC 07K .0103
Description of the Proposed Rule	7H .0308 contains guidelines for dune establishment and stabilization, and the construction of structural accessways in the Ocean Hazard Area of Environmental Concern (AEC). 7K .0103 codifies activities under G.S. 113A-103(5)(b)(5) as exempt from the permitting requirements of the Coastal Area Management Act (CAMA), including “maintenance” and “repair” of damage caused by the elements, and the creation of protective sand dunes to prevent damage to imminently threatened structures.
Agency Contact	Tancred Miller Coastal and Ocean Policy Manager Tancred.Miller@ncdenr.gov (252) 808-2808
Authority	G.S. 113A-103(5)(b)(5); 113A-107(a); 113A-107(b); 113A-113(b)(6)a.,b.,d.; 113A-115.1; 113A-118(a); 113A-124.
Necessity	The CRC proposes to amend its administrative rules in order to give necessary and beneficial flexibility to the ways that oceanfront sand dunes are maintained and managed; and that structural beach accessways are constructed.
Fiscal Impact Summary	State government: None Local government: None Substantial impact: No Federal government: None Private citizens: Potential, indirect benefit

Introduction and Purpose

Due to the importance of sand dunes as wildlife habitat, protective natural infrastructure, and sand “banks” that provide natural replenishment to eroding beaches, CAMA includes the alteration or removal of sand dunes in activities that are considered “development,” and therefore subject to the regulatory jurisdiction of the CRC.

The CRC is proposing a number of amendments to these rules in order to provide flexibility and relief to regulated parties, without compromising the integrity of the dune system or the protection and habitat values that it provides.

DCM anticipates the effective date of these rule amendments to be September 1, 2018.

Description of the Proposed Rules

Oceanfront dunes provide protection from storms and are a vital part of the Ocean Hazard AEC. One of the goals of the CAMA is to provide a management system capable of preserving and managing the natural ecological conditions of the barrier dune system (and the beaches) to safeguard and perpetuate their natural productivity.

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

If a Primary Dune exists in the AEC on or landward of the lot where the development is proposed the development is required to be landward of the crest of the primary dune, the ocean hazard setback, or development line, whichever is farthest from vegetation line, static vegetation line, or measurement line, whichever is applicable. For existing lots (platted by June 1, 1979), however, where setting the development landward of the crest of the primary dune would preclude any practical use of the lot, development may be located oceanward of the primary dune. In such cases, the development may be located landward of the ocean hazard setback but is not to be located on or oceanward of a frontal dune or the development line. If no primary dune exists, but a frontal dune does exist in the AEC on or landward of the lot where the development is proposed, the development is to be set landward of the frontal dune, ocean hazard setback, or development line, whichever is farthest from the vegetation line, static vegetation line, or measurement line, whichever is applicable. If neither a primary nor frontal dune exists in the AEC on or landward of the lot where development is proposed, the structure must be sited landward of the ocean hazard setback or development line, whichever is more restrictive.

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

The original intent of the CRC's dune rules (1981) was to address the practice of dune creation and set standards to require following natural dune alignment and configuration as much as possible, and also to avoid steep "pushed-up" dikes on the oceanfront. The CRC also intended to prevent the creation of artificial dunes out on the "storm beach" that would not last very long, and create a false sense of security. The CRC intended to restrict the building of primary and frontal dunes on the beachfront. From reviewing the CRC meeting minutes and materials in the early days of the coastal program, it seems there was concern by the CRC that allowing the pushing dunes out on the beach (past the frontal dune) would lead to an abuse of the setback rules and create a false sense of permanence particularly in inlet areas. The CRC also did not want other dunes within the AEC to be destroyed by being used as a sand supply for additional dunes.

In 1992, DCM staff realized that strict application of the rules restricting the pushing of sand oceanward was impractical as some degree of this activity was necessary to accommodate normal development of oceanfront lots, and some degree of land leveling should be allowed. To address these issues, the rule was

amended to allow the redistribution of sand “held in storage” in other dunes within the AEC, but no farther oceanward than the crest of the primary dune or landward toe of the frontal dune.

More recently, DCM staff has observed that shifting sand blown by hurricanes, tropical storms and northeasters has been covering decks, driveways, swimming pools, houses and buildings, both on the oceanfront as well as landward of the oceanfront area. This situation can create challenges for some property owners trying to remove sand from around their structures while staying compliance with the CRC’s dune protection rules, since sand can currently only be moved to the crest of the primary dune, if present, or the landward toe of the frontal dune. Additionally, property owners are looking for ways to enhance the barrier dune system while being able to utilize and enjoy and utilize their property, including the redistribution of sand on individual lots.

The proposed amendments relate to “Dune Establishment and Stabilization,” “Structural Accessways,” and “Maintenance and Repairs.” The most significant proposed changes are as follows:

(1) ***Require sand to remain on the lot to the maximum extent practicable;***

Currently, sand may be distributed provided it stays within the AEC, and is not placed farther oceanward than the crest of a primary dune, or landward toe of a frontal dune. The rule is being amended to require that sand stay on the lot or tract of land that is being developed, to the maximum extent practicable. This amendment is intended to prevent dunes from being weakened by removing sand from one lot and placing it where it might not be as beneficial.

(2) ***Allow redistribution of sand to the crest of a frontal dune;***

Currently, sand may be distributed on a lot or tract of land to the landward toe of a frontal dune. The proposed amendment will facilitate dune strengthening by allowing dune widening in a landward direction.

(3) ***Allow removal of sand from around structures provided it remains in the Ocean Hazard AEC;***

Property owners who have sand naturally transported onto their property by wind or waves have been allowed to remove that sand, as long as it is placed no farther oceanward than the crest of the primary dune, if present, or the landward toe of the frontal dune. The proposed amendment will allow placement to the crest of the frontal dune if there is no frontal dune present, which can lead to wider, stronger dunes.

(4) ***Allow accessways to cross frontal dunes and extend up to six feet past the vegetation line;***

Wooden walkways that cross over dunes to provide access to the beach must currently be built no farther oceanward than the first line of stable and natural vegetation. This limitation has created access difficulties in situations where the dune migrates oceanward and covers the accessway. The proposed changes will allow accessways to be built up to six feet past the vegetation line to provide unobstructed access, provided there is no interference with public trust rights or emergency access along the beach.

(5) ***Preserve the volume of dunes while allowing access, and expand materials allowed for “Hatteras ramps.”***

“Hatteras ramps” are structural accessways, typically made of wood, that provide off-road vehicle access over dunes to the beach. Hatteras ramps are allowed to limit damage to dunes while allowing recreational and emergency driving access. The proposed amendment increases the allowable width of Hatteras ramps from 10 feet to 15 feet, and will allow ramps to be built using materials other than wood, subject to DCM approval.

FISCAL IMPACTS

Since the proposed changes are all expansions of allowable development activities that can be voluntarily undertaken, DCM does not believe that any regulated party will incur additional costs as a result of this action.

Private Property Owners

Private property owners are expected to experience no increased costs, and only non-monetary benefits from the proposed rule changes. Property owners will have more flexibility in redistributing sand on their lots, will be able to increase the volume and strength of their frontal dunes, and will be able to extend their dune crossovers up to six feet waterward of the dune vegetation line. If a property owner chooses to take advantage of this increased flexibility, they could potentially gain some storm protection benefit, but the economic value of these benefits cannot be quantified without complex modeling of the protective ability of wider frontal dunes under a series design storm conditions. DCM does not have the ability to perform this modeling analysis.

NC Department of Transportation

Pursuant to G.S. 150B-21.4, the agency reports that the proposed amendments will not affect environmental permitting for the NC Department of Transportation (NCDOT). NCDOT is often required to clear roads of sand that washes onto roadways during storm events; however, DCM regards this as maintenance work as long as the sand is placed within the road right-of-way. In storms where extreme wave action damages or destroys dunes, NCDOT currently is currently required to get a CAMA permit for dune reconstruction, and this requirement will remain unchanged. NCDOT therefore is not expected to experience any change in permitting or any negative fiscal impacts associated with the proposed rule amendments.

Local Government

The proposed rule changes are expansions of allowable activities, local governments will not see any increased costs of compliance, or any increased need to apply for permits. As such, the proposed amendments are not expected to affect local government expenditures.

Division of Coastal Management

The proposed rule changes do not change the types of activities that are subject to CAMA permitting, nor will they affect the number of permit applications submitted for development. The changes simply increase the scope of what is currently allowable. DCM does not therefore anticipate any fiscal impacts.

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

(a) Ocean Shoreline Erosion Control Activities:

- (1) Use Standards Applicable to all Erosion Control Activities:
 - (A) All oceanfront erosion response activities shall be consistent with the general policy statements in 15A NCAC 07M .0200.
 - (B) Permanent erosion control structures may cause significant adverse impacts on the value and enjoyment of adjacent properties or public access to and use of the ocean beach, and, therefore, are prohibited. Such structures include bulkheads, seawalls, revetments, jetties, groins and breakwaters.
 - (C) Rules concerning the use of oceanfront erosion response measures apply to all oceanfront properties without regard to the size of the structure on the property or the date of its construction.
 - (D) All permitted oceanfront erosion response projects, other than beach bulldozing and temporary placement of sandbag structures, shall demonstrate sound engineering for their planned purpose.
 - (E) Shoreline erosion response projects shall not be constructed in beach or estuarine areas that sustain substantial habitat for fish and wildlife species, as identified by natural resource agencies during project review, unless mitigation measures are incorporated into project design, as set forth in Rule .0306(i) of this Section.
 - (F) Project construction shall be timed to minimize adverse effects on biological activity.
 - (G) Prior to completing any erosion response project, all exposed remnants of or debris from failed erosion control structures must be removed by the permittee.
 - (H) Erosion control structures that would otherwise be prohibited by these standards may be permitted on finding by the Division that:
 - (i) the erosion control structure is necessary to protect a bridge which provides the only existing road access on a barrier island, that is vital to public safety, and is imminently threatened by erosion as defined in provision (a)(2)(B) of this Rule;
 - (ii) the erosion response measures of relocation, beach nourishment or temporary stabilization are not adequate to protect public health and safety; and
 - (iii) the proposed erosion control structure will have no adverse impacts on adjacent properties in private ownership or on public use of the beach.
 - (I) Structures that would otherwise be prohibited by these standards may also be permitted on finding by the Division that:
 - (i) the structure is necessary to protect a state or federally registered historic site that is imminently threatened by shoreline erosion as defined in provision (a)(2)(B) of this Rule;
 - (ii) the erosion response measures of relocation, beach nourishment or temporary stabilization are not adequate and practicable to protect the site;
 - (iii) the structure is limited in extent and scope to that necessary to protect the site; and
 - (iv) any permit for a structure under this Part (I) may be issued only to a sponsoring public agency for projects where the public benefits outweigh the short or long range adverse impacts. Additionally, the permit shall include conditions providing for mitigation or minimization by that agency of any unavoidable adverse impacts on adjoining properties and on public access to and use of the beach.
 - (J) Structures that would otherwise be prohibited by these standards may also be permitted on finding by the Division that:
 - (i) the structure is necessary to maintain an existing commercial navigation channel of regional significance within federally authorized limits;
 - (ii) dredging alone is not practicable to maintain safe access to the affected channel;
 - (iii) the structure is limited in extent and scope to that necessary to maintain the channel;
 - (iv) the structure shall not adversely impact fisheries or other public trust resources; and
 - (v) any permit for a structure under this Part (J) may be issued only to a sponsoring public agency for projects where the public benefits outweigh the short or long range adverse impacts. Additionally, the permit shall include conditions providing

for mitigation or minimization by that agency of any unavoidable adverse impacts on adjoining properties and on public access to and use of the beach.

- (K) The Commission may renew a permit for an erosion control structure issued pursuant to a variance granted by the Commission prior to 1 July 1995. The Commission may authorize the replacement of a permanent erosion control structure that was permitted by the Commission pursuant to a variance granted by the Commission prior to 1 July 1995 if the Commission finds that:
 - (i) the structure will not be enlarged beyond the dimensions set out in the permit;
 - (ii) there is no practical alternative to replacing the structure that will provide the same or similar benefits; and
 - (iii) the replacement structure will comply with all applicable laws and with all rules, other than the rule or rules with respect to which the Commission granted the variance, that are in effect at the time the structure is replaced.
 - (L) Proposed erosion response measures using innovative technology or design shall be considered as experimental and shall be evaluated on a case-by-case basis to determine consistency with 15A NCAC 7M .0200 and general and specific use standards within this Section.
- (2) Temporary Erosion Control Structures:
- (A) Permittable temporary erosion control structures shall be limited to sandbags placed landward of mean high water and parallel to the shore.
 - (B) Temporary erosion control structures as defined in Part (2)(A) of this Subparagraph shall be used to protect only imminently threatened roads and associated right of ways, and buildings and their associated septic systems. A structure is considered imminently threatened if its foundation, septic system, or right-of-way in the case of roads, is less than 20 feet away from the erosion scarp. Buildings and roads located more than 20 feet from the erosion scarp or in areas where there is no obvious erosion scarp may also be found to be imminently threatened when site conditions, such as a flat beach profile or accelerated erosion, increase the risk of imminent damage to the structure.
 - (C) Temporary erosion control structures shall be used to protect only the principal structure and its associated septic system, but not appurtenances such as pools, gazebos, decks or any amenity that is allowed as an exception to the erosion setback requirement.
 - (D) Temporary erosion control structures may be placed seaward of a septic system when there is no alternative to relocate it on the same or adjoining lot so that it is landward of or in line with the structure being protected.
 - (E) Temporary erosion control structures shall not extend more than 20 feet past the sides of the structure to be protected. The landward side of such temporary erosion control structures shall not be located more than 20 feet seaward of the structure to be protected or the right-of-way in the case of roads. If a building or road is found to be imminently threatened and at an increased risk of imminent damage due to site conditions such as a flat beach profile or accelerated erosion, temporary erosion control structures may be located more than 20 feet seaward of the structure being protected. In cases of increased risk of imminent damage, the location of the temporary erosion control structures shall be determined by the Director of the Division of Coastal Management or their designee in accordance with Part (2)(A) of this Subparagraph.
 - (F) Temporary erosion control structures may remain in place for up to two years after the date of approval if they are protecting a building with a total floor area of 5000 sq. ft. or less and its associated septic system, or, for up to five years for a building with a total floor area of more than 5000 sq. ft. and its associated septic system. Temporary erosion control structures may remain in place for up to five years if they are protecting a bridge or a road. The property owner shall be responsible for removal of the temporary structure within 30 days of the end of the allowable time period.
 - (G) Temporary sandbag erosion control structures may remain in place for up to eight years from the date of approval if they are located in a community that is actively pursuing a beach nourishment project, or if they are located in an Inlet Hazard Area adjacent to an inlet for which a community is actively pursuing an inlet relocation or stabilization project in accordance with G.S. 113A-115.1 For purposes of this Rule, a community is considered

to be actively pursuing a beach nourishment, inlet relocation or stabilization project if it has:

- (i) an active CAMA permit, where necessary, approving such project; or
- (ii) been identified by a U.S. Army Corps of Engineers' Beach Nourishment Reconnaissance Study, General Reevaluation Report, Coastal Storm Damage Reduction Study or an ongoing feasibility study by the U.S. Army Corps of Engineers and a commitment of local or federal money, when necessary; or
- (iii) received a favorable economic evaluation report on a federal project; or
- (iv) is in the planning stages of a project designed by the U.S. Army Corps of Engineers or persons meeting applicable State occupational licensing requirements and initiated by a local government or community with a commitment of local or state funds to construct the project and the identification of the financial resources or funding bases necessary to fund the beach nourishment, inlet relocation or stabilization project.

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

- (H) Once the temporary erosion control structure is determined by the Division of Coastal Management to be unnecessary due to relocation or removal of the threatened structure, a storm protection project constructed by the U.S. Army Corps of Engineers, a large-scale beach nourishment project, an inlet relocation or stabilization project, it shall be removed by the property owner within 30 days of official notification from the Division of Coastal Management regardless of the time limit placed on the temporary erosion control structure.
 - (I) Removal of temporary erosion control structures is not required if they are covered by dunes with stable and natural vegetation.
 - (J) The property owner shall be responsible for the removal of remnants of all portions of any damaged temporary erosion control structure.
 - (K) Sandbags used to construct temporary erosion control structures shall be tan in color and three to five feet wide and seven to 15 feet long when measured flat. Base width of the structure shall not exceed 20 feet, and the height shall not exceed six feet.
 - (L) Soldier pilings and other types of devices to anchor sandbags shall not be allowed.
 - (M) An imminently threatened structure may be protected only once, regardless of ownership, unless the threatened structure is located in a community that is actively pursuing a beach nourishment project, or in an Inlet Hazard Area and in a community that is actively pursuing an inlet relocation or stabilization project in accordance with (G) of this Subparagraph. Existing temporary erosion control structures located in Inlet Hazard Areas may be eligible for an additional ~~eight-year~~ ~~eight-year~~ permit extension provided that the structure being protected is still imminently threatened, the temporary erosion control structure is in compliance with requirements of this Subchapter and the community in which it is located is actively pursuing a beach nourishment, inlet relocation or stabilization project in accordance with Part (G) of this Subparagraph. In the case of a building, a temporary erosion control structure may be extended, or new segments constructed, if additional areas of the building become imminently threatened. Where temporary structures are installed or extended incrementally, the time period for removal under Part (F) or (G) of this Subparagraph shall begin at the time the initial erosion control structure is installed. For the purpose of this Rule:
 - (i) a building and septic system shall be considered as separate structures.
 - (ii) a road or highway shall be allowed to be incrementally protected as sections become imminently threatened. The time period for removal of each section of sandbags shall begin at the time that section is installed in accordance with Part (F) or (G) of this Subparagraph.
 - (N) Existing sandbag structures may be repaired or replaced within their originally permitted dimensions during the time period allowed under Part (F) or (G) of this Subparagraph.
- (3) Beach Nourishment. Sand used for beach nourishment shall be compatible with existing grain size and in accordance with 15A NCAC 07H .0312.

- (4) Beach Bulldozing. Beach bulldozing (defined as the process of moving natural beach material from any point seaward of the first line of stable vegetation to create a protective sand dike or to obtain material for any other purpose) is development and may be permitted as an erosion response if the following conditions are met:
- (A) The area on which this activity is being performed shall maintain a slope of adequate grade so as to not endanger the public or the public's use of the beach and shall follow the pre-emergency slope as closely as possible. The movement of material utilizing a bulldozer, front end loader, backhoe, scraper, or any type of earth moving or construction equipment shall not exceed one foot in depth measured from the pre-activity surface elevation;
 - (B) The activity shall not exceed the lateral bounds of the applicant's property unless he has permission of the adjoining land owner(s);
 - (C) Movement of material from seaward of the mean low water line will require a CAMA Major Development and State Dredge and Fill Permit;
 - (D) The activity shall not increase erosion on neighboring properties and shall not have an adverse effect on natural or cultural resources;
 - (E) The activity may be undertaken to protect threatened on-site waste disposal systems as well as the threatened structure's foundations.

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

- (1) Any new dunes established shall be aligned to the greatest extent possible with existing adjacent dune ridges and shall be of the same general configuration as adjacent natural dunes.
- (2) Existing primary and frontal dunes shall not, except for beach nourishment and emergency situations, be broadened or extended in an oceanward direction.
- (3) Adding to dunes shall be accomplished in such a manner that the damage to existing vegetation is minimized. The filled areas shall be immediately replanted or temporarily stabilized until planting can be ~~successfully~~ completed.
- (4) Sand used to establish or strengthen dunes shall be of the same general characteristics as the sand in the area in which it is to be placed.
- (5) No new dunes shall be created in inlet hazard areas.
- (6) Sand held in storage in any dune, other than the frontal or primary dune, ~~shall remain on the lot or tract of land to the maximum extent practicable and~~ may be redistributed within the ~~Ocean Hazard~~ AEC provided that it is not placed any farther oceanward than the crest of a primary ~~dune or landward toe dune, if present, or the crest~~ of a frontal dune.
- (7) No disturbance of a dune area shall be allowed when other techniques of construction can be utilized and alternative site locations exist to avoid ~~unnecessary~~ dune impacts.

(c) Structural Accessways:

- (1) Structural accessways shall be permitted across primary ~~or frontal~~ dunes so long as they are designed and constructed in a manner that entails negligible alteration ~~on~~ ~~of~~ the primary ~~or frontal~~ dune. Structural accessways shall not be considered threatened structures for the purpose of Paragraph (a) of this Rule.
- (2) An accessway shall be ~~conclusively presumed considered~~ to entail negligible alteration of a primary ~~or frontal~~ dune provided that:
 - (A) The accessway is exclusively for pedestrian use;
 - (B) The accessway is ~~less than a maximum of~~ six feet in width;
 - (C) The accessway is raised on posts or pilings of five feet or less depth, so that wherever possible only the posts or pilings touch the ~~frontal~~ dune. Where this is deemed impossible, the structure shall touch the dune only to the extent ~~absolutely necessary. In no case shall an accessway be permitted if it will diminish the dune's capacity as a protective barrier against flooding and erosion; necessary;~~ and
 - (D) Any areas of vegetation that are disturbed are revegetated as soon as feasible.
- (3) An accessway which does not meet Part (2)(A) and (B) of this Paragraph shall be permitted only if it meets a public purpose or need which cannot otherwise be met and it meets Part (2)(C) of this Paragraph. Public fishing piers ~~shall are~~ not ~~be deemed to be~~ prohibited by this Rule, provided all other applicable standards are met.
- (4) In order to ~~avoid weakening~~ ~~preserve~~ the protective nature of primary and frontal dunes a structural accessway (such as a "Hatteras ramp") ~~shall may~~ be provided for ~~any~~ off-road vehicle (ORV) or emergency vehicle access. Such accessways shall be no greater than ~~10 15~~ feet in width and ~~shall~~

may be constructed of wooden sections fastened together together, or other materials approved by the Division, over the length of the affected dune area. Installation of a Hatteras ramp shall be done in a manner that will preserve the dune's function as a protective barrier against flooding and erosion by not reducing the volume of the dune.

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

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

- (1) In order to avoid danger to life and property, all development shall be designed and placed so as to minimize damage due to fluctuations in ground elevation and wave action in a 100-year storm. Any building constructed within the ocean hazard area shall comply with relevant sections of the North Carolina Building Code including the Coastal and Flood Plain Construction Standards and the local flood damage prevention ordinance as required by the National Flood Insurance Program. If any provision of the building code or a flood damage prevention ordinance is inconsistent with any of the following AEC standards, the more restrictive provision shall control.
- (2) All building in the ocean hazard area shall be on pilings not less than eight inches in diameter if round or eight inches to a side if square.
- (3) All pilings shall have a tip penetration greater than eight feet below the lowest ground elevation under the structure. For those structures so located on or seaward of the primary dune, the pilings shall extend to five feet below mean sea level.
- (4) All foundations shall be adequately designed to be stable during applicable fluctuations in ground elevation and wave forces during a 100-year storm. Cantilevered decks and walkways shall meet this standard or shall be designed to break-away without structural damage to the main structure.

History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b)(6)a.,b.,d.; 113A-115.1; 113A-124; Eff. June 1, 1979; Filed as a Temporary Amendment Eff. June 20, 1989, for a period of 180 days to expire on December 17, 1989; Amended Eff. August 3, 1992; December 1, 1991; March 1, 1990; December 1, 1989; RRC Objection Eff. November 19, 1992 due to ambiguity; RRC Objection Eff. January 21, 1993 due to ambiguity; Amended Eff. March 1, 1993; December 28, 1992; RRC Objection Eff. March 16, 1995 due to ambiguity; Amended Eff. April 1, 1999; February 1, 1996; May 4, 1995; Temporary Amendment Eff. July 3, 2000; May 22, 2000; Amended Eff. May 1, 2013; July 1, 2009; April 1, 2008; February 1, 2006; August 1, 2002.

15A NCAC 07K .0103 MAINTENANCE AND REPAIR

(a) ~~Maintenance and repairs~~ “Maintenance” and “repairs” are specifically excluded from the definition of development “development” under the conditions and in the circumstances set out in G.S. 113A-103(5)(b)(5). Individuals required to take such measures within an AEC shall contact the local CAMA representative for consultation and advice before beginning work.

~~Property may be considered to be imminently threatened for the purpose of the exclusion for maintenance and repairs when it meets the criteria for an imminently threatened structure as set out in 15A NCAC 7H .0308(a), which provides that a structure will be considered to be imminently threatened by erosion when the foundation, septic system or right of way in the case of roads is less than 20 feet from the erosion scarp. Buildings and roads located more than 20 feet from the erosion scarp or in areas where there is no obvious erosion scarp may also be found to be imminently threatened when site conditions, such as a flat beach profile or accelerated erosion, tend to increase the risk of imminent damage to the structure.~~

(b) Beach bulldozing, defined as the process of moving natural beach material from any point seaward of the first line of stable vegetation, for the purpose of preventing damage to imminently threatened ~~structures,~~ structures as defined in 15A NCAC 7H .0308(a), by the creation of protective sand dunes shall qualify for an exclusion under G.S. 113A-103(5)(b)(5) subject to the following limitations:

- (1) The area on which this activity is being performed must maintain a slope of adequate grade so as not to endanger the public or the public's use of the beach and should follow the natural that follows the pre-emergency slope as closely as possible, possible so as not to endanger the public or hinder the public's use of the beach. All mechanically disturbed areas must be graded smooth of ruts and spoil berms that are perpendicular to the shoreline. The movement of material utilizing a bulldozer, front-end loader, back hoe, scraper or any type of earth moving or construction equipment shall not exceed one foot in depth measured from the ~~preactivity~~ surface elevation;
- (2) The activity must not exceed the lateral bounds of the applicant's property unless he has without written permission of adjoining landowners;
- (3) Movement of material from seaward of the mean low water line will not be permitted under this exemption;
- (4) The activity must not significantly increase erosion on neighboring properties and must not have a significant adverse effect on important natural or cultural resources;
- (5) The activity may be undertaken to protect threatened on-site waste disposal systems as well as the threatened structure's foundations.

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

History Note: Authority G.S. 113A-103(5)(b)(5); 113A-118(a);
Eff. November 1, 1984;
Amended Eff. March 1, 1985;
RRC Objection Eff. January 18, 1996 due to ambiguity;
Amended Eff. March 1, 1996.