



NORTH CAROLINA
Environmental Quality

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

BRAXTON C. DAVIS
Director

CRC-18-22

September 6, 2018

MEMORANDUM

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

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

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

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

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

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

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



Fiscal Analysis

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

“Ocean Outfalls”

Prepared by

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Summary

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



Description of the Proposed Rules

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

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

Table 1. Ocean outfalls maintained by state or local government

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





Fig. 1 Non-extended outfall on a nourished beach

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



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

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





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

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

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

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

FISCAL IMPACTS

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

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

State Government/Division of Coastal Management

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



NC Department of Transportation

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

Local Government

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

Beachgoers

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

Substantial Impact

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



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

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

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

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

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

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



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

- (5) All other provisions of this Subchapter and other state and local regulations are met. If the development is to be serviced by an on-site waste disposal system, a copy of a valid permit for such a system shall be submitted as part of the CAMA permit application.
- (c) Reconfiguration and development of lots and projects that have a grandfather status under Paragraph (b) of this Rule shall be allowed provided that the following conditions are met:
 - (1) Development is setback from the first line of stable natural vegetation a distance no less than that required by the applicable exception;
 - (2) Reconfiguration shall not result in an increase in the number of buildable lots within the Ocean Hazard AEC or have other adverse environmental consequences.

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

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

- (1) piers providing public access; and
- (2) maintenance and replacement of existing state-owned bridges and causeways and accessways to such bridges.

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

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

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

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

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



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

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

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

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

