



CRC-26-66

July 30, 2026

MEMORANDUM

TO: Coastal Resources Commission
FROM: Gregg Bodnar
SUBJECT: Fiscal Analysis Alternative sandbags to protect public roadways

At your August 2025 CRC meeting DCM staff presented a rule amendment request from NC DOT to allow for the use of alternative designed sandbags that do not meet 07H .0308(b)(2)(L) use standards for color and individual sandbag dimensions of 3-5 feet wide and 7-15 feet long when measured flat. After your August 2025 CRC meeting, NC DOT contacted DCM staff to request further amendments to the rule language request to allow for an increased base width from 20 feet to 30 feet and height from 6 feet to 10 feet, as measured from the bottom of the lowest bag. The draft rule language for 07H .0308(b)(2)(O) is below.

Sandbags used to construct temporary erosion control structures to protect public roads are not subject to the color and size limitations in 7H .0308 (b)(2)(L). Base width of the temporary erosion control structures to protect public roads shall not exceed 30 feet, and the total height shall not exceed 10 feet, as measured from the bottom of the lowest bag.

You approved this rule amendment for fiscal analysis at your February 2026 meeting. This rule amendment limits the use of alternative sandbags to public roads limiting fiscal impacts to NC DOT and DCM is limited to the protection of public roads. Private property owners/development community and local governments are not directly impacted by this amendment. Local governments and the public may realize indirect benefits if roadways are protected through preservation of access and utility infrastructure, evacuation routes and a diminished risk of emergency services interruption.

Fiscal Impacts NC DOT estimates 83.5 hours of staff time totaling \$6,439 in opportunity costs per variance and typically requires one Division level staff member and 1-2 lawyers. DCM estimates 56 hours of staff time totaling \$4,392.42 in opportunity cost per variance and require multiple staff input. To date, NC DOT has requested, and were granted, three variances to use alternative sandbags. If alternative sandbag options are permissible under CRC rule, there should be a reduction in the frequency of variance requests by NC DOT. A variance that meets the intent of the rule could still require a variance if resource agency concerns indicate the proposal would cause significant adverse impacts to the environment.

The proposed amendment is expected to have a modest fiscal impact that is primarily administrative. The proposed rule does not create a new category of activity but will reduce the need for repeated variances and therefore reduce staff burden and delay for NC DOT and DCM. Absent a rule amendment, similar variances are expected which will continue to cause operational uncertainty for NC DOT in the form of delays in roadway protection in chronically eroding coastal areas.



OSBM approved the fiscal analysis on July 23, 2026. DCM staff look forward to presenting this fiscal analysis at your August meeting.



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Fiscal Analysis

Proposed Rule Revisions for the protection of public roadways under 15A NCAC 07H .0308

Prepared by

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July 22, 2026

Basic Information

Agency	DEQ, Division of Coastal Management (DCM) Coastal Resources Commission (CRC)
Citations and Titles	15A NCAC 7H.0308 – Specific Use Standards for Ocean Hazard Areas
Description of the Proposed Rules	Rule 07H .0308 defines the use standards for development within the Ocean Hazard Area of Environmental Concern (OHA AEC). Subparagraph (b)(2) identifies temporary erosion control structures as sandbags and provides use standards for these structures within the OHA AEC. The rule further defines the color and dimensions of sandbags allowable under 07H .0308(b)(2)(L). A new subparagraph 07H .0308(b)(2)(O) will differentiate what is allowable for color and dimensions of temporary erosion control structures for the protection of public roadways.
Agency Contact	Gregg Bodnar Major Permits Coordinator, Morehead City Office Gregg.Bodnar@deq.nc.gov (252) 515-5416
Authority	G.S. 113A-107(a); 113A-107(b); 113A-113(b)(6)a.,b.,d.; 113A-115.1; 113A-124;
Necessity	The Coastal Resources Commission (CRC) is proposing to insert 15A NCAC 7H .0308(b)(2)(O). This rule will allow broader color and dimension criteria to the protection of public roadways by the NC Department of Transportation (NC DOT). These changes are needed because recurring erosion events have prompted NC DOT to look at alternative sandbag designs that increasingly require NC DOT to seek variances from the existing sandbag rule, highlighting that the current color and dimension limitations are too restrictive for effectively protecting public roadways.
Impact Summary	State government: Yes Local government: No Substantial impact: No Private entities: No

Background

Rule 15A NCAC 07H .0308(b)(2) governs temporary erosion control structures within the Ocean Hazard Area or Environmental Concern and currently limits such structures to tan sandbags with specified individual bag dimensions and overall structure dimensions. Since 2020, the NC Coastal Resources Commission has granted the NC Department of Transportation (NC DOT) three variances to allow the use of “alternative sandbags” that do not meet the color and dimension limitations in the existing rule. These alternative designs have been used for roadway protection projects on NC 12 in Ocracoke, Mirlo Beach, and near the Pea Island Visitors Center. The approved bags were 50-foot-long white, tetrahedral structures with individual baffled cells. These variances were sought in response to chronic erosion events affecting public roadways and reflect the recurring need for a more effective temporary erosion control option that can be deployed quickly when roadway infrastructure is threatened.



Figure 1. Alternative sandbag being installed at Pea Island. Photo: Division of Coastal Management

In August 2025 and February 2026, the NC DCM presented the NC DOT’s request for rule language that would allow use of alternative sandbags without requiring repeated variances. The CRC approved draft rule language in February 2026 for fiscal analysis.

Description of Rule Amendments

The proposed amendment adds Subparagraph (O) to 15A NCAC 07H .0308(b)(2). The new subsection exempts sandbags used to construct temporary erosion control structures for public roads from the color and individual bag dimension limitations in Subparagraph (L). It also increases the maximum allowable overall structure dimensions for roadway protection from a 20-foot base width and 6-foot height to a 30-foot base width and 10-foot height, measured from the bottom of the lowest bag.

This amendment does not change the existing standards applicable to temporary erosion control structures for private property owners or other non-roadway uses. It is limited to sandbags used to protect public roads within the right of way maintained by the state. As in past variances, DCM believes these alternative sandbags will be utilized along public roads adjacent to or in proximity to the Atlantic Ocean where current rule 07H .0308(b)(2) allows for the use of temporary erosion

control structures within the Ocean Hazard AEC.

Baseline and Expected Effect

Under the current rule, NC DOT has been able to seek variances to use nonconforming sandbags, and the agency has in fact done so several times since 2020. As a result, the proposed rule is best understood not as creating an entirely new practice, but as codifying and streamlining a recurring response that NC DOT has already used under the variance process.

The primary expected impact of the proposed change is not the introduction of a new erosion control tool, but the reduction of administrative delay associated with variance review and approval. In practice, the rule change would allow NC DOT to submit an application for review under the NC DCM umbrella application process that would be consistent with the proposed rule for qualifying roadway protection projects, rather than preparing a variance request and awaiting review by the Commission. This may be particularly important where erosion conditions require prompt installation to avoid further loss of roadway support, avoid interruption of transportation service, or reduce the risk of storm damage.

Impact Analysis

Private Property Owners/Development Community

The proposed amendment does not alter the standards applicable to temporary erosion control structures for private property owners or the development community. Private property applicants would remain subject to the existing rule requirements for color, size, location, and duration, and the new subsection applies only to public roads.

There may be indirect effects for nearby property owners if improved roadway protection preserves access, supports emergency response, and reduces the risk that erosion events isolate homes or businesses. These indirect effects already occur under the current variance process; the primary difference with the proposed rule is that these protective measures can be put in place more quickly, minimizing delays associated with variance review and approval.

State Government

NC Department of Transportation (NC DOT)

The addition of subsection (O) expands the potential options NC DOT will have to protect public roadways that are allowable under rule. The primary impact is a reduction in the need for variances when NC DOT must protect imminently threatened public roads with alternative sandbags. The main benefit to NC DOT is the ability to implement protective measures more quickly, reducing administrative delays. NC DOT will still be required to submit an application for review and comment under the NC DCM major permit umbrella application review process.

Since the initial variance for alternative sandbags in June of 2020, NC DOT has received five

sandbag permits via Major Permit. Of those five, three required a variance for color and dimension inconsistencies with the rule. The variance process typically adds significant time-- between 2 to 4 months on average-- between denial of the Major Permit or conditioned permit to CRC rule and approval of the variance. With the proposed rule change, NC DOT will no longer require a variance for sandbags that meet 15A NCAC 07H .0308(b)(2)(O).

A variance to a major permit denial or condition of an issued major permit requires substantial NC DOT staff time: Environmental Specialist II (approximately 16 hours at \$65/hr = \$1,040 in opportunity costs) and legal counsel (average 67.5 hours at \$82/hr = \$5,399 in opportunity costs). Preparing the variance package for CRC review and presentation, as well as attending the variance hearing, results in a total of about 83.5 hours (\$6,439 total in opportunity costs) for NC DOT staff per typical variance.¹

The proposed rule may eliminate some or all of this administrative burden for future roadway protection projects that meet the new standards. Beyond opportunity cost savings, the practical value of the amendment is that it allows NC DOT to install protective structures more quickly during active erosion events, potentially reducing the risk of further roadway loss, service interruptions, and emergency repair costs. Thus, the rule change may produce operational benefits even if direct fiscal savings are modest.

There is also a technical rationale for the revised dimensions. Alternative sandbags can achieve protective structure dimensions that better meet intended purpose and need of the NC DOT. The approved variances and proposed amendment reflect a broader range of roadway protection needs rather than the narrower design limits applicable to other temporary erosion control structures.

The proposed rule addition does not change permit fee amounts. Therefore, it is not expected to have an effect on permit fees for NC DOT.

Division of Coastal Management (DCM)

The proposed rule is expected to reduce the administrative workload associated with recurring variances for roadway protection projects. Under the current process, DCM staff must prepare variance records, coordinate internal reviews, and support Commission consideration of each variance request. By allowing qualifying projects to proceed directly under the rule, the proposed amendment would streamline this process and reduce the need for variance packages.

The fiscal effect for DCM is therefore likely to be modest and administrative. The rule is likely to save staff time per project by decreasing the frequency of variance hearings and related preparation time. However, it may also shift some effort toward permit review and confirmation that roadway projects meet the new rule standards. DCM anticipates a slight increase in sandbag requests that meet subsection (O) as compared to the number of requests that have come through the variance process. On balance, the amendment should reduce time spent on variances while maintaining the core permitting function.

Requesting a variance after a major permit denial or when conditions are imposed on a major permit

¹ Hourly staff time costs were estimated using [NC OSHR: Total Compensation Calculator](#) and include salary + fringe.

involves significant time and effort from various NC DCM staff, including the Director, Deputy Director, Regulatory Section Chief, Major Permit Coordinator, DOT Assistant Major Permit Coordinator, Field Representatives, and legal counsel. The process results in a variance package that the NC CRC reviews, based on stipulated facts and a presentation. Staff spent an average of 56 hours on each NC DOT variance request, resulting in about \$4,392 in opportunity costs (avg \$78/hour) -- the value of time that could have been used for other agency tasks. If a permit is issued following subsection (O), it would save an estimated 56 hours of staff time and about \$4,392 in opportunity costs per request.²

The proposed rule addition does not change permit fee amounts. Therefore, it is not expected to have an effect on permit fee revenue.

Coastal Resources Commission (CRC)

The CRC serves as the body responsible for reviewing and deciding on variance requests related to temporary erosion control structures. Under the current process, CRC members collectively spend approximately 13 hours considering each variance request, which includes reviewing materials, participating in discussions, and making determinations during commission meetings. By allowing qualifying projects to proceed directly under the rule, the proposed amendment is expected to reduce the frequency and duration of variance reviews, thereby freeing CRC members to focus on other regulatory and policy matters. This reduction in time represents an opportunity cost savings for the Commission, as members could allocate these hours to other priorities.

Local Government

The amendment does not change the standards applicable to local government applicants or other non-roadway temporary erosion control structures. Local governments would remain subject to the existing sandbag standards unless they are acting in a roadway-protection context covered by the new subsection.

As with private property owners, local governments may realize indirect benefits if enhanced roadway protection preserves access and utility infrastructure, facilitates evacuation routes, or diminishes the risk of emergency service interruption. Such indirect effects are already occurring under the current variance process; however, the proposed rule expedites the implementation of these protective measures. It should be noted that the proposed rule amendment neither broadens local government permitting authority nor imposes additional compliance requirements.

Local governments have not requested these types of variances in the past, and the rule change is not expected to result in local governments pursuing use of these alternatives sandbags.

Other Resource Agencies

The involvement of agencies such as NC Wildlife Resources Commission, U.S. Fish and Wildlife Service, and other state or federal resource agencies will remain unchanged under the proposed rule amendment. NC DOT will still be required to apply for a Major Permit, as the proposed rule changes

² Hourly staff time costs were estimated using [NC OSHR: Total Compensation Calculator](#) and include salary + fringe.

do not alter the General Permit for sandbags, which ensures that all resource agencies have the same opportunity to review and comment on proposed uses of alternative sandbags. The permitting process itself is not changing; resource agencies will continue to participate in the open and transparent umbrella review process, which includes notification of adjacent riparian property owners, public notice in a local newspaper, and comprehensive agency review.

When reviewing a Major Permit application and comments received, DCM may conclude that there is potential for a significant adverse impact. In such instances, conditions may be incorporated into the permit beyond those explicitly outlined in the existing rule. This approach promotes agency engagement and supports comprehensive environmental review and public transparency.

Natural Resources

The proposed amendment would allow larger sandbag structures for roadway protection by increasing the allowable base width and height beyond the current rule. This could expand the temporary footprint of the sandbags and slightly alter the beach shape and visual character immediately around them. However, similar larger designs have already been approved through variances and have been successfully installed in the field.

These alternative sandbag systems have been used in the past because they can often be installed more quickly, require less equipment and handling, and in some cases provide a different level protection for threatened roadways than traditional sandbags. Faster installation and less equipment can also help reduce shoreline disturbance. For instance, the alternative sandbags previously installed by variance were filled with dry sand that can be trucked in, versus traditional sandbags that require sand from the adjacent beachfront to be mixed with seawater and pumped into the sandbags. Recent storms showed that alternative sandbag designs may be beneficial, suggesting the environmental tradeoff is not simply that larger structures are worse, but that a somewhat larger temporary footprint may be offset by less repeated disturbance from slower, more equipment-intensive emergency construction.

Overall, the amendment is expected to have only a limited incremental environmental impact compared with current variance-based practice, since similar structures have already been approved for comparable roadway projects. The main change is that these structures would be reviewed through the Major Permit application review process and authorized directly in rule rather than through repeated variance requests.

Prior variance requests have involved white sandbags, and that is expected to continue. If a permit is requested for another color and resource agencies, DCM, or the CRC raise concerns -- such as increased sand heating from darker materials, which could affect nesting sea turtles -- those issues would be addressed during permit review. Larger footprints near the beach could also affect sea turtle nesting habitat more than smaller tan bags, and those potential impacts would be evaluated by the agencies.

All relevant environmental concerns, including larger footprints, increased sand heating, and effects on natural resources, would continue to be addressed through the application review process. Authorizing larger sandbags in rule does not reduce environmental oversight; agency coordination and site-specific review would remain unchanged. If agency comments identify significant adverse impacts, an application could still be denied or conditioned. DCM may also impose permit conditions beyond those stated in the rule, to satisfy other applicable rules or statutes, to address site-specific

concerns and ensure full environmental review and agency coordination.

Conclusion

The proposed amendment is expected to have a modest fiscal impact that is primarily administrative. The rule does not create a new category of activity, but it does reduce the need for repeated variances and therefore reduces staff burden for NC DOT and DCM and approval delay for NC DOT. Because similar variances are expected to continue to be granted on a case-by-case basis, the incremental fiscal effect is limited, but the rule still provides operational certainty and may improve the speed and effectiveness of roadway protection in chronically eroding coastal areas.

APPENDIX A

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

(a) For purposes of this Rule, the following definitions apply:

- (1) "Adverse impact", "adverse impacts", "adverse effects", or similar formulations, are defined as an effect or impact that is opposed to the goals of the Coastal Area Management Act as found in G.S. 113A-102(b) and with the provisions of G.S. 113-229(e).
- (2) "Significant" as used in this Section includes consideration of both context and intensity. Context means that the impact or effect shall be analyzed from several perspectives that include society as a whole (human, national), the affected subregion of the North Carolina coast, the local area and all directly and indirectly affected parties. Both short- and long-term effects are relevant. Intensity refers to the severity of impact or effect. The following shall be considered in evaluating intensity:
 - (A) both adverse impacts as defined in Subparagraph (a)(1) of this Rule and impacts that promote or enhance the goals of the Coastal Area Management Act as set out at G.S. 113A-102(b);
 - (B) the degree to which the proposed action affects public health or safety;
 - (C) unique characteristics of the geographic area;
 - (D) the degree to which the effects on the quality of the human environment are likely to be disagreed upon;
 - (E) the degree to which the possible effects on the environment are uncertain or involve unique or unknown risks;
 - (F) the degree to which the CRC's permit decisions may establish a precedent for future CRC permit decisions;
 - (G) the degree to which the CRC's permit decisions are related to other CRC permit decisions with individually insignificant but cumulatively significant impacts. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts; and
 - (H) the degree to which the CRC's permit decision may cause the loss or destruction of scientific, cultural, historical, and environmental resources as those terms are commonly defined and understood.

(b) Ocean Shoreline Erosion Control Activities:

- (1) Use Standards Applicable to all Erosion Control Activities:
 - (A) All oceanfront erosion response activities shall be consistent with 15A NCAC 07H .0308 and G.S.113A-115.1.
 - (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, unless specifically authorized under the Coastal Area Management Act, 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) Shoreline erosion response projects shall not be constructed in beach or estuarine areas that sustain habitat for fish and wildlife species, as identified by State or federal natural resource agencies during project review, unless mitigation measures are incorporated into project design, as set forth in Rule .0306(h) of this Section.
 - (E) Project construction shall be timed to minimize adverse effects on biological activity.
 - (F) Prior to completing any erosion response project, all exposed remnants of or debris from failed erosion control structures must be removed by the permittee.
 - (G) Permanent 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 that 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 Part (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.
 - (H) 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 Part (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) a permit for a structure under this Part may be issued only to a sponsoring public agency for projects where the public benefits outweigh the significant adverse impacts. Additionally, the permit shall include conditions providing for mitigation or minimization by that agency of significant adverse impacts on adjoining properties and on public access to and 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 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 have significant adverse impacts on fisheries or other public trust resources; and
 - (v) a permit for a structure under this Part may be issued only to a sponsoring public agency for projects where the public benefits outweigh the significant adverse impacts. Additionally, the permit shall include conditions providing for mitigation or minimization by that agency of any significant adverse impacts on adjoining properties and on public access to and use of the beach.
 - (J) 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 alternative to replacing the structure that will provide the same or similar benefits as determined by DCM based on costs and engineering options; 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.
 - (K) Proposed erosion response measures using innovative technology or design shall be considered as experimental and shall be evaluated on a case-by-case basis to determine consistency with 15A NCAC 07M .0200 and general and specific use standards within this Section.
- (2) Temporary Erosion Control Structures:
- (A) Permittable temporary erosion control structures shall be limited to sandbags placed landward of mean high water and parallel to the shore.
 - (B) Temporary erosion control structures as defined in Part (A) of this Subparagraph may 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 under Rule .0309 of this Section as an exception to the erosion setback requirement.
 - (D) Temporary erosion control structures may be placed waterward 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 except to align with temporary erosion control structures on adjacent properties, where the Division has determined that gaps between adjacent erosion control structures may result in an increased risk of damage to the structure to be protected. The landward side of such temporary erosion control structures shall not be located more than 20 feet waterward 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 waterward 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 the Director's designee in accordance with Part (A) of this Subparagraph.

- (F) Temporary erosion control structures may remain in place for up to eight years for a building and its associated septic system, a bridge or a road. The property owner shall be responsible for removal of any portion of the temporary erosion control structure exposed above grade within 30 days of the end of the allowable time period.
- (G) An imminently threatened structure or property may be protected only once, regardless of ownership, unless the threatened structure or property is located in a community that is actively pursuing a beach nourishment project or an inlet relocation or stabilization project in accordance with Part (H) of this Subparagraph. Existing temporary erosion control structures may be permitted for additional eight-year periods provided that the structure or property 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 or an inlet relocation or stabilization project in accordance with Part (H) 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 (H) of this Subparagraph shall begin at the time the initial erosion control structure was installed. For the purpose of this Rule:
 - (i) a building and its septic system shall be considered separate structures,
 - (ii) a road or highway may be incrementally protected as sections become imminently threatened. The time period for removal of each contiguous section of temporary erosion control structure shall begin at the time that the initial section was installed, in accordance with Part (F) of this Subparagraph.
- (H) For purposes of this Rule, a community is considered to be actively pursuing a beach nourishment or an inlet relocation or stabilization project in accordance with G.S. 113A-115.1 if it:
 - (i) has been issued an active CAMA permit, where necessary, approving such project; or
 - (ii) has 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) has 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 or 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.
- (I) Once a temporary erosion control structure is determined by the Division of Coastal Management to be unnecessary due to relocation or removal of the threatened structure, it shall be removed to the maximum extent practicable 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. If the temporary erosion control structure is determined by the Division of Coastal Management to be unnecessary due to the completion of a storm protection project constructed by the U.S. Army Corps of Engineers, a large-scale beach nourishment project, or an inlet relocation or stabilization project, any portion of the temporary erosion control structure exposed above grade 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.
- (J) Removal of temporary erosion control structures is not required if they are covered by sand. Any portion of the temporary erosion control structure that becomes exposed above grade after the expiration of the permitted time period shall be removed by the property owner within 30 days of official notification from the Division of Coastal Management.
- (K) The property owner shall be responsible for the removal of remnants of all portions of any damaged temporary erosion control structure.
- (L) Sandbags used to construct temporary erosion control structures shall be tan in color and 3 to 5 feet wide and 7 to 15 feet long when measured flat. Base width of the temporary erosion control structure shall not exceed 20 feet, and the total height shall not exceed 6 feet, as measured from the bottom of the lowest bag.
- (M) Soldier pilings and other types of devices to anchor sandbags shall not be allowed.

- (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.
- ~~(O) Sandbags used to construct temporary erosion control structures to protect public roads are not subject to the color and size limitations in 7H .0308 (b)(2)(L). Base width of the temporary erosion control structures to protect public roads shall not exceed 30 feet, and the total height shall not exceed 10 feet, as measured from the bottom of the lowest bag.~~
- (3) Beach Nourishment. Sand used for beach nourishment shall be compatible with existing grain size and in accordance with Rule .0312 of this Section.
- (4) Beach Bulldozing. Beach bulldozing is defined as the process of moving natural beach material from any point seaward of the vegetation line to create a protective sand dike or to obtain material for any other purpose is considered 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 permission is obtained from 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 as identified by the NC Department of Natural and Cultural Resources.
 - (E) The activity may be undertaken to protect threatened on-site waste disposal systems as well as the threatened structure's foundations.
- (c) Dune Protection, Establishment, Restoration and Stabilization.
 - (1) No development shall be permitted that involves the removal or relocation of primary or frontal dune sand or vegetation that would adversely affect the integrity of the dune's function as a protective barrier against flooding and erosion. Other dunes within the ocean hazard area shall not be disturbed unless the development of the property is otherwise impracticable. Any disturbance of these other dunes shall be allowed only to the extent permitted by this Rule.
 - (2) Any new dunes established shall be aligned to the greatest extent possible with existing adjacent dune ridges and shall be of the same configuration as adjacent natural dunes.
 - (3) Existing primary and frontal dunes shall not, except for beach nourishment and emergency situations, be broadened or extended in an oceanward direction.
 - (4) Adding to dunes shall be accomplished in such a manner that the damage to existing vegetation is minimized. The filled areas shall be replanted or temporarily stabilized until planting can be completed.
 - (5) 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.
 - (6) No new dunes shall be created in inlet hazard areas. Reconstruction or repair of existing dune systems as defined in Rule .0305 of this Section and within the Inlet Hazard Area may be permitted.
 - (7) 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, if present, or the crest of a frontal dune.
 - (8) No disturbance of a dune area shall be allowed when other techniques of construction can be utilized and alternative site locations exist to avoid dune impacts.
- (d) 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 does not alter 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 considered to entail negligible alteration of primary or frontal dunes provided that:
 - (A) The accessway is exclusively for pedestrian use;
 - (B) The accessway is a maximum of six feet in width;
 - (C) Except in the case of beach matting, 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 dune, in accordance with any more restrictive local, State, or federal building requirements. Beach matting shall be installed at grade and not involve any excavation or fill of the dune; and
 - (D) Any areas of vegetation that are disturbed are revegetated as soon as feasible.

- (3) An accessway that 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 are allowed provided all other applicable standards of this Rule are met.
 - (4) In order to preserve the protective nature of primary and frontal dunes, a structural accessway such as a "Hatteras ramp" may be provided for off-road vehicle (ORV) or emergency vehicle access. Such accessways shall be no greater than 15 feet in width and may be constructed of wooden sections fastened 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 and beach matting 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 and beach matting are not restricted by the requirement to be landward of the First Line of Stable and Natural Vegetation as described in Rule .0309(a) of this Section. A local, State, or federal entity may install beach matting farther seaward to enhance handicap accessibility at a public beach access, subject to review by the Wildlife Resources Commission and the U.S. Fish and Wildlife Service to determine whether the proposed design or installation will have an adverse impact on sea turtles or other threatened or endangered species.
- (e) Building Construction Standards. New building construction and any construction identified in Rule .0306(a)(5) of this Section and 15A NCAC 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 designed to be stable during applicable fluctuations in ground elevation and wave forces during a 100-year storm. Cantilevered decks and walkways shall meet the requirements of this Part 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;
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