



North Carolina Department of Environment and Natural Resources
Division of Coastal Management

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James H. Gregson, Director

William G. Ross Jr., Secretary

September 13, 2007

MEMORANDUM

I&S-07-18

TO: Implementation and Standards Committee
FROM: Bonnie Bendell
SUBJECT: Estuarine Shoreline Stabilization Draft Rules

At the July 2007 CRC meeting, staff presented the last in a series of proposed changes to the estuarine shoreline stabilization general permit rules. These changes are part of the effort to implement Goal 3 Recommendation 3.4 of the CHPP, which is to “protect fish habitat by revising estuarine and public trust shoreline stabilization rules using best available information, considering estuarine erosion rates and the development and promotion of incentives for use of alternatives to vertical stabilization measures.”

At the upcoming CRC meeting in Wilmington, staff will summarize all the proposed rule changes and present a draft for the Committee to consider for public hearing.

Shoreline Stabilization Rule Change Efforts Summary

As a result of the Coastal Habitat Protection Plan (CHPP) the CRC has been focusing attention on its estuarine shoreline stabilization policies. As specified by the CHPP Implementation Plan, the CRC Chairman established an Estuarine Shoreline Stabilization Subcommittee, which is comprised of three CRC members and two CRAC members. The Subcommittee was charged with revising the estuarine shoreline stabilization rules to encourage alternatives to vertical structures.

In 2006, the North Carolina Estuarine Biological and Physical Processes Work Group, an assemblage of experts in biology, ecology, engineering, estuarine processes, sea level rise, and erosion control, was formed to discuss the impacts (both biological and physical) related to stabilizing an estuarine shoreline. The Work Group completed a report detailing a hierarchy of preferred shoreline stabilization measures for the different shoreline types in North Carolina. The final report was submitted in November 2006 and used by the Subcommittee to draft rules for the shoreline stabilization general permit rule changes.

The Work Group also discussed the proper location and design of structures to be used for estuarine shoreline stabilization and submitted recommendations to the Estuarine Stabilization Subcommittee. These recommendations were also used to formulate the draft rule changes. The following are the

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Work Group's preferred structure locations to minimize adverse impacts to habitats and public trust waters:

- Vegetation Control – Wetland vegetation should be planted between mid and high tide. An approximate minimum width of 20 feet will reduce wave energy on the shoreline.
- Sills – A sill should be located 5 feet waterward of the wetland vegetation. A sill should be located so that at least 20 feet of wetland vegetation can be planted or regenerate.
- Groins – A groin or groin series should be as short as possible to still be effective for the particular location. Actual groin length is specific to site and waterway conditions and should be designed specifically for each site.
- Breakwaters – Design needs to be completed by a professional who is experienced in breakwater design. The actual placement of the structure is part of the design and its intended purpose.
- Sloped Structures – The waterward toe of the structure should be located no further waterward than normal high water. If a scarped sediment bank is present at the site, the sloped structure should be located on the sediment bank (even if it located landward of the normal high water line) to utilize the existing slope and minimize fill placement. If wetland vegetation is located on the site, the structure should be located a buffer distance from the vegetation to prevent damage during construction and to allow migration of the wetlands.
- Vertical Structures – The structure should be located no further waterward than normal high water. If a scarped sediment bank is present at the site, the structure should be located at the toe of the sediment bank (even if it located landward of the normal high water line) and to minimize fill placement. If wetland vegetation is located on the site, the structure should be located a buffer distance from the vegetation to prevent damage during construction and to allow migration of the wetlands.

In order to highlight the changes that have been made to the rules in the last couple years as well as get input on upcoming potential rule changes, the Division held four workshops with marine contractors in February of this year. During these meetings, staff solicited their input on shoreline stabilization methods and techniques. The main points of input from the marine contractors included:

- Contractors will do anything and everything to avoid elevating a project to a Major Permit rather than a General Permit.
- Most contractors like the idea of sills, but there is no guarantee that they will stabilize a shoreline or hold up for a long period of time.
- Marsh Enhancement Breakwaters are not being used because they also provide no definite guarantee for protection. Non-marsh enhancement breakwaters also require a major permit so they are most often avoided.
- The contractors are welcoming the use of stone/riprap, but some homeowners are still afraid of the snakes and potential danger of loose rock on their property.
- The contractors are in it for their business – they aren't going to suggest a different structure if they don't build it or specialize in it even if it is better for the site.
- Contractors in the northern counties are building riprap structures to 2H:1V slope (because that is the slope we allow) and then let the wave action bring it to an equilibrium slope which is about 3:1 and then come back to add more rock. The contractors aren't breaking our rules, but they are working around what doesn't work in the field. They pointed out that if there was one thing they had trouble with it was the slope requirements.

- Most of the contractors feel that moving a bulkhead landward wouldn't impact their industry drastically because people will still want a bulkhead. If the bulkhead option is taken away then it will put full companies out of business

The attached rules have gone through numerous iterations to become the current draft of proposed rule changes. The main concept of the rule changes was to recommended moving bulkheads landward of their current allowable alignment and allowing more flexibility in the riprap and groin placement. After discussions of these concepts in the I&S Committee, staff were asked to evaluate the implications of aligning bulkheads 5 feet landward of normal high water or normal water level with other sister agencies and field staff. The Division of Water Quality (DWQ) reviewed the recommended rule change and deemed it inconsistent with their Neuse and Tar-Pamlico Buffer rules because the change: reduces the area of the Water Quality Zone 1 Buffer by approximately 16% (DWQ Zone 1 is intended to be undisturbed vegetation); does not avoid or minimize impacts to the riparian buffer, one of the major components of any requested activity in DWQ's Neuse and Tar-Pamlico Buffer; and is no longer streambank stabilization. To avoid the conflict with DWQ, DCM staff recommended aligning bulkheads with normal high water or normal water level line instead of the 5 feet landward. The I&S Committee asked staff to continue their discussions with DWQ in hopes that this issue could be resolved. As such, the topic will continue being discussed at the CHPP Steering Committee Meeting on October 1, 2007, but at this time is still unresolved.

Proposed Rule Changes

The following are the proposed rule changes that have been modified/changed from the current/existing rules.

.1100 – GP for Bulkheads and Riprap

- “Riprap” has been changed to “riprap revetment.” After review of definitions, Riprap/Stone Revetment was redundant as stone is included in the term riprap.
- On non-wetland shorelines, new bulkheads shall approximate normal high water or normal water level instead of an average of 2 feet with a maximum of 5 feet waterward of normal high water or normal water level.
- On non-wetland shorelines, new bulkheads on manmade shorelines shall approximate an average of 2 feet with a maximum of 5 feet waterward of the normal high water or normal water level instead of an average of 5 feet with a maximum of 10 feet waterward of the normal high water or normal water level.
- On non-wetland shorelines, replacement bulkheads shall be a maximum of 2 feet waterward of the original alignment instead of average of 2 feet with a maximum of 5 feet waterward of normal high water or normal water level.
- On non-wetland shorelines, riprap placement shall be a maximum of 10 feet waterward of normal high water or normal water level instead of only 10 feet maximum when placed in front of a bulkhead
- Slope of riprap to a max flatness of 3H:1V from a of 2H:1V. This was the number one request from the marine contractors meetings held last February.
- The additional changes are to be consistent with other rules, to correct ambiguous language, or due to rearranging of rules.

.1400 – GP for Groin Placement

- Spacing changes on groin placement to 2 times the groin design length (maximum of 50 feet apart) from 2 per 100 feet of shoreline. This is to allow for more flexibility in the rule.

- Clarification changes on where to measure distances and lengths on groins.
- The additional changes are to be consistent with other rules, to correct ambiguous language, or due to rearranging of rules.

.2100 – GP for Marsh Enhancement Breakwaters

- “Marsh Enhancement Breakwater” has been changed to “Sheetpile Sill.” Because staff is reviewing the possibility of adding a new GP for Breakwaters without wetland vegetation, the terminology should be corrected so there isn’t confusion in the future.
- The additional changes are to be consistent with other rules, to correct ambiguous language, or due to rearranging of rules.

.2400 – GP for Placement of Riprap for Wetland Protection

- Maximum distance waterward to 6 feet from 5 feet. This was to allow for the maximum slope flatness be used and extend to a height of 2 feet.
- Slope of riprap requirements were added to be a max flatness of 3H:1V and a max steepness of 1.5H:1V.
- The additional changes are to be consistent with other rules, to correct ambiguous language, or due to rearranging of rules.

**SECTION .1100 - GENERAL PERMIT FOR CONSTRUCTION OF BULKHEADS AND ~~THE~~
~~PLACEMENT OF RIPRAP~~ REVETMENTS FOR SHORELINE PROTECTION IN ESTUARINE AND
PUBLIC TRUST WATERS AND OCEAN HAZARD AREAS**

15A NCAC 07H .1101 PURPOSE

A permit under this Section shall allow the construction of bulkheads and ~~the placement of riprap~~ riprap revetments for shoreline protection in the public trust waters and estuarine waters AECs according to authority provided in Subchapter 07J .1100 and according to the Rules in this Section. This permit shall not apply to shoreline protection along the oceanfront or to waters and shorelines adjacent to the Ocean Hazard AEC with the exception of those shorelines that feature characteristics of the Estuarine Shoreline AEC. Such features include the presence of wetland vegetation, lower wave energy and lower erosion rates than the adjoining Ocean Erodible Area.

*History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b); 113A-118.1; 113A-124;
Eff. March 1, 1984;
Amended Eff. April 1, 2003.*

15A NCAC 07H .1102 APPROVAL PROCEDURES

(a) The applicant shall contact the Division of Coastal Management and complete an application form requesting approval for development. The applicant shall provide information on site location, dimensions of the project area, and ~~his~~ the applicant's name and address.

(b) The applicant shall provide:

- (1) ~~-confirmation~~ that a written statement has been obtained signed by the adjacent riparian property owners indicating that they have no objections to the proposed work; or
- (2) ~~-confirmation~~ that the adjacent riparian property owners have been notified by certified mail of the proposed work. Such notice shall instruct adjacent property owners to provide written comments on the proposed development to the Division of Coastal Management within ten (10) days of receipt of the notice, and, indicate that no response shall be interpreted as no objection. ~~DCM staff~~ The Division of Coastal Management shall review all comments and determine, based on their relevance to the potential impacts of the proposed project, if the proposed project can be approved by a General Permit. If ~~DCM staff~~ the Division of Coastal Management determines that the project exceeds the guidelines established by the General Permit Process, the applicant shall be notified that ~~he must submit~~ an application for a major development permit shall be required.

(c) No work shall begin until an on-site meeting is held with the applicant and appropriate Division of Coastal Management representatives so that the proposed ~~bulkhead~~ alignment can be ~~appropriately~~ marked. Written authorization to proceed with the proposed development may be issued during this visit. Construction of the bulkhead or riprap ~~structure~~ revetment shall be completed within ~~90~~ 120 days of ~~this visit~~ issuance of the permit or the general authorization shall expire and it shall be necessary to re-examine the alignment to determine if the general authorization can be reissued.

*History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b); 113A-118.1; 113A-124;
Eff. March 1, 1984;
Amended Eff. September 1, 2006; January 1, 1990; December 1, 1987.*

15A NCAC 07H .1103 PERMIT FEE

The applicant shall pay a permit fee of two hundred dollars (\$200.00) for riprap revetments and bulkheads ~~structures~~ sited at or above normal high water or normal water level, or a permit fee of four hundred dollars (\$400.00) for bulkhead and riprap ~~revetments structures~~ sited below normal high water or normal water level. Permit fees shall be paid by check or money order payable to the Department.

*History Note: Authority G.S. 113A-107; 113A-113(b); 113A-118.1; 113A-119; 113-119.1; 113A-124;
Eff. March 1, 1984;
Amended Eff. September 1, 2006; August 1, 2000; March 1, 1991.*

15A NCAC 07H .1104 GENERAL CONDITIONS

- (a) This permit authorizes only the construction of bulkheads and ~~the placement of~~riprap revetments conforming to the standards herein.
- (b) Individuals shall allow authorized representatives of the Department of Environment, ~~Health,~~ and Natural Resources to make periodic inspections at any time deemed necessary in order to ~~be sure~~ ensure that the activity being performed under authority of this general permit is in accordance with the terms and conditions prescribed herein.
- (c) There shall be no ~~significant~~ interference with ~~the navigation or~~ use of the waters by the public by the existence of the bulkhead or the riprap revetment authorized herein. Bulkheads and riprap revetments authorized in this Rule shall not interfere with the established or traditional rights of navigation of the waters by the public.
- (d) This permit ~~will~~ shall not be applicable to proposed construction where the ~~Department~~ Division of Coastal Management has determined, based on an initial review of the application, that notice and review pursuant to G.S. 113A-119 is necessary because there are unresolved questions concerning the proposed activity's impact on adjoining properties or on water quality; air quality; coastal wetlands; cultural or historic sites; wildlife; fisheries resources; or public trust rights.
- (e) This permit ~~does~~ shall not eliminate the need to obtain any other required state, local, or federal authorization.
- (f) Development carried out under this permit ~~must~~ shall be consistent with all local requirements, AEC rules, and local land use plans current at the time of authorization.

History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b); 113A-118.1; 113A-124;
Eff. March 1, 1984;
Amended Eff. May 1, 1990; December 1, 1987;
RRC Objection due to ambiguity Eff. May 19, 1994;
Amended Eff. August 1, 1998; July 1, 1994.

15A NCAC 07H .1105 SPECIFIC CONDITIONS

- ~~(a) This general permit is applicable only along shorelines void of wetland vegetation including marsh grass and wooded swamp, or where all construction is to be accomplished landward of such vegetation.~~
- ~~(b) Bulkheads and riprap material shall be positioned as follows:~~
- ~~(1) Bulkheads shall be positioned so as not to exceed more than an average distance of 2 feet waterward of the normal high water mark, or the normal water level contour, whichever is applicable. In no case shall the bulkhead be positioned more than 5 feet waterward of the normal high water or normal water level contour at any point along its alignment.~~
 - ~~(2) Riprap shall be positioned so as not to exceed a maximum of 5 feet waterward of the mean high water mark or normal water level contour at any point along its alignment. Where there is an existing bulkhead structure, riprap shall be allowed to extend a maximum of 10 feet offshore. This location standard shall take into consideration the height of the area to be protected (i.e. bulkhead height, water depth) and the alignment shall allow for a slope no flatter than 2 feet horizontal per 1 foot vertical and no steeper than 1½ feet horizontal per 1 foot vertical.~~
- ~~(c) Along shorelines within upland basins, canals, and ditches, bulkheads or riprap material must be positioned so as not to exceed more than an average distance of 5 feet waterward of the normal high water mark or the normal water level contour, whichever is applicable. In no case shall the bulkhead or riprap be positioned more than 10 feet waterward of the normal high water or normal water level contour at any point along its alignment. For the purpose of these Rules, the Atlantic Intracoastal Waterway (AIWW) is considered a natural shoreline and development shall occur as described in 07H .1105(b).~~
- ~~(d) Construction authorized by this general permit shall be limited to a maximum shoreline length of 500 feet.~~
- ~~(e) All backfill material shall be obtained from an upland source.~~
- ~~(f) The bulkhead shall be constructed, or the riprap shall be in place prior to any backfilling activities.~~
- ~~(g) The bulkhead or riprap shall be structurally tight so as to prevent seepage of backfill materials through the structure.~~
- ~~(h) Riprap material shall be free from loose dirt or any other pollutant. It shall be of a size sufficient to prevent its movement from the site by wave or current action.~~
- ~~(i) Riprap material shall consist of clean rock or masonry materials such as but not limited to granite or broken concrete. Materials such as tires, car bodies, scrap metal, paper products, tree limbs, wood debris, organic material or similar material, are not considered riprap.~~

~~(j) The bulkhead shall be solid and constructed of treated wood, concrete slabs, metal sheet piles or other suitable materials approved by department personnel. No excavation is permitted except for that which may be required for the construction of the bulkhead wall, riprap, deadmen cables, etc. This permit does not authorize any excavation waterward of the approved alignment.~~

~~(k) Bulkheads or riprap shall not extend beyond established alignments nor restrict the original width of the canal or basin.~~

~~(l) If one contiguous acre or more of property is to be excavated or filled, an erosion and sedimentation control plan shall be filed with the Division of Land Resources, Land Quality Section, or appropriate local government having jurisdiction. This plan shall be approved prior to commencing the land-disturbing activity.~~

~~(a) Along shorelines void of wetland vegetation:~~

~~(1) New bulkheads shall have an average approximation of normal high water or normal water level. The bulkhead position shall not exceed a distance of 5 feet waterward of normal high water or normal water level at any point along its alignment.~~

~~(2) New bulkheads or riprap revetments on shorelines within manmade upland basins, canals, and ditches, shall be positioned so as not to exceed an average distance of two (2) feet and maximum distance of five (5) feet waterward of normal high water or normal water level.~~

~~(3) When replacing an existing bulkhead, the new alignment shall be positioned so as not to exceed a maximum distance of two (2) feet waterward of the current bulkhead alignment. To tie into a like structure on the adjacent property, replacement bulkhead position shall not exceed a maximum distance of five (5) feet waterward of the current bulkhead alignment. When replacing a bulkhead where lands landward of the bulkhead were lost in the last year, bulkheads shall be positioned a maximum of two (2) feet waterward of the original/existing alignment.~~

~~(4) Riprap revetments shall be positioned so as not to exceed a maximum distance of 10 feet waterward of the normal high water or normal water level at any point along its alignment~~

~~(b) Along shorelines with wetland vegetation, bulkheads and riprap revetments shall be positioned so that all construction is to be accomplished landward of such vegetation.~~

~~(c) Bulkheads shall be constructed of vinyl, or steel sheet pile, concrete, stone, timber, or other suitable materials approved by the Division of Coastal Management.~~

~~(d) Riprap revetments shall be constructed of granite, marl, concrete without exposed rebar, or other suitable materials approved by the Division of Coastal Management.~~

~~(e) Revetment material shall be free from loose dirt or other pollutants~~

~~(f) Revetment material shall be of sufficient size to prevent movement from the site by wave action or currents.~~

~~(g) Construction design for riprap revetments shall take into consideration the height of the area to be protected (i.e. bulkhead height, escarpment height, water depth) and the alignment shall allow for a slope no flatter than three (3) horizontal per one (1) foot vertical and no steeper than 1 ½ feet horizontal per one (1) foot vertical.~~

~~(h) All backfill material shall be obtained from an upland source pursuant to 15A NCAC 07H .0208. The bulkhead or riprap revetment shall be constructed prior to any backfilling activities and shall be structurally tight so as to prevent seepage of backfill materials through the structure.~~

~~(i) No excavation, grading or fill shall be permitted except for that which may be required for the construction of the bulkhead and/or riprap revetment. This permit shall not authorize any excavation waterward of the approved alignment.~~

~~(j) Runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters. Appropriate sedimentation and erosion control devices, measures or structures shall be implemented to ensure that eroded materials do not enter adjacent wetlands, watercourses and property (e.g. silt fence, diversion swales or berms, sand fence, etc.).~~

~~(k) If one contiguous acre or more of property is to be excavated or filled, an erosion and sedimentation control plan shall be filed with the Division of Land Resources, Land Quality Section, or appropriate local government having jurisdiction. This plan shall be approved prior to commencing the land-disturbing activity.~~

~~(l) For the purpose of these Rules, the Atlantic Intracoastal Waterway (AIWW) is considered a natural shoreline.~~

~~(m) Construction authorized by this general permit shall be limited to a maximum shoreline length of 500 feet.~~

*History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b); 113A-118.1; 113A-124;
Eff. March 1, 1984;
Amended Eff. April 1, 2005; December 1, 1991; January 1, 1989; December 1, 1987.*

**SECTION .1400 - GENERAL PERMIT FOR CONSTRUCTION OF ~~WOODEN~~ GROINS IN ESTUARINE
AND PUBLIC TRUST WATERS AND OCEAN HAZARD AREAS**

15A NCAC 07H .1401 PURPOSE

A permit under this section shall allow the construction of ~~wooden and riprap~~ groins in the estuarine and public trust waters AECs according to the authority provided in Subchapter 07J .1100 and according to the rules in this Section. This general permit shall not apply to the oceanfront shorelines or to waters and shorelines adjacent to the Ocean Hazard AEC with the exception of those shorelines that feature characteristics of the Estuarine Shoreline AEC. Such features include the presence of wetland vegetation, lower wave energy, and lower erosion rates than the adjacent Ocean Erodible Area.

History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b); 113A-118.1; 113A-124;
Eff. March 1, 1984;
Temporary Amendment Eff. December 1, 2002;
Amended Eff. August 1, 2004; April 1, 2003.

15A NCAC 07H .1402 APPROVAL PROCEDURES

(a) The applicant ~~must~~ shall contact the Division of Coastal Management and complete an application form requesting approval for development. The applicant shall provide information on site location, dimensions of the project area, and ~~his~~ the applicant's name and address. ~~Such notice shall instruct adjacent property owners to provide written comments on the proposed development to the Division of Coastal Management within 10 days of receipt of the notice. The notice shall also indicate that no response shall be interpreted as no objection.~~

(b) The applicant ~~must~~ shall provide:

- (1) ~~-confirmation that a written statement has been obtained signed by the adjacent riparian property owners indicating that they have no objections to the proposed work; or~~
- (2) ~~-confirmation that the adjacent riparian property owners have been notified by certified mail of the proposed work. Such notice shall instruct adjacent property owners to provide written comments on the proposed development to the Division of Coastal Management within ten (10) days of receipt of the notice, and -The notice shall also indicate that no response shall be interpreted as no objection. DCM staff~~ The Division of Coastal Management shall review all comments and determine, based on their relevance to the potential impacts of the proposed project, if the proposed project can be approved by a General Permit. If the Division of Coastal Management determines that the project exceeds the guidelines established by the General Permit Process, the applicant shall be notified that an application for a major development permit shall be required.

(c) ~~Approval of individual projects shall be acknowledged in writing by the Division of Coastal Management and the applicant shall be provided a copy of this Section. No work shall begin until an on-site meeting is held with the applicant and appropriate Division of Coastal Management representative(s) so that the proposed groin alignment can be marked. Written authorization to proceed with the proposed development may be issued during the visit. Construction of the groin shall be completed within 120 days of issuance of the permit or the general authorization shall expire and it shall be necessary to re-examine the alignment if the general authorization can be reissued.~~

(d) ~~Construction must be completed within 90 days of the approval of the permit or the permit expires.~~

History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b); 113A-118.1; 113A-124;
Eff. March 1, 1984;
Amended Eff. August 1, 2004; May 1, 1990; January 1, 1990.

15A NCAC 07H .1403 PERMIT FEE

The applicant shall pay a permit fee of two hundred dollars (\$200.00) by check or money order payable to the Department.

History Note: Authority G.S. 113A-107; 113A-113(b); 113A-118.1; 113A-119; 113A-119.1; 113A-124;
Eff. March 1, 1984;
Amended Eff. September 1, 2006; August 1, 2000; March 1, 1991.

15A NCAC 07H .1404 GENERAL CONDITIONS

- (a) Structures authorized by a general permit in this Section shall be ~~timber, wooden- sheetpile,~~ or riprap groins conforming to the standards in this Rule.
- (b) Individuals shall allow authorized representatives of the Department of Environment and Natural Resources to make periodic inspections at any time deemed necessary in order to ~~be sure~~ensure that the activity being performed under authority of this general permit is in accordance with the terms and conditions prescribed herein.
- (c) The placement of ~~wooden or riprap~~ groins authorized in this Rule shall not interfere with the established or traditional rights of navigation of the waters by the public.
- (d) This permit shall not be applicable to proposed construction where the ~~Department~~Division of Coastal Management has determined, based on an initial review of the application, that notice and review pursuant to G.S. 113A-119 is necessary because there are unresolved questions concerning the proposed activity's impact on adjoining properties or on water quality; air quality; coastal wetlands; cultural or historic sites; wildlife; fisheries resources; or public trust rights.
- (e) This permit ~~does shall~~ not eliminate the need to obtain any other required state, local, or federal authorization.
- (f) Development carried out under this permit ~~must shall~~ be consistent with all local requirements, AEC rules, and local land use plans current at the time of authorization.

History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b); 113A-118.1; 113A-124;
Eff. March 1, 1984;
Amended Eff. May 1, 1990;
RRC Objection due to ambiguity Eff. May 16, 1994;
Amended Eff. August 1, 1998; July 1, 1994;
Temporary Amendment Eff. December 1, 2002;
Amended Eff. August 1, 2004.

15A NCAC 07H .1405 SPECIFIC CONDITIONS

- (a) Groins shall be perpendicular to the shoreline and shall not extend more than 25 feet waterward of the normal high water or normal water level.
- (b) Riprap groins shall not exceed a base width of ~~ten (10)~~ feet.
- (c) Groins shall be set back at least 15 feet from the ~~adjoining riparian access diving line~~property lines as measured from the closest point of the structure. This setback may be waived by written agreement of the adjacent riparian owner(s) or when two adjoining riparian owners are co-applicants. Should the adjacent property be sold before construction of the groin commences, the applicant shall obtain a written agreement with the new owner waiving the minimum setback and submit it to the ~~permitting agency~~Division of Coastal Management prior to initiating any development of the groin.
- (d) The height of ~~wooden sheetpile~~ groins shall not exceed ~~one (1)~~ foot above normal high water or the normal water level and the height of riprap groins shall not exceed ~~two (2)~~ feet above normal high water or the normal water level.
- (e) ~~Riprap groins shall be constructed of materials~~ Material used for groin construction shall be free from loose dirt or any other ~~pollutant~~pollutant. ~~It~~Groin material must be of sufficient size to prevent its movement from the site by wave ~~action~~ or ~~current action~~currents.
- (f) ~~The riprap material must consist of clean rock or masonry materials such as, but not limited to, granite or broken concrete.~~
- (g) ~~No more than two structures shall be allowed per 100 feet of shoreline unless the applicant can provide evidence that more structures are needed for shoreline stabilization.~~Structure spacing shall be two (2) times the groin length as measured from the centerline of the structure. Spacing may be less than 2 times the groin length around channels, docking facilities, boat lifts, or boat ramps and when positioned to prevent sedimentation or accretion in a particular area.
- (h) "L" and "T" sections shall not be allowed at the end of groins.
- (i) Groins shall be constructed of granite, marl, concrete without exposed rebar, timber, vinyl sheet pile, steel sheet pile or other suitable materials approved by the Division of Coastal Management.

History Note: Authority G.S. 113A-107(a); 113A-107(b); 113A-113(b); 113A-118.1; 113A-124;
Eff. March 1, 1984;
Temporary Amendment Eff. December 1, 2002;

Amended Eff. August 1, 2004.

SECTION .2100 - GENERAL PERMIT FOR CONSTRUCTION OF ~~MARSH ENHANCEMENT BREAKWATERS SHEETPILE SILL~~ FOR SHORELINE PROTECTION IN ESTUARINE AND PUBLIC TRUST WATERS AND OCEAN HAZARD AREAS

15A NCAC 07H .2101 PURPOSE

A general permit pursuant to this Section shall allow the construction of offshore parallel ~~breakwaters~~sheetpile sills, ~~made constructed~~ from ~~wood, plastic lumber, or metal timber, vinyl, or steel sheet piling sheetpiles~~ for shoreline protection in conjunction with existing or created coastal wetlands. This permit shall only be applicable ~~where a shoreline is experiencing erosion~~ in public trust areas and estuarine waters according to authority provided in 15A NCAC 07J .1100 and according to the procedures and conditions outlined in this subchapter. This permit shall not apply to oceanfront shorelines or to waters and shorelines adjacent to the Ocean Hazard AEC with the exception of those shorelines that feature characteristics of Estuarine Shorelines. Such features include the presence of wetland vegetation, lower wave energy, and lower erosion rates than in adjoining Ocean Erodible Area.

*History Note: Authority G.S. 113A-107; 113A-118.1;
Eff. June 1, 1994;
Amended Eff. April 1, 2003; August 1, 2000.*

15A NCAC 07H .2102 APPROVAL PROCEDURES

(a) The applicant shall contact the Division of Coastal Management and request approval for development. The applicant shall provide information on site location, dimensions of the project area, and ~~his~~the applicant's name and address.

(b) The applicant ~~t~~ shall provide:

- (1) ~~-~~confirmation that a written statement has been obtained signed by the adjacent riparian property owners indicating that they have no objections to the proposed work; or
- (2) ~~-~~confirmation that the adjacent riparian property owners have been notified by certified mail of the proposed work. Such notice shall instruct adjacent property owners to provide written comments on the proposed development to the Division of Coastal Management within ten (10) days of receipt of the notice, and, indicate that no response shall be interpreted as no objection. ~~DCM staff~~The Division of Coastal Management shall review all comments and determine, based on their relevance to the potential impacts of the proposed project, if the proposed project can be approved by a General Permit. If ~~DCM staff~~the Division of Coastal Management determines that the project exceeds the guidelines established by the General Permit Process, the applicant shall be notified that ~~he must submit~~ an application for a major development ~~permit~~permit shall be required.

(c) No work shall begin until an on-site meeting is held with the applicant and appropriate Division of Coastal Management representatives so that the proposed breakwatersill alignment can be ~~appropriately~~ marked. Written authorization to proceed with the proposed development may be issued during this visit. Construction of the breakwatersill shall be completed within ~~90~~120 days of ~~this visit~~issuance of the permit or the general authorization shall expire and it shall be necessary to re-examine the alignment to determine if the general authorization can be reissued.

*History Note: Authority G.S. 113A-107; 113A-118.1;
Eff. June 1, 1994;
Amended Eff. September 1, 2006; August 1, 2000.*

15A NCAC 07H .2103 PERMIT FEE

The applicant shall pay a permit fee of two hundred dollars (\$200.00). This fee shall be paid by check or money order made payable to the Department.

*History Note: Authority G.S. 113A-107; 113A-118.1; 113A-119.1;
Eff. June 1, 1994;
Amended Eff. September 1, 2006; August 1, 2000.*

15A NCAC 07H .2104 GENERAL CONDITIONS

- (a) This permit authorizes only the construction of breakwatersills conforming to the standards herein.
- (b) Individuals shall allow authorized representatives of the Department of Environment and Natural Resources to make periodic inspections at any time deemed necessary in order to be sureensure that the activity being performed under authority of this general permit is in accordance with the terms and conditions prescribed herein.
- (c) The placement of breakwatersills authorized in this Rule shall not interfere with the established or traditional rights of navigation of the waters by the public. There shall be no significant interference with navigation or use of the waters by the public by the existence of the breakwater authorized herein.
- (d) This permit will shall not be applicable to proposed construction where the DepartmentDivision of Coastal Management has determined, based on an initial review of the application, that notice and review pursuant to G.S. 113A-119 is necessary because there are unresolved questions concerning the proposed activity's impact on adjoining properties or on water quality; air quality; coastal wetlands; cultural or historic sites; wildlife; fisheries resources; or public trust rights.
- (e) This permit does shall not eliminate the need to obtain any other required state, local, or federal authorization.
- (f) Development carried out under this permit must shall be consistent with all local requirements, AEC rules, and local land use plans current at the time of authorization.

History Note: Authority G.S. 113A-107; 113A-118.1;
RRC Objection due to ambiguity Eff. May 19, 1994;
Eff. July 1, 1994;
Amended Eff. August 1, 1998.

15A NCAC 07H .2105 SPECIFIC CONDITIONS

- (a) The breakwatersill shall be positioned no more than 20 feet waterward of the mean-normal high water or normal water level contour (whichever is applicable) or 20 feet waterward of the waterward edge of existing wetlands at any point along its alignment. For narrow waterbodies (canals, creeks, etc.) the breakwatersill alignment shall not be positioned offshore more than one sixth (1/6) the width of the waterbody.
- (b) BreakwaterSills authorized under this General Permit shall be allowed only in waters that average less than three (3) feet in depth along the proposed alignment as measured from the mean-normal high water or normal water level-contour-level.
- (c) Where Departmentthe Division of Coastal Management Staff determines that insufficient wetland habitat exists along the permittee's shoreline to provide adequate shoreline stabilization, the permittee shall be required to plant appropriate wetland species landward of the breakwatersill structure as directed by Departmentthe Division of Coastal Management Staff.
- (d) Construction authorized by this general permit will shall be limited to a maximum length of 500 feet.
- (e) The breakwatersill shall be constructed with an equal gap between each sheathing board totaling at least one inch of open area every linear foot of breakwatersill. The breakwatersill shall have at least one five (5) foot opening at every 100 feet. The breakwatersill sections shall be staggered and overlap as long as the five-footfive-foot separation between sections is maintained. Overlapping sections shall not overlap more than 10 feet.
- (f) The height of the breakwatersill shall not exceed six inches above mean-normal high water or the normal water level.
- (g) Offshore breakwatersill sections shall be set back 15 feet from the adjoining property lines and the riparian access dividing line. The line of division of riparian access shall be established by drawing a line along the channel or deep water in front of the property, then drawing a line perpendicular to the line of the channel so that it intersects with the shore at the point the upland property line meets the water's edge. The set back may be waived by written agreement of the adjacent riparian owner(s) or when the two adjoining riparian owners are co-applicants. Should the adjacent property be sold before construction of the breakwatersill begins, the applicant shall obtain a written agreement with the new owner waiving the minimum setback and submit it to the Division of Coastal Management prior to initiating any construction of the breakwatersill.
- (h) BreakwaterSills shall be marked at 50-foot50-foot intervals with yellow reflectors extending at least three feet above mean high water.
- (i) No backfill of the breakwatersill or any other fill of wetlands, estuarine waters, public trust areas, or highground is authorized by this general permit.
- (j) No excavation of the shallow water bottom, any wetlands, or high ground is authorized by this general permit.

(k) The ~~breakwatersill must be constructed of treated wood, plastic lumber, metal sheet shall be constructed of vinyl, or steel sheet pile, formed concrete, timber, or other suitable materials approved by the Division of Coastal Management. piles or materials approved as similar by Department personnel.~~

(l) Perpendicular sections, return walls, or sections ~~which that~~ would enclose estuarine waters or public trust areas shall not be allowed under this permit.

(m) The permittee will maintain the ~~breakwatersill~~ in good condition and in conformance with the terms and conditions of this permit or the remaining ~~breakwatersill~~ structure shall be removed within 90 days of notification from the Division of Coastal Management.

*History Note: Authority G.S. 113A-107; 113A-118.1;
Eff. June 1, 1994;
Amended Eff. August 1, 2000.*

**SECTION .2400 – GENERAL PERMIT FOR PLACEMENT OF RIPRAP FOR WETLAND PROTECTION
IN ESTUARINE AND PUBLIC TRUST WATERS**

15A NCAC 07H .2401 PURPOSE

The general permit for placement riprap for wetland protection in estuarine and public trust waters shall allow the placement of riprap immediately adjacent to and waterward of wetlands. This permit shall only be applicable where a shoreline is experiencing erosion in public trust areas and estuarine waters according to authority provided in 15A NCAC 07J .1100 and according to the rules in this Section. This permit shall not apply to oceanfront shorelines or to waters and shorelines adjacent to the Ocean Hazard AEC with the exception of those portions of shoreline that feature characteristics of Estuarine Shorelines. Such features include the presence of wetland vegetation, lower wave energy, and lower erosion rates than in the adjoining Ocean Erodible Area.

*History Note: Authority G.S. 113A-107; 113A-118.1;
Eff. August 1, 2000;
Amended Eff. April 1, 2003.*

15A NCAC 07H .2402 APPROVAL PROCEDURES

(a) The applicant ~~must~~shall contact the Division of Coastal Management and request approval for development. The applicant shall provide information on site location, dimensions of the project area, and ~~his~~the applicant's name and address.

(b) The applicant must provide:

- (1) ~~-confirmation that a written statement has been obtained signed by the adjacent riparian property owners indicating that they have no objections to the proposed work; or~~
- (2) ~~-confirmation that the adjacent riparian property owners have been notified by certified mail of the proposed work. Such notice shall instruct adjacent property owners to provide any comments on the proposed development in writing for consideration by permitting officials to the Division of Coastal Management within ten (10) days of receipt of the notice, and, indicate that no response shall will be interpreted as no objection. DCM staff~~The Division of Coastal Management shall will review all comments and determine, based on their relevance to the potential impacts of the proposed project, if the proposed project can be approved by a General Permit. If DCM staff~~the Division of Coastal Management finds that the comments are worthy of more in-depth review, determines that the project exceeds the guidelines established by the General Permit Process, the applicant shall will be notified that he must submit~~an application for a major development permit shall be required.

~~(c) DCM staff shall review all comments and determine, based on their relevance to the potential impacts of the proposed project, if the proposed project meets the requirements of the rules in this Section. If DCM staff finds that the comments are worthy of more in-depth review, the applicant shall be notified that he must submit an application for a major development permit.~~

~~(d)~~(c) No work shall begin until an on-site meeting is held with the applicant and appropriate Division of Coastal Management representatives so that the wetland protection structure can be ~~appropriately~~ marked. Written authorization to proceed with the proposed development may be issued during this visit. Construction of the wetland protection structure must be completed within ~~90~~120 days of ~~this visit~~issuance of the permit or the general authorization expires and it shall be necessary to re-examine the alignment to determine if the general authorization can be reissued.

*History Note: Authority G.S. 113A-107; 113A-118.1;
Eff. August 1, 2000.*

15A NCAC 07H .2403 PERMIT FEE

The applicant shall pay a permit fee of two hundred dollars (\$200.00). This fee shall be paid by check or money order made payable to the Department.

*History Note: Authority G.S. 113A-107; 113A-118.1; 113A-119.1;
Eff. August 1, 2000;
Amended Eff. September 1, 2006.*

15A NCAC 07H .2404 GENERAL CONDITIONS

- (a) This permit authorizes only the construction of wetland protection structures conforming to the standards herein.
- (b) Individuals shall allow authorized representatives of the Department of Environment and Natural Resources (~~DENR~~) to make periodic inspections at any time deemed necessary in order to ~~be sure~~ ensure that the activity being performed under authority of this general permit is in accordance with the terms and conditions prescribed herein.
- (c) ~~The placement of riprap authorized in this Rule shall not interfere with the established or traditional rights of navigation of the waters by the public. There shall be no unreasonable interference with navigation or use of the waters by the public by the existence of the riprap structure authorized herein.~~
- (d) This permit shall not be applicable to proposed construction where the ~~Department~~ Division of Coastal Management has determined, based on an initial review of the application, that notice and review pursuant to G.S. 113A-119 is necessary because there are unresolved questions concerning the proposed activity's impact on adjoining properties or on water quality; air quality; coastal wetlands; cultural or historic sites; wildlife; fisheries resources; or public trust rights.
- (e) This permit ~~shall does~~ not eliminate the need to obtain any other required state, local, or federal authorization.
- (f) Development carried out under this permit ~~shall must~~ be consistent with all local requirements, AEC Guidelines, and local land use plans current at the time of authorization.

History Note: Authority G.S. 113A-107; 113A-118.1;
Eff. August 1, 2000.

15A NCAC 07H .2405 SPECIFIC CONDITIONS

- (a) This general permit shall only be applicable along shorelines possessing wetlands, ~~and~~ which exhibit an identifiable ~~erosion~~ escarpment.
- (b) ~~The structure shall be constructed of granite, marl, riprap, concrete without exposed rebar, or other suitable materials approved by the Division of Coastal Management.~~
- (~~b~~)(c) The height of the erosion escarpment shall not exceed three feet.
- (~~e~~)(d) The riprap shall be placed immediately waterward of the erosion escarpment.
- (~~d~~)(e) The riprap ~~must shall~~ be positioned so as not to exceed a maximum of ~~five-six (6)~~ five-six (6) feet waterward of the erosion escarpment at any point along its ~~alignment~~ alignment with a slope no flatter than 3 feet horizontal per 1 foot vertical and no steeper than 1 ½ feet horizontal per 1 foot vertical.
- (~~e~~)(f) The riprap ~~must shall~~ be positioned so as not to exceed a maximum of six inches above the elevation of the adjacent wetland substrate.
- (~~f~~)(g) Where ~~Department staff~~ the Division of Coastal Management determines that insufficient wetlands ~~or coastal marsh~~ vegetation exists along the permittee's shoreline to provide adequate shoreline stabilization, the permittee shall be required to plant appropriate ~~coastal marsh or wetland species~~ wetland vegetation landward of the riprap structure as directed by ~~Department staff~~ the Division of Coastal Management.
- (~~e~~)(h) Construction authorized by this general permit will be limited to a maximum length of 500 feet.
- (~~b~~)(i) No backfill or any other fill of wetlands, submerged aquatic vegetation, estuarine waters, public trust areas, or highground areas is authorized by this general permit.
- (~~i~~)(j) No excavation of the shallow water bottom, any wetlands, or high ground is authorized by this general permit.
- (j) ~~The riprap must not be placed in such a manner as to impede water flow into or out of any natural channel or stream.~~
- (k) ~~The riprap~~ Riprap material ~~used for construction must shall~~ be free from loose dirt or any ~~pollutant~~ pollutant and ~~be. It must be~~ of a size sufficient to prevent its movement from the site by wave ~~action~~ or ~~current~~ action. ~~currents.~~
- (l) ~~Riprap material must consist of clean rock or masonry materials such as marl, granite or broken concrete. Materials such as tires, car bodies, scrap metal, paper products, tree limbs, wood debris, organic material or similar materials are not appropriate riprap for the purposes of this General Permit.~~
- (~~m~~)(l) If the crossing of wetlands with mechanized or non-mechanized construction equipment is necessary, temporary construction mats shall be utilized for the area(s) to be crossed. The temporary mats shall be removed immediately upon completion of construction of the riprap structure.
- (~~m~~)(m) The permittee shall maintain the structure in good condition and in conformance with the terms and conditions of this permit or the remaining riprap structure shall be removed within 90 days of notification from the Division of Coastal Management.

History Note: Authority G.S. 113A-107; 113A-118.1;
Eff. August 1, 2000.