

15A NCAC 02H .1005 STORMWATER REQUIREMENTS: COASTAL COUNTIES

(a) The following definitions are applicable to this rule:

(1) "Built upon area" as defined in Session Law 2006-246 means that portion of a project that is covered by impervious or partially impervious surface including , but not limited to, buildings; pavement and gravel areas such as roads, parking lots, and paths; and recreation facilities such as tennis courts. "Built upon area" does not include a wooden slatted deck, the water area of a swimming pool, or pervious or partially pervious paving material to the extent that the paving material absorbs water or allows water to infiltrate through the paving material.

(2) "Discrete Stormwater collection system" as defined in 15A NCAC 2H .1002(18) means any conduit, pipe, channel, curb or gutter for the primary purpose of transporting (not treating) runoff. A stormwater collection system does not include vegetated swales, swales stabilized with armoring or alternative methods where natural topography or other physical constraints prevents the use of vegetated swales (subject to case-by-case review), curb outlet systems, or pipes used to carry drainage underneath built-upon surfaces that are associated with development controlled by the provisions of Rule .1003(d)(1) in this Section.

(3) "Vegetative buffer" as defined in 15A NCAC 2H .1002(22) means an area of natural or established vegetation directly adjacent to surface waters through which stormwater runoff flows in a diffuse manner to protect surface waters from degradation due to development activities. The width of a buffer is measured horizontally from the normal pool elevation of impounded structures, from the bank of each side of streams or rivers, and from the mean high water line of tidal waters, perpendicular to the shoreline. [Add a sentence here specifying the flexibility DWQ already gives and intends be continued here re what activities can be carried out in these buffers, and minimum vegetation requirements, etc.]

(4) "Vegetative conveyance" means a permanent, designed waterway lined with vegetation that is used to convey stormwater runoff at a non-erosive velocity within or away from a developed area.

(5) "Vegetative filter" as defined in 15A NCAC 2H .1002(23) means an area of natural or planted vegetation through which stormwater runoff flows in a diffuse manner so that the runoff does not become channelized and which provides for control of stormwater runoff through infiltration of runoff and filtering of pollutants. The defined length of the filter shall be provided for in the direction of stormwater flow.

(b) With exception of NC Department of Transportation activities that shall be regulated in accordance with the provisions of that agency's existing NPDES Stormwater Permit, all non-residential development activities

1 within the coastal counties that will add more than 10,000 square feet of built upon area or that require a  
2 Sedimentation and Erosion Control Plan or a CAMA Major Development Permit and residential development  
3 activities, as defined in 15A NCAC 02B .0202(54), within the coastal counties that require a Sedimentation  
4 and Erosion Control Permit or a CAMA Major Development Permit shall manage stormwater runoff as  
5 follows:

6 (1) Development activities within the coastal counties draining to Outstanding Resource Waters  
7 (ORW) shall meet requirements contained in Rule .1007 of this Section and the provisions of  
8 SubPart (b)(2)(A)(i) of this Paragraph;

9 (2) Development activities within one-half mile of and draining to SA waters or within one-half  
10 mile of SA waters and draining to unnamed freshwater tributaries to SA waters must comply  
11 with either the requirements in Parts (b)(2)(A) and (b)(2)(C) of this Rule or the requirements  
12 in Parts (b)(2)(B) and (b)(2)(C) of this Rule:

13 (A) Low Density Option: Development shall be permitted pursuant to Rule .1003(d)(1)  
14 of this Section if the development has:

15 (i) Built-upon area of 122 percent or less (A project with an overall density at  
16 or below the low density threshold, but containing areas with a density  
17 greater than the overall project density, may be considered low density as  
18 long as the project meets or exceeds the requirements for low density  
19 development and locates the higher density in upland areas and away from  
20 surface waters and drainageways to the maximum extent  
21 practicableossible.);

22 (ii) Development within 575 feet of the mean high water line of areas  
23 designated by the Environmental Management Commission as Outstanding  
24 Resource Waters (ORW) shall be limited to a built upon area of 25 percent  
25 or less, however, development with a built upon area of greater than 122  
26 percent must comply with the requirements of SubPart (B) of this  
27 SubParagraph;

28 (iii) Stormwater runoff transported primarily by vegetated conveyances.  
29 (Conveyance system shall not include a discrete stormwater collection  
30 system as defined in Rule .1002 of this Section); and

31 (iv) A 50 foot wide vegetative buffer for new development activities and a 30  
32 foot wide vegetative buffer for redevelopment activities.

33 (v) A project may continue to qualify as low density for purposes of this  
34 subsection with built-upon area of up to 20 percent if stormwater runoff is

further controlled, managed and treated by any appropriate combination of on-site constructed wetlands, cisterns, rain barrels, rain gardens, or other innovative, low-tech stormwater controls that, in staff's Best Professional Judgment, will provide stormwater treatment and control equivalent to that from a 12 percent maximum built upon area project, taking into account all site circumstances. In order to qualify for such BPJ approval, it shall not be necessary for the project applicant to comply with all provisions of 15A NCAC 02H.1008. Use of pervious or porous pavement driveways and sidewalks is encouraged, and shall not be considered as built upon area for purposes of density calculations under this subsection (A).

(B) High Density Option: Higher density developments shall be permitted pursuant to Rule .1003(d)(2) of this Section if stormwater control systems meet the following criteria:

- (i) No direct outlet channels or pipes to SA waters unless permitted in accordance with 15A NCAC 02H .0126;
- (ii) Control systems ~~may~~must be comprised of any combination of infiltration systems, wet detention ponds, bioretention systems, constructed stormwater wetlands, sand filters, rain barrels, cisterns, rain gardens or alternative stormwater management systems designed in accordance with Rule .1008 of this Section that serve to effectively ~~to~~ control and treat the runoff from all surfaces generated by one and one-half inches of rainfall or the difference in the stormwater runoff from all surfaces from the predevelopment and post-development conditions for a one-year, 24-hour storm, whichever is greater. Alternatives as described in Rule .1008(h) of this Section may also be approved if they meet the requirements of this Part, (b)(2)(B), and Part (b)(2)(C) of this Rule;
- (iii) Runoff in excess of the design volume must flow overland through a vegetative filter designed in accordance with Rule .1008 of this Section with a minimum length of 50 feet measured from mean high water of SA waters; and
- (iv) A ~~350~~30 foot wide vegetative buffer for new and redevelopment ~~development~~ activities ~~and a 30 foot wide vegetative buffer for redevelopment activities.~~ [Note: Vegetative buffers and filters described herein (and in any other portions of this Rule), and any other buffers defined under other water

quality or coastal management rules applicable to the proposed project may be met concurrently, and may contain, in whole or in part, coastal or section 404 wetlands located landward of the normal water line.

(C) In addition to the other measures required in this Rule, all development activities, including both low and high density projects, shall prohibit new points of stormwater discharge to SA waters or expansion (increase in the volume of stormwater flow through conveyances or increase in capacity of conveyances) of existing stormwater conveyance systems that drain to SA waters. Any modification or redesign of a stormwater conveyance system within the contributing drainage basin must not increase the net amount or rate of stormwater discharge through existing outfalls to SA waters. Infiltration of stormwater runoff from the one-year, 24-hour storm or diffuse flow of stormwater at a non-erosive velocity to a vegetated buffer or other natural area ~~within the property boundary~~, that is capable of providing effective infiltration of the runoff from the one-year, 24-hour storm shall not be considered a direct point of stormwater discharge. Permit applicants shall take into consideration soil type, slope, vegetation, and existing hydrology when evaluating infiltration effectiveness.

(3) Development activities within the coastal counties except those areas defined in Subparagraphs (1) and (2) of this Paragraph:

(A) Low Density Option: Development shall be permitted pursuant to Rule .1003(d)(1) of this Section if the development has:

(i) Built-upon area of 24 percent or less (A project with an overall density at or below the low density threshold, but containing areas with a density greater than the overall project density, may be considered low density as long as the project meets or exceeds the requirements for low density development and locates the higher density in upland areas and away from surface waters and drainageways to the maximum extent possible.);

(ii) Stormwater runoff transported primarily by vegetated conveyances; (Conveyance system shall not include a ~~discrete~~ stormwater collection system as defined in Rule .1002 of this Section); and

(iii) A 50 foot wide vegetative buffer for new development activities and a 30 foot wide vegetative buffer for redevelopment activities.

(iv) A project may continue to qualify as low density for purposes of this subsection with built-upon area of up to 30 percent if stormwater runoff is

further controlled, managed and treated by any appropriate combination of on-site constructed wetlands, cisterns, rain barrels, rain gardens, or other innovative, low-tech stormwater controls that, in staff's Best Professional Judgment, will provide stormwater treatment and control equivalent to that from a 24 percent maximum built upon area project, taking into account all site circumstances. In order to qualify for such BPJ approval, it shall not be necessary for the project applicant to comply with all provisions of 15A NCAC 02H.1008. Use of pervious or porous pavement driveways and sidewalks is encouraged, and shall not be considered as built upon area for purposes of density calculations under this subsection (A).

(B) High Density Option: Higher density developments shall be permitted pursuant to Rule .1003(d)(2) of this Section if stormwater control systems meet the following criteria:

- (i) Control systems must be infiltration systems, wet detention ponds, bioretention systems, constructed stormwater wetlands, sand filters, or alternative stormwater management systems designed in accordance with Rule .1008 of this Section;
- (ii) Control systems must be designed to store, control and treat the stormwater runoff from all surfaces generated by one and one-half inch of rainfall; and
- (iii) A 50 foot wide vegetative buffer for new development activities and a 30 foot wide vegetative buffer for redevelopment activities.

(4) Structural stormwater controls required under this Rule shall meet the following criteria:

- (A) Remove an 85 percent average annual amount of Total Suspended Solids.
- (B) For detention ponds, draw down the treatment volume no faster than 48 hours, but no slower than 120 hours.
- (C) Discharge the storage volume at a rate equal to or less than the pre-development discharge rate for the one-year, 24-hour storm. and
- (D) Meet the General Engineering Design Criteria set forth in 15A NCAC 02H .1008(c).

(5) For the purposes of this Rule, areas defined as Coastal Wetlands under 15A NCAC 07H .0205 ~~all areas defined as jurisdictional wetlands (which means those wetlands that are subject to the jurisdiction of the US Army Corps of Engineers pursuant to Section 404 of the Clean Water Act) or isolated wetlands (as that term is used in 15A NCAC 02H .1301)~~ shall not be included in the overall project area to calculate impervious surface density. Stormwater runoff from built upon areas that is directed to flow through any wetlands at a

non-erosive velocity, ~~must flow through these wetlands in a diffuse manner with the use of a level spreader.~~

- (6) For structural stormwater controls that are required under this Rule and that require separation from the seasonal high-water table, a minimum separation of two feet is mandated. ~~This separation shall be provided by at least 12 inches of naturally occurring soil above the seasonal high water table with a minimum soil hydraulic conductivity of 0.52 inches per hour.~~

- (c) Residential development activities within the 20 Coastal Counties that are:

Are located within one-half mile and draining to SA waters,

have a built upon area greater than 12 percent,

do not require a stormwater management permit under Paragraph (b) of this Rule, and

will add more than 10,000 square feet of built upon area.

shall be exempt from this Rule's high density requirements if the proposed development elects to manage stormwater runoff by obtaining a reduced fee, express residential stormwater management permit that implements one of the measures specified in Subparagraphs (1), (2), or (3) below of this Paragraph:

(1) Install rain cisterns ~~or rain barrels~~ designed to collect all rooftop runoff from the one-year, 24-hour storm. ~~Rain barrels and~~ Cisterns shall be installed in such a manner as to facilitate the reuse of the collected rain water on site and shall be installed in such a manner that any overflow from these devices is directed to a vegetated area in a diffuse flow. In addition all uncovered driveways, uncovered parking areas, uncovered walkways and uncovered patios shall be constructed out of permeable pavement, or other pervious materials. For the purposes of this Rule, permeable pavement is defined as a paving material that allows for the infiltration of stormwater. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, and porous asphalt. Compacted gravel shall not be considered permeable pavement. Other pervious material includes wooden slatted decks; or

(2) Direct rooftop runoff from the one-year, 24-hour storm to an appropriately sized and designed rain garden. In addition all uncovered driveways, uncovered parking areas, uncovered walkways and uncovered patios shall be constructed out of permeable pavement, or other pervious materials. For the purposes of this Rule, permeable pavement is defined as a paving material that allows for the infiltration of stormwater. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, and porous asphalt. Compacted gravel shall not be considered permeable pavement. Other pervious material includes wooden slatted decks; or

(3) Install any other stormwater best management practice that meets the requirements of 15A NCAC 02H .1008 to control and treat the difference in the stormwater runoff from all built upon areas of the site from the predevelopment and post-development conditions for a one-year, 24-hour storm. [Exclude the more expensive and onerous requirements of .1008 for low-tech, innovative solutions on residential lots . . .]

(c) Residential development activities within the 20 Coastal Counties that are not within one-half mile and draining to SA waters that have a built-upon area greater than 24 percent and that do not require a stormwater management permit in accordance with Rule .1003 of this Section but that disturb more than 10,000 square feet of land shall manage stormwater runoff by implementing the following measures specified in Subparagraph (1), (2), or (3) of this Paragraph:

(1) — Install rain cisterns or rain barrels designed to collect all rooftop runoff from the first 1.5 inches of rainfall. Rain barrels and cisterns shall be installed in such a manner as to facilitate the reuse of the collected rain water on site and shall be installed in such a manner that any overflow from these devices is directed to a vegetated area in a diffuse flow. In addition all uncovered driveways, uncovered parking areas, uncovered walkways and uncovered patios shall be constructed out of permeable pavement, or other pervious materials. For the purposes of this Rule, permeable pavement is defined as a paving material that allows for the infiltration of stormwater. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, and porous asphalt. Compacted gravel shall not be considered permeable pavement. Other pervious material includes wooden slatted decks; or

(2) — Direct rooftop runoff from the first 1.5 inches of rain to an appropriately sized and designed rain garden. In addition all uncovered driveways, uncovered parking areas, uncovered walkways and uncovered patios shall be constructed out of permeable pavement, or other pervious materials. For the purposes of this Rule, permeable pavement is defined as a paving material that allows for the infiltration of stormwater. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, and porous asphalt. Compacted gravel shall not be considered permeable pavement. Other pervious material includes wooden slatted decks; or

(3) — Install any other stormwater best management practice that meets the requirements of 15A NCAC 02H .1008 to control and treat the stormwater runoff from the first 1.5 inches of rainfall for all built-upon areas of the site.

(d) Exclusions. The requirements of this rule shall not apply to the following:

(1) Development activities that are conducted pursuant to and consistent with one of the following authorizations, shall be regulated by those provisions and requirements of 15A NCAC 2H .1005 that were effective at the time of the issuance of the following authorizations:

(A) A State Stormwater Permit issued under the provisions of 15A NCAC 2H .1005.

(B) A Stormwater Certification issued pursuant to 15A NCAC 2H .1000 prior to December 1, 1995.

(C) Those authorizations contained in Section 8.1 of Session Law 2006-246, or.

(D) A 401 Certification that contains an approved Stormwater Management Plan.

(2) Redevelopment activities which have no net increase in built upon area and provide equal stormwater control than the previous development.

(3) Development activities for which a complete Stormwater Permit Application has been accepted by the Division of Water Quality prior to the effective date of this Rule, shall be regulated by the provisions and requirements of 15A NCAC 2H .1005 that were effective at the time that ~~theis~~ application was accepted as complete by the Division of Water Quality.

(4) Development activities requesting a minor modification of an existing State Stormwater Permit shall be regulated by the provisions and requirements of 15A NCAC 2H .1005 that were effective at the time of the original issuance of the State Stormwater Permit. For the purposes of this Rule, a minor modification of a State Stormwater Permit is defined as a modification that does not increase the net area of impervious surfaces within the project site or does not increase the overall size of the stormwater controls that have been previously approved for the development activity.

(e) Exemptions from vegetative buffer requirements. The following activities are exempt from the vegetative buffer requirements specified in Paragraphs (b)(2)(A)(iv), (b)(2)(B)(iv), (b)(3)(A)(iii), and (b)(3)(B)(iii) of this Rule:

(1) Urban waterfronts that meet the requirements of 15A NCAC 07H .0209(g).

(2) Those activities listed in 15A NCAC 07H .0209(d)(10)(A) through 15A NCAC .07H .0209(d)(10)(H).

(f) In addition to the requirements specified in this Rule, activities regulated under this Rule must also comply with any requirements of any other applicable rule or statute, for example, activities regulated under this rule that occur in the Neuse or Tar-Pamlico River Basins must also comply with the applicable requirements of the Neuse and Tar-Pamlico Riparian Buffer Rules, which are specified in 15A NCAC 2B .0233 and 15A NCAC 2B .0259, respectively. Notwithstanding the above, compliance with any of the high density options specified in this Rule shall be deemed to constitute compliance with the vegetated buffer requirements of the Neuse and



1 Tar-Pamlico Riparian Buffer Rules such that only the (more flexible) vegetated buffer requirements specified  
2 herein shall apply.

3 (g) Division of Water Quality implementation of the requirements specified in this Rule within a local  
4 government's jurisdiction satisfies the Post-Construction Practices mandated in Section 9 of Session Law  
5 2006-246 for any local government within the 20 Coastal Counties that is designated as a Phase 2  
6 municipality by the Environmental Management Commission under Section 5 of SL 2006-246 after August  
7 16, 2006.

8 (h) The provisions contained in the July 24, 2006 Memorandum from Alan Klimek to the Honorable Bonner  
9 Stiller~~also~~ apply to this Rule.

10 (i) The effective date of this Rule is ~~July~~January 1, 2009. The provisions of this rule automatically shall expire  
11 on December 31, 2012. It is the intent of the General Assembly that implementation of the provisions of 2007  
12 S.B. 1468 and other appropriate scientific review and study be maximized during this time period to produce  
13 more innovative, efficient and cost-effective solutions to coastal stormwater pollution. In this regard, the  
14 Secretary of DENR, Director of DWQ, Director of DCM, Director of DMF and the Innovative Stormwater  
15 Committee within the CWMTF shall cooperate and coordinate to the maximum extent practicable to achieve  
16 this goal, and shall collectively report back to the ERC no later than December 31, 2011.

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18 *History Note: Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3 (a);*  
19 *Eff. September 1, 1995;*  
20 *Amended Eff. Pending Legislative Review.*  
21