

**STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**

**REPORT OF PROCEEDINGS ON THE PROPOSED RULEMAKING
TO AMEND RULE 15A NCAC 2H. 1002, DEFINITIONS**

**PUBLIC HEARING
AUGUST 20, 2014
512 N. SALISBURY ST
RALEIGH, NC**

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Background

Purpose for Rulemaking

The purpose of this rulemaking is to amend Rule 15A NCAC 2H .1002, Definitions (part of the Stormwater Management rules) in order to 1) comply with a recent change in state law; 2) replace a temporary rule that will expire January 10, 2015; and 3) incorporate technical changes such as renumbering and alphabetizing the definitions. This rulemaking is authorized by Section 45.(b) of Session Law 2014-120.

Justification for Proposed Amendments

During the 2013-2014 Regular Session of the N.C. General Assembly, two bills were signed into law that made amendments to N.C. General Statute 143-214.7 (Stormwater runoff rules and programs). Session Law 2013-413 changed the definition of “built-upon area” such that gravel was no longer considered built-upon area. In response to Session Law 2013-413, the EMC passed a temporary amendment to Rule 15A NCAC 2H .1002, defining the term “gravel.” The temporary rule went into effect March 28, 2014 and is set to expire January 10, 2015. Additional details about the temporary rule can be found in [“Report of Proceedings on the Proposed Temporary Rulemaking to Amend Rule 15A NCAC 2H .1002, Definitions.”](#)

Session Law 2014-120 again changed the definition of “built-upon area” such that gravel was no longer excluded from being considered built-upon area. This same session law also prohibited the EMC from defining the term “gravel” in the context of its stormwater programs and removed the word “wooden” in reference to slatted decks. The timing of this latest legislation was such that it resulted in the EMC shifting the focus of the current rulemaking during the public comment period. A definition of the term “gravel” is no longer allowed by law; nor is it needed. As such, the rule going forward is revised to reflect the changes mandated by Session Law 2014-120.

Description of Proposed Amendments to Rule 15A NCAC 2H .1002

As described previously, the focus of this rulemaking has shifted due to recent legislation that was passed during the public comment period. The rule language that was brought to public hearing included a definition of “built-upon area” that reflected Session Law 2013-413 as well as a proposed definition of “gravel.” This original proposed rule language can be found in Attachment #1. The proposed rule language was subsequently changed to reflect Session Law 2014-120. The current rulemaking proposes the following amendments:

Amendment #1 Revise the definition of “built-upon area” as required by Session Law 2014-120 and codified in N.C. General Statute 143-214.7.

The definition of “built-upon area” would be changed **FROM:**

- (1) “Built-Upon Area” means that portion of a development 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.

TO:

- (1) “Built-upon Area” means impervious surface and partially impervious surface to the extent that the partially impervious surface does not allow water to infiltrate through the surface and into the subsoil. “Built upon area” does not include a slatted deck or the water area of a swimming pool.

Amendment #2 For consistency, remove the mention of gravel from the definition of “permeable pavement.”

- (15) “Permeable pavement” means paving material that absorbs water or allows water to infiltrate through the paving material. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, porous asphalt and any other material with similar characteristics. ~~Compacted gravel shall not be considered permeable pavement.~~

In addition to the above amendments, technical changes such as renumbering and alphabetizing the definitions are also proposed.

Anticipated Costs and Benefits of Proposed Rulemaking

A fiscal note (Attachment #2) was prepared in conjunction with this rulemaking per N.C. General Statute 150B-21.4 (Fiscal notes on rules). As measured from the baseline conditions as contained in Rule 15A NCAC 02H .1002, and without reference to either the temporary rule currently in effect or the recent revisions to G.S. 143-214.7, the fiscal analysis of the proposed rulemaking indicates that the estimated annual economic impacts would not meet or exceed the \$1,000,000 threshold for substantial economic impact as defined in the Administrative Procedures Act in G.S. 150B-21.4.

Permission to Proceed to Hearing

Permission to proceed to public notice and hearing with the proposed amendments to Rule 15A NCAC 2H .1002 was received from the Environmental Management Commission on July 10, 2014. The Notice of Text for the public hearing was published on the North Carolina Office of Administrative Hearings website on August 1, 2014. The Notice of Text is contained in Attachment #3.

Public Hearing

One public hearing for this permanent rulemaking action was conducted in Raleigh, NC on August 20, 2014. EMC member Mr. Tommy Craven served as the Hearing Officer for the proceedings. A copy of the Hearing Officer's remarks is contained in Attachment #5. The hearing was attended by approximately 18 people, including NC DEMLR staff. Of those who attended, two people elected to make oral comments during the hearing. A list of registered attendees and speakers is contained in Attachment #7. A digital audio recording of the public hearing was made and is available from the Division of Energy, Mineral and Land Resources.

Summary of Oral and Written Comments

The following pages will present the main issues that were raised during the public hearing and those offered in writing during the public comment period. A summary of the oral comments and a complete copy of all written comments are included in Attachments #8 and #9, respectively.

In total, two people made oral comments, and two written comments were received. The comments can be characterized as being in support of the rule changes (as originally proposed) and include two specific recommendations for changes to the proposed rule.

The following excerpts are representative of the comments received. In instances when a response is called for, a brief response is provided *in italics* that represents the Hearing Officer's position on the specific issue.

Comment: We feel that the term "wooden" should be removed from the definition of "Built-upon Area." There are many types of building materials used for slatted decks, steps, and walkways, such as composites, PVC, HDPE, aluminum. It is the slatted structure, not the material, that allows rain to drip through the spaces between the "planks" onto the ground below.

Response: *We concur. This change has been made to the proposed rule. This change also matches language that was put forth in Session Law 2014-120 and codified in N.C.*

General Statute 143-214.7.

Comment: What makes “permeable paving” permeable is material that has void spaces inside the material, and a structure to hold the material in place so that the void spaces are maintained. The existing definition of permeable pavement lists materials such as porous concrete, permeable interlocking concrete pavers, concrete grid pavers, and porous asphalt, all of which have void spaces and a structure to support the material and maintain those void spaces. However, the definition also refers to “any other material with similar characteristics.” This term ought to be clarified to avoid misinterpretation of the term “similar characteristics.” We suggest you add the following to the permeable pavement definition: “Pavement materials without proper structural support to maintain the internal void spaces under compaction shall not be considered permeable pavement.”

Response: *We agree that the definition of “permeable pavement” could be clarified in regards to aggregate materials. The EMC is in the process of a comprehensive review and readoption of existing rules, including the subject rule, pursuant to Session Law 2013-413 (NCGS 150B-21.3A). Consideration will be given as to how to best address this issue during the rule readoption process. In the interim, questions of interpretation may be resolved by referring to Chapter 18 of the NCDENR Stormwater BMP Manual which contains design and maintenance requirements that address the issue of maintaining void spaces in permeable pavement.*

Comment: We support the revision of the definition of “built-upon area” to exclude gravel from the definition, and the subsequent definition of gravel. . . . We feel that the gravel definition proposed is a rational, quantitative approach that will make it easy for regulators and developers to determine whether a material is gravel or not.

Comment: Excellent move in the right direction.

Comment: We are here today to support the interpretations that would treat compactable stone – the stone with fines that eliminate voids – as an impervious material. And keep washed or clean stone – that is much less compactable, that does allow water to penetrate – that that be considered a pervious surface. Ability to redevelop our core is most important to us, economically speaking; preserving those outlying areas and undeveloped areas, environmentally speaking. We feel that a clean definition [of built-upon area] that recognizes both impervious and pervious applications of the material [gravel] is the best all-around solution for our community.

Response: *The public comments for this rulemaking were received prior to the Sept. 18 signing of Senate Bill 734 into Session Law 2014-120 which revised the definition of “built-upon area” such that gravel is no longer excluded from being considered built-upon area. It also prohibited the EMC from defining the term “gravel” in the context of its stormwater programs. The changes mandated by Session Law 2014-120 will be incorporated into this proposed rulemaking. The EMC appreciates the feedback we’ve received on the proposed rule, and we anticipate seeking further comments on this rule as we move forward with the rule readoption process.*

Final Recommendation

After careful consideration of all comments, the Hearing Officer recommends to the Environmental Management Commission that 15A NCAC 2H .1002 be revised with changes as proposed in Attachment #10.

1 15A NCAC 2H .1002 is proposed for amendment as follows:

2

3 **15A NCAC 02H .1002 DEFINITIONS**

4 The definition of any word or phrase in this Section shall be the same as given in Article 21, Chapter 143 of the
5 General Statutes of North Carolina, as amended. Other words and phrases used in this Section are defined as
6 follows:

7 (1) "Built-upon Area" means ~~that portion of a development project that is covered by~~ impervious
8 surface or and partially impervious surface including, but not limited to, buildings; pavement to
9 the extent that the partially impervious surface does not allow water to infiltrate through the
10 surface and gravel areas such as roads, parking lots, and paths; and recreation facilities such as
11 tennis courts into the subsoil. ~~"Built upon~~ "Built-upon area" does not include a wooden slatted
12 deck, the water area of a swimming pool, or ~~pervious or partially pervious paving material to the~~
13 ~~extent that the paving material absorbs water or allows water to infiltrate through the paving~~
14 ~~material.~~ gravel.

15 (2) "CAMA Major Development Permits" mean those permits or revised permits required by the
16 Coastal Resources Commission ~~according to~~ as set forth in 15A NCAC ~~7J-07J~~ Sections .0100 and
17 .0200.

18 (3) "Certificate of Stormwater Compliance" means the approval for activities that meet the
19 requirements for coverage under a stormwater general permit for development activities that are
20 regulated by this Section.

21 (4) "Coastal Counties" ~~include~~ are Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven,
22 Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender,
23 Perquimans, Tyrrell, and Washington.

24 (5) "Curb Outlet System" means curb and gutter installed in a development which meets low density
25 criteria ~~[Rule set forth in Rule .1003(d)(1) of this Section]~~ Section with breaks in the curb or other
26 outlets used to convey stormwater runoff to grassed swales or vegetated or natural areas and
27 designed in accordance with Rule .1008(g) of this Section.

28 (6) "Development" means any land disturbing activity that increases the amount of built-upon area or
29 that otherwise decreases the infiltration of precipitation into the soil.

30 (7) "Drainage Area or Watershed" means the entire area contributing surface runoff to a single point.

31 (8) "Forebay" means a device located at the head of a wet detention pond to capture incoming
32 sediment before it reaches the main portion of the pond. The forebay is typically an excavated
33 settling basin or a section separated by a low weir.

34 (9) "General Permit" means a ~~permit~~ permit issued under G.S. 143-215.1(b)(3) and (4) authorizing a
35 category of similar activities or discharges.

36 (10) "Gravel" means a clean or washed, loose, uniformly-graded aggregate of stones from a lower limit
37 of 0.08 inches to an upper limit of 3.0 inches in size.

- 1 ~~(10)~~(11) "Infiltration Systems" mean stormwater control systems designed to allow runoff to pass or move
2 (infiltrate/exfiltrate) into the soil.
- 3 ~~(11)~~(12) "Notice of Intent" means a written notification to the Division that an activity or discharge is
4 intended to be covered by a general permit and takes the place of ~~the "application"~~ application
5 used with individual permits.
- 6 ~~(12)~~(13) "Off-site Stormwater Systems" mean stormwater management systems that are located outside the
7 boundaries of the specific project in question, but designed to control stormwater drainage from
8 that project and other potential development sites. These systems shall designate responsible
9 parties for operation and maintenance and may be owned and operated as a duly licensed utility or
10 by a local government.
- 11 ~~(24)~~(14) "One-year, 24-hour storm" means a rainfall of an intensity expected to be equaled or exceeded, on
12 average, once in 12 months and with a duration of 24 hours.
- 13 ~~(13)~~(15) "On-site Stormwater Systems" mean the systems necessary to control stormwater within an
14 individual development project and located within the project boundaries.
- 15 ~~(26)~~(16) "Permeable pavement" means paving material that absorbs water or allows water to infiltrate
16 through the paving material. Permeable pavement materials include porous concrete, permeable
17 interlocking concrete pavers, concrete grid pavers, porous asphalt, and any other material with
18 similar characteristics. ~~Compacted gravel shall not be considered permeable pavement.~~
- 19 ~~(14)~~(17) "Redevelopment" means any land disturbing activity that does not result in a net increase in built-
20 upon area and that provides greater or equal stormwater control than the previous ~~development~~
21 development. ~~(stormwater Stormwater controls shall not be allowed where otherwise prohibited).~~
22 prohibited.
- 23 ~~(27)~~(18) "Residential development activities" has the same meaning as in 15A NCAC 02B .0202(54).
- 24 ~~(15)~~(19) "Seasonal High Water Table" means the highest level that groundwater, at atmospheric pressure,
25 reaches in the soil in most years. The seasonal high water table is usually detected by the mottling
26 of the soil that results from mineral leaching.
- 27 ~~(16)~~(20) "Sedimentation/Erosion Control Plan" means any plan, amended plan or revision to an approved
28 plan submitted to the Division of Energy, Mineral, and Land Resources or delegated authority in
29 accordance with G.S. 113A-57.
- 30 ~~(17)~~(21) "Stormwater" is defined in G.S. ~~143, Article 21, 143-213(16a).~~
- 31 ~~(18)~~(22) "Stormwater Collection System" means any conduit, pipe, channel, curb or gutter for the primary
32 purpose of transporting (not treating) runoff. A stormwater collection system does not include
33 vegetated swales, swales stabilized with armoring or alternative methods where natural
34 topography or other physical constraints prevents the use of vegetated swales (subject to case-by-
35 case review), curb outlet systems, or pipes used to carry drainage underneath built-upon surfaces
36 that are associated with development controlled by the provisions of Rule .1003(d)(1) in this
37 Section.

1 ~~(19)~~(23) "10 Year Storm" means the surface runoff resulting from a rainfall of an intensity expected to be
 2 equaled or exceeded, on the average, once in 10 years, and of a duration which will produce the
 3 maximum peak rate of runoff, for the watershed of interest under average antecedent wetness
 4 conditions.

5 ~~(22)~~(24) "Vegetative Buffer" means an area of natural or established vegetation directly adjacent to surface
 6 waters through which stormwater runoff flows in a diffuse manner to protect surface waters from
 7 degradation due to development activities. The width of the buffer is measured horizontally from
 8 the normal pool elevation of impounded structures, from the bank of each side of streams or rivers,
 9 and from the mean high water line of tidal waters, perpendicular to the shoreline.

10 ~~(25)~~—"BMP" means ~~Best Management Practice.~~

11 ~~(28)~~(25) "Vegetative conveyance" means a permanent, designed waterway lined with vegetation that is
 12 used to convey stormwater runoff at a non-erosive velocity within or away from a developed area.

13 ~~(23)~~(26) "Vegetative Filter" means an area of natural or planted vegetation through which stormwater
 14 runoff flows in a diffuse manner so that runoff does not become channelized and which provides
 15 for control of stormwater runoff through infiltration of runoff and filtering of pollutants. The
 16 defined length of the filter shall be provided for in the direction of stormwater flow.

17 ~~(20)~~(27) "Water Dependent Structures" means a structure for which the use requires access or proximity to
 18 or siting within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks,
 19 and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots and
 20 boat storage areas are not water dependent uses.

21 ~~(24)~~(28) "Wet Detention Pond" means a structure that provides for the storage and control of runoff and
 22 includes a designed and maintained permanent pool volume.

23
 24 *History Note:* Authority G.S. 143-213; 143-214.1; 143-214.7; 143-215.3(a)(1);
 25 Eff. January 1, 1988;
 26 Temporary Amendment Eff. March 28, 2014; Amended Eff. August 1, 2012 (see S.L. 2012-143,
 27 s.1.(f)); July 3, 2012; December 1, 1995; September 1, 1995.
 28

Rule Topic: Definition of Gravel for Stormwater Rules

Rule Citation: 15A NCAC 02H .1002 *Definitions*

DENR Division: Division of Energy, Mineral, and Land Resources (DEMLR)

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Impact Summary: State government: No
Local government: Yes
Substantial impact: No
Federal government: No

Authority: G.S. 143-213; 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1)

Necessity: The proposed rule revisions are necessary to 1) comply with recent changes to G.S. 143-214.7; 2) provide clarity to the regulated community on the implementation of stormwater rules as required by G.S. 143-214.7; and 3) replace a temporary rule that was adopted pursuant to G.S. 150B-21.1 and published in the North Carolina Register on April 15, 2014.

I. Executive Summary

During the 2013 Regular Session of the 2013 North Carolina General Assembly, Session Law 2013-413 amended G.S. 143-214.7 to exclude “gravel” from the definition of “built-upon area.” This proposed rulemaking incorporates the amendments to G.S. 143-214.7 into Rule 15A NCAC 02H .1002. This proposed rulemaking also defines the term “gravel” and includes other changes that are technical in nature, such as renumbering and alphabetizing the definitions.

As measured from the baseline conditions as contained in Rule 15A NCAC 02H .1002, and without reference to either the temporary rule currently in effect or the recent revisions to G.S. 143-214.7, the fiscal analysis of the proposed rulemaking indicates that the estimated annual economic impacts would not meet or exceed the \$1,000,000 threshold for substantial economic impact as defined in the Administrative Procedures Act in G.S. 150B-21.4. The proposed rulemaking will have no economic impact on the State implementing agency (DEMLR) as it will neither require DEMLR to revise its existing procedures nor procure additional staff. The anticipated effective date of the proposed rulemaking is January 1, 2015 and prior to the expiration of the temporary rule on January 10, 2015.

II. Purpose of Rules and Background

The purpose of this rule change is threefold. First, some of the proposed changes to Rule 15A NCAC 02H .1002 are necessary in order to align the Rule with recent changes to G.S. 143-214.7. Section 51.(d) of North Carolina Session Law 2013-413 amended G.S. 143-214.7 such that “gravel” was excluded from the definition of “built-upon area.” The proposed rulemaking incorporates the amendments to G.S. 143-214.7 into Rule 15A NCAC 02H .1002.

Second, the amendments to G.S. 143-214.7 excluded “gravel” from the definition of “built-upon area,” but they did not provide a definition of the term “gravel.” This proposed rulemaking defines the term “gravel” and includes other changes that are technical in nature, such as renumbering and alphabetizing the definitions. All of these changes provide clarity to the regulated community on the implementation of stormwater rules that are required by G.S. 143-214.7.

Third, the proposed rulemaking will replace a temporary rule that was adopted pursuant to G.S. 150B-21.1 and published in the North Carolina Register on April 15, 2014. The temporary rule will expire January 10, 2015 unless a permanent rule is adopted to replace it. The text, purpose, and justification of the proposed permanent rule are identical to those of the temporary rule.

The North Carolina Environmental Management Commission (EMC) promulgates rules and oversees state and federal programs to control the water quality impacts of stormwater runoff from development activities. The proposed changes to Rule 15A NCAC 02H .1002 will be incorporated into all of the EMC’s stormwater programs which are designed to protect High Quality Waters, Outstanding Resource Waters, Nutrient Sensitive Waters, Coastal Waters, Water Supply Watersheds, and waters in areas adjacent to municipalities with NPDES Phase II MS4 permits. These stormwater programs are administered either on the state level by the Division of Energy, Mineral, and Land Resources (DEMLR) and the Division of Water Resources (DWR) or on the local level by municipalities and counties.

III. Costs

A. Regulated Parties

(i.) Development Community

The proposed rule will not require members of the development community to deviate from current stormwater practices; as such, there will be neither a direct cost nor opportunity cost associated with new development, existing development, or redevelopment activities as a result of the proposed rule change.

(ii.) Local governments

The proposed rule will not require local governments who administer stormwater programs to deviate from current practices; as such, there will be neither a direct cost nor opportunity cost for local governments as a result of the

proposed rule change. Local governments may, at their discretion, choose to revise their local ordinances to match the State's definitions of "built-upon area" and "gravel," but they would not be required to do so as long as their ordinances continue to be at least as stringent as the State's rules.

B. Implementing Agencies

The proposed rulemaking will have no cost to the State implementing agency (DEMLR). This rulemaking only provides clarification of existing rules that are already being fully implemented by DEMLR. These amendments will not require DEMLR to revise its existing procedures nor will they require DEMLR to procure additional staff. Therefore, this proposed rulemaking will have no economic impact to the implementing agency.

C. Environment

As measured from the baseline conditions as contained in Rule 15A NCAC 02H .1002, and without reference to either the temporary rule currently in effect or the recent revisions to G.S. 143-214.7, the proposed rulemaking will maintain existing environmental protections at a nearly equivalent level. The proposed rule does represent a slight relaxation of the current rule in that it would allow gravel that is used in place of other aggregate materials or traditional paving materials to be considered pervious for purposes of calculating "built-upon area" in development projects. "Built-upon area" is a factor in determining whether a development project is required to install stormwater control measures. It is also a factor in determining the design and size of the stormwater control measures. If a development project's stormwater control measures are designed based on the premise that gravel is not built-upon area, then there could be some instances when these measures are undersized for the volume of stormwater they will receive. Measures that are undersized may be overwhelmed or bypassed, releasing untreated stormwater runoff into waterways which could result in degraded water quality. The likelihood of such a scenario is very small given the assumption that professional engineers value their credentials and will therefore design stormwater measures that are sized in accordance with sound engineering practices.

In addition, it is expected that gravel used on its own will not be suitable for the types of applications that are most likely to result in increased stormwater runoff such as areas subject to heavy vehicular traffic. The types of gravel captured under the proposed definition are most suited to drainage or decorative landscaping applications, which are uses that are already considered pervious. Aggregate materials which are used as a top layer over a highly-compacted or impervious material or as part of a mixture to be used for roads, for example, would not meet the proposed definition of gravel and would be considered built-upon area.

For these reasons, there should be minimal cost to the environment associated with this rulemaking.

IV. Benefits

A. Regulated Community

The proposed rulemaking will provide clarity as to what constitutes “gravel” thereby making the rule easier to understand. This should translate into less time spent by applicants on the permit application process as well as less time spent by DEMLR staff providing technical assistance. The amount of time saved will be inconsequential and will not represent a significant financial benefit; however, it is noted here for completeness.

In addition, there may be a benefit to members of the development community in that if gravel, as defined in this rule, is used in place of other types of aggregate or paving materials, additional impervious surfaces could be allowed on a development site that would otherwise be limited in certain regulated areas. In some cases, this could also mean that a development would remain under a density threshold and would therefore be exempt from stormwater treatment requirements. This could lead to an average cost saving per site of about \$54,000¹ for in capital cost of installing stormwater control measures, plus savings related to annual operation and maintenance costs. While this benefit may occur, it is expected that very few developments would benefit in this way since the types of gravel captured under the proposed definition are most appropriate for drainage or decorative landscaping which are uses that are already considered pervious. Aggregate materials that are used as a top layer over a highly-compacted or impervious material or as part of a mixture to be used for roads, for example, would not meet the proposed definition of gravel and would be considered impervious.

The use of aggregate materials, including gravel, is ubiquitous across the state. It is used in all types of development including commercial, industrial, residential, and recreational, on properties of all sizes and values, and for many different purposes. We have no data to suggest that gravel is favored more or less in any particular area or areas of the state. Similarly, we have no data on the popularity of gravel versus other aggregate materials. As such, we have no data on which to base a more detailed analysis of the possible benefits of the rule to the development community. We can report that of the 54 new state stormwater permit applications received by DEMLR since the temporary rule went into effect, only three have proposed to use gravel as that term is defined in the temporary rule and in this proposed permanent rule.

B. Environment

The primary purpose of the EMC’s stormwater rules is to protect the surface waters of North Carolina from pollution caused by stormwater runoff. As measured from the baseline conditions as contained in Rule 15A NCAC 02H .1002, and without reference to either the temporary rule currently in effect or the recent revisions to G.S. 143-214.7, the proposed

¹ See more details on the costs of various stormwater control measures on page 58 of the fiscal note the DENR Division of Water Quality prepared for the Falls Lake Nutrient Management Strategy rulemaking in 2010 available at the following link. http://www.osbm.state.nc.us/files/pdf_files/DENR06082010_v2.pdf

rulemaking will maintain existing environmental protections at a nearly equivalent level with no benefit to the environment.

V. Total Costs and Benefits

The economic impacts of the proposed rulemaking, both in terms of cost and benefit, are negligible as measured from the baseline conditions. Consequently, there were no specific cost or benefit estimations to report in this fiscal note. The fiscal analysis indicates that the estimated total annual economic impacts would be significantly less than \$1,000,000 for the foreseeable future.

UPDATE:

Session Law 2014-120, which was signed into law on September 18, 2014, further amended the definition of “built-upon area” in G.S. 143-214.7 such that “gravel” is no longer excluded from being considered “built-upon area.” Session Law 2014-120 also prohibited the EMC from defining the term “gravel” in the context of its stormwater programs. The text of this proposed rulemaking has been revised to reflect these changes as directed by the session law. Specifically, the definition of “built-upon area” no longer makes reference to “gravel,” and the proposed definition of “gravel” has been stricken. As such, any references made in this fiscal note to “gravel” and the proposed rule’s associated impacts and benefits as they relate to “gravel” are no longer applicable.

Session Law 2014-120 also removed the word “wooden” from the definition of “built-upon area” in reference to “slatted decks.” This change eliminates an unnecessary and outdated reference to a type of material that was used for deck construction almost exclusively at the time the rule was first written. Since then, alternative materials, such as composite lumber, have gained in popularity. While we have no data to suggest that the use of alternative lumber materials has surpassed natural wood for deck construction, DENR stormwater programs have long recognized that it is the slatted construction -- not the type of lumber material -- that determines whether a deck is impervious or not. As such, this change will not require DEMLR to revise its existing procedures, nor will it require DEMLR to procure additional staff. As such, it will have no economic impact to the State implementing agency (DEMLR). Similarly, there will be no direct cost nor opportunity cost to the development community or local governments since they will not be required to deviate from current stormwater practices. Similarly, since slatted decks, regardless of the material used, are already permitted as pervious in practice, any benefits to members of the regulated community will be inconsequential. Finally, there will be no cost or benefits to the environment from this change since existing environmental protections will be maintained at an equivalent level.

Factoring in these changes to the proposed rule, the conclusion reached in the fiscal note is still applicable. The economic impacts of this proposed rulemaking, both in terms of cost and

benefit, are negligible as measured from the baseline conditions. The estimated total annual economic impacts would be significantly less than \$1,000,000 for the foreseeable future.

Appendix

15A NCAC 2H .1002 is proposed for amendment as follows:

[Changes made as a result of S. L. 2014-120 are highlighted in yellow.]

15A NCAC 02H .1002 DEFINITIONS

The definition of any word or phrase in this Section shall be the same as given in Article 21, Chapter 143 of the General Statutes of North Carolina, as amended. Other words and phrases used in this Section are defined as follows:

- (1) "Built-upon Area" means ~~that portion of a development project that is covered by impervious surface or and partially impervious surface including, but not limited to, buildings; pavement to the extent that the partially impervious surface does not allow water to infiltrate through the surface and gravel areas such as roads, parking lots, and paths; and recreation facilities such as tennis courts into the subsoil.~~ "Built-upon" "Built-upon area" does not include a wooden-slatted deck, deck or 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. ~~gravel-pool.~~
- (2) "CAMA Major Development Permits" mean those permits or revised permits required by the Coastal Resources Commission ~~according to~~ as set forth in 15A NCAC ~~7J-07J~~ Sections .0100 and .0200.
- (3) "Certificate of Stormwater Compliance" means the approval for activities that meet the requirements for coverage under a stormwater general permit for development activities that are regulated by this Section.
- (4) "Coastal Counties" ~~include~~ are Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrrell, and Washington.
- (5) "Curb Outlet System" means curb and gutter installed in a development which meets low density criteria ~~Rule set forth in Rule .1003(d)(1) of this Section~~ Section with breaks in the curb or other outlets used to convey stormwater runoff to grassed swales or vegetated or natural areas and designed in accordance with Rule .1008(g) of this Section.
- (6) "Development" means any land disturbing activity that increases the amount of built-upon area or that otherwise decreases the infiltration of precipitation into the soil.
- (7) "Drainage Area or Watershed" means the entire area contributing surface runoff to a single point.
- (8) "Forebay" means a device located at the head of a wet detention pond to capture incoming sediment before it reaches the main portion of the pond. The forebay is typically an excavated settling basin or a section separated by a low weir.

- (9) "General Permit" means a ~~permit~~ permit issued under G.S. 143-215.1(b)(3) and (4) authorizing a category of similar activities or discharges.
- ~~(10) "Gravel" means a clean or washed, loose, uniformly graded aggregate of stones from a lower limit of 0.08 inches to an upper limit of 3.0 inches in size.~~
- (10) "Infiltration Systems" mean stormwater control systems designed to allow runoff to pass or move (infiltrate/exfiltrate) into the soil.
- (11) "Notice of Intent" means a written notification to the Division that an activity or discharge is intended to be covered by a general permit and takes the place of ~~the "application"~~ application used with individual permits.
- (12) "Off-site Stormwater Systems" mean stormwater management systems that are located outside the boundaries of the specific project in question, but designed to control stormwater drainage from that project and other potential development sites. These systems shall designate responsible parties for operation and maintenance and may be owned and operated as a duly licensed utility or by a local government.
- ~~(24)~~(13) "One-year, 24-hour storm" means a rainfall of an intensity expected to be equaled or exceeded, on average, once in 12 months and with a duration of 24 hours.
- ~~(13)~~(14) "On-site Stormwater Systems" mean the systems necessary to control stormwater within an individual development project and located within the project boundaries.
- ~~(26)~~(15) "Permeable pavement" means paving material that absorbs water or allows water to infiltrate through the paving material. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, porous asphalt, and any other material with similar characteristics. ~~Compacted gravel shall not be considered permeable pavement.~~
- ~~(14)~~(16) "Redevelopment" means any land disturbing activity that does not result in a net increase in built-upon area and that provides greater or equal stormwater control than the previous ~~development~~ development. ~~(stormwater~~ Stormwater controls shall not be allowed where otherwise ~~prohibited~~) prohibited.
- ~~(27)~~(17) "Residential development activities" has the same meaning as in 15A NCAC 02B .0202(54).
- ~~(15)~~(18) "Seasonal High Water Table" means the highest level that groundwater, at atmospheric pressure, reaches in the soil in most years. The seasonal high water table is usually detected by the mottling of the soil that results from mineral leaching.
- ~~(16)~~(19) "Sedimentation/Erosion Control Plan" means any plan, amended plan or revision to an approved plan submitted to the Division of Energy, Mineral, and Land Resources or delegated authority in accordance with G.S. 113A-57.
- ~~(17)~~(20) "Stormwater" is defined in G.S. ~~143, Article 21,~~ 143-213(16a).
- ~~(18)~~(21) "Stormwater Collection System" 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.

~~(19)~~(22) "10 Year Storm" means the surface runoff resulting from a rainfall of an intensity expected to be equaled or exceeded, on the average, once in 10 years, and of a duration which will produce the maximum peak rate of runoff, for the watershed of interest under average antecedent wetness conditions.

~~(22)~~(23) "Vegetative Buffer" 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 the 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.

~~(25)~~ — "BMP" means ~~Best Management Practice~~.

~~(28)~~(24) "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.

~~(23)~~(25) "Vegetative Filter" means an area of natural or planted vegetation through which stormwater runoff flows in a diffuse manner so that 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.

~~(20)~~(26) "Water Dependent Structures" means a structure for which the use requires access or proximity to or siting within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks, and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots and boat storage areas are not water dependent uses.

~~(21)~~(27) "Wet Detention Pond" means a structure that provides for the storage and control of runoff and includes a designed and maintained permanent pool volume.

History Note: Authority G.S. 143-213; 143-214.1; 143-214.7; 143-215.3(a)(1);
Eff. January 1, 1988;
Temporary Amendment Eff. March 28, 2014; Amended Eff. August 1, 2012 (see S.L. 2012-143, s.1.(f)); July 3, 2012; December 1, 1995; September 1, 1995.



NOTICE OF TEXT

[Authority G.S. 150B-21.2(c)]

OAH USE ONLY

VOLUME:

ISSUE:

A-20
file
7/10/14

CHECK APPROPRIATE BOX:

- Notice with a scheduled hearing
- Notice without a scheduled hearing
- Republication of text. Complete the following cite for the volume, issue, and date of previous publication, as well as blocks 1 - 5 and 8 - 14. If a hearing is scheduled, complete block 6.
Previous publication of text was published in Volume: Issue:

1. Rule-Making Agency: Environmental Management Commission
2. Agency obtained G.S. 150B-19.1 certification: <input checked="" type="checkbox"/> OSBM certified on: July 8, 2014 <input type="checkbox"/> RRC certified on: <input type="checkbox"/> Not Required
3. Agency website postings: <ul style="list-style-type: none">• Text of proposed rule posted at: http://portal.ncdenr.org/web/guest/event-calendar• Explanation and reason for proposed rule posted at: http://portal.ncdenr.org/web/guest/event-calendar• Federal Certification posted at: n/a• Instructions for oral and written comments posted at: http://portal.ncdenr.org/web/guest/event-calendar• Fiscal Note if prepared posted at: http://portal.ncdenr.org/web/guest/event-calendar
4. Proposed Action -- Check the appropriate box(es) and list <u>rule citation(s)</u> beside proposed action: <input type="checkbox"/> ADOPTION: <input checked="" type="checkbox"/> AMENDMENT: 15A NCAC 02H .1002 <input type="checkbox"/> REPEAL:
5. Proposed effective date: January 1, 2015
6. Is a public hearing planned? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Public Hearing date: August 20, 2014 Public Hearing time: 2:00 p.m. Public Hearing Location: Ground Floor Hearing Room, Archdale Building, 512 N. Salisbury St., Raleigh, NC 27604
7. If no public hearing is scheduled, provide instructions on how to demand a public hearing:
8. Explain Reason For Proposed Rule(s): The purpose of this rule change is threefold. First, some of the proposed changes to Rule 15A NCAC 02H .1002 are necessary in order to align the Rule with recent changes to G.S. 143-214.7. Section 51.(d) of North Carolina Session Law 2013-413 amended G.S. 143-214.7 such that "gravel" was excluded from the definition of "built-upon area." The proposed rulemaking incorporates the amendments to G.S. 143-214.7 into Rule 15A NCAC 02H .1002. Second, the amendments to G.S. 143-214.7 excluded "gravel" from the definition of "built-upon area," but they did not provide a definition of the term "gravel." This proposed rulemaking defines the term "gravel" and includes other changes that are technical in nature, such as renumbering and alphabetizing the definitions. All of these changes provide clarity to the regulated community on the implementation of stormwater rules that are required by G.S. 143-214.7.

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OFFICE OF
ADMIN HEARINGS

Reason For Proposed Rule(s) cont.:

Third, the proposed rulemaking will replace a temporary rule that was adopted pursuant to G.S. 150B-21.1 and published in the North Carolina Register on April 15, 2014. The temporary rule will expire unless a permanent rule is adopted by the Environmental Management Commission and submitted to the Rules Review Commission by January 10, 2015. The text, purpose, and justification of the proposed permanent rule are identical to those of the temporary rule.

Procedure for Subjecting a Proposed Rule to Legislative Review: If an objection is not resolved prior to the adoption of the rule, a person may also submit written objections to the Rules Review Commission. If the Rules Review Commission receives written and signed objections in accordance with G.S. 150B-21.3(b2) from 10 or more persons clearly requesting review by the legislature and the Rules Review Commission approves the rule, the rule will become effective as provided in G.S. 150B-21.3(b1). The Commission will receive written objections until 5:00 p.m. on the day following the day the Commission approves the rule. The Commission will receive those objections by mail, delivery service, hand delivery, or facsimile transmission. If you have any further questions concerning the submission of objections to the Commission, please call a Commission staff attorney at 919-431-3000.

9. The person to whom written comments may be submitted on the proposed rule:

Name: Julie Ventaloro

Address: NCDENR-Land Quality Section-Stormwater Permitting Program

1612 Mail Service Center

Raleigh, NC 27699-1612

Phone (optional): 919-807-6370

Fax (optional): 919-807-6494

E-Mail (optional): julie.ventaloro@ncdenr.gov

10. Comment Period Ends: September 30, 2014**11. Fiscal impact (check all that apply).**

If this form contains rules that have different fiscal impacts, list the rule citations beside the appropriate impact.

- State funds affected
 Environmental permitting of DOT affected
 Analysis submitted to Board of Transportation
 Local funds affected
 Substantial economic impact (\geq \$1,000,000)
 No fiscal note required by G.S. 150B-21.4

12. Rule-making Coordinator: Jennifer EverettAddress: 1601 Mail Service Center
Raleigh, NC 27699-1601

Phone: 919-707-8614

E-Mail: jennifer.everett@ncdenr.gov

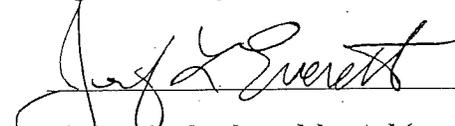
Agency contact, if any: Julie Ventaloro

Phone: 919-807-6370

E-mail: julie.ventaloro@ncdenr.gov

13. The Agency formally proposed the text of this rule(s) on

Date: July 10, 2014

14. Signature of Agency Head* or Rule-making Coordinator:


*If this function has been delegated (reassigned) pursuant to G.S. 143B-10(a), submit a copy of the delegation with this form.

Typed Name: Jennifer Everett

Title: Rulemaking Coordinator

1 15A NCAC 2H .1002 is proposed for amendment as follows:

2
3 **15A NCAC 02H .1002 DEFINITIONS**

4 The definition of any word or phrase in this Section shall be the same as given in Article 21, Chapter 143 of the
5 General Statutes of North Carolina, as amended. Other words and phrases used in this Section are defined as
6 follows:

- 7 (1) "Built-upon Area" means ~~that portion of a development project that is covered by impervious~~
8 ~~surface or and partially impervious surface including, but not limited to, buildings; pavement to~~
9 ~~the extent that the partially impervious surface does not allow water to infiltrate through the~~
10 ~~surface and gravel areas such as roads, parking lots, and paths; and recreation facilities such as~~
11 ~~tennis courts into the subsoil. "Built-upon "Built-upon area" does not include a wooden slatted~~
12 ~~deck, the water area of a swimming pool, or pervious or partially pervious paving material to the~~
13 ~~extent that the paving material absorbs water or allows water to infiltrate through the paving~~
14 ~~material: gravel.~~
- 15 (2) "CAMA Major Development Permits" mean those permits or revised permits required by the
16 Coastal Resources Commission ~~according to as set forth in~~ 15A NCAC ~~7J-07J~~ Sections .0100 and
17 .0200.
- 18 (3) "Certificate of Stormwater Compliance" means the approval for activities that meet the
19 requirements for coverage under a stormwater general permit for development activities that are
20 regulated by this Section.
- 21 (4) "Coastal Counties" ~~include~~ are Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven,
22 Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender,
23 Perquimans, Tyrrell, and Washington.
- 24 (5) "Curb Outlet System" means curb and gutter installed in a development which meets low density
25 criteria [~~Rule set forth in Rule .1003(d)(1) of this Section~~] Section with breaks in the curb or other
26 outlets used to convey stormwater runoff to grassed swales or vegetated or natural areas and
27 designed in accordance with Rule .1008(g) of this Section.
- 28 (6) "Development" means any land disturbing activity that increases the amount of built-upon area or
29 that otherwise decreases the infiltration of precipitation into the soil.
- 30 (7) "Drainage Area or Watershed" means the entire area contributing surface runoff to a single point.
- 31 (8) "Forebay" means a device located at the head of a wet detention pond to capture incoming
32 sediment before it reaches the main portion of the pond. The forebay is typically an excavated
33 settling basin or a section separated by a low weir.
- 34 (9) "General Permit" means a ~~"permit"~~ permit issued under G.S. 143-215.1(b)(3) and (4) authorizing a
35 category of similar activities or discharges.
- 36 (10) "Gravel" means a clean or washed, loose, uniformly-graded aggregate of stones from a lower limit
37 of 0.08 inches to an upper limit of 3.0 inches in size.

- 1 ~~(10)~~(11) "Infiltration Systems" mean stormwater control systems designed to allow runoff to pass or move
2 (infiltrate/exfiltrate) into the soil.
- 3 ~~(11)~~(12) "Notice of Intent" means a written notification to the Division that an activity or discharge is
4 intended to be covered by a general permit and takes the place of ~~the "application"~~ application
5 used with individual permits.
- 6 ~~(12)~~(13) "Off-site Stormwater Systems" mean stormwater management systems that are located outside the
7 boundaries of the specific project in question, but designed to control stormwater drainage from
8 that project and other potential development sites. These systems shall designate responsible
9 parties for operation and maintenance and may be owned and operated as a duly licensed utility or
10 by a local government.
- 11 ~~(24)~~(14) "One-year, 24-hour storm" means a rainfall of an intensity expected to be equaled or exceeded, on
12 average, once in 12 months and with a duration of 24 hours.
- 13 ~~(13)~~(15) "On-site Stormwater Systems" mean the systems necessary to control stormwater within an
14 individual development project and located within the project boundaries.
- 15 ~~(26)~~(16) "Permeable pavement" means paving material that absorbs water or allows water to infiltrate
16 through the paving material. Permeable pavement materials include porous concrete, permeable
17 interlocking concrete pavers, concrete grid pavers, porous asphalt, and any other material with
18 similar characteristics. ~~Compacted gravel shall not be considered permeable pavement.~~
- 19 ~~(14)~~(17) "Redevelopment" means any land disturbing activity that does not result in a net increase in built-
20 upon area and that provides greater or equal stormwater control than the previous ~~development~~
21 development. ~~(stormwater Stormwater controls shall not be allowed where otherwise prohibited).~~
22 prohibited.
- 23 ~~(27)~~(18) "Residential development activities" has the same meaning as in 15A NCAC 02B .0202(54).
- 24 ~~(15)~~(19) "Seasonal High Water Table" means the highest level that groundwater, at atmospheric pressure,
25 reaches in the soil in most years. The seasonal high water table is usually detected by the mottling
26 of the soil that results from mineral leaching.
- 27 ~~(16)~~(20) "Sedimentation/Erosion Control Plan" means any plan, amended plan or revision to an approved
28 plan submitted to the Division of Energy, Mineral, and Land Resources or delegated authority in
29 accordance with G.S. 113A-57.
- 30 ~~(17)~~(21) "Stormwater" is defined in G.S. ~~143, Article 21, 143-213(16a).~~
- 31 ~~(18)~~(22) "Stormwater Collection System" means any conduit, pipe, channel, curb or gutter for the primary
32 purpose of transporting (not treating) runoff. A stormwater collection system does not include
33 vegetated swales, swales stabilized with armoring or alternative methods where natural
34 topography or other physical constraints prevents the use of vegetated swales (subject to case-by-
35 case review), curb outlet systems, or pipes used to carry drainage underneath built-upon surfaces
36 that are associated with development controlled by the provisions of Rule .1003(d)(1) in this
37 Section.

Proposed Stormwater Rule (Gravel)

Public Hearing: August 20, 2014 at 2:00 pm

512 N. Salisbury St, Raleigh, Archdale Building, Ground Floor Hearing Room

What does the proposed rule say?

The new rule proposes three main changes to Rule 15A NCAC 2H .1002, which contains the definitions pertaining to the state stormwater programs. The three main changes are as follows:

Change #1:

The definition of "built-upon area" would be changed **FROM:**

- (1) "Built-Upon Area" means that portion of a development 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.

TO:

- (1) "Built-upon Area" means impervious surface and partially impervious surface to the extent that the partially impervious surface does not allow water to infiltrate through the surface and into the subsoil. "Built upon area" does not include a wooden slatted deck, the water area of a swimming pool, or gravel.

Change #2:

The following definition of "gravel" would be added:

- (10) "Gravel" means a clean or washed, loose uniformly-graded aggregate of stones from a lower limit of 0.08 inches to an upper limit of 3.0 inches in size.

Change #3:

The last statement in the definition of "permeable pavement" would be removed:

- ~~(26)~~ (16) "Permeable pavement" means paving material that absorbs water or allows water to infiltrate through the paving material. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, porous asphalt, and any other material with similar characteristics. ~~Compacted gravel shall not be considered permeable pavement.~~

Why is this rule being proposed?

During the 2013-2014 legislative session, N.C. General Statute 143-214.7 was amended to exclude “gravel” from the definition of “built-upon area.” Since August 2013, when the amendment of N.C. General Statute 143-214.7 became effective, the regulated community questioned how to interpret the use of the term “gravel” in the amended statute. For this reason, the Environmental Management Commission (EMC) adopted a temporary rule to define the term “gravel” used in the amended statute. The temporary rule directs the regulated community in its interactions with the Division of Energy, Mineral, and Land Resources (DEMLR) and also prevent adverse environmental impacts. The temporary rule will expire January 10, 2015 unless it is replaced by a permanent rule.

Laypersons often indiscriminately use the term “gravel” to refer to any aggregate material, such as the crushed stone material that is typically used in constructing roads or parking lots or the river rock that is used for decoration in landscaping. The term “gravel” is described differently within the stone, sand and gravel industry. In the industry, gravel is a specific term that is defined by the size and distribution of the particles in the aggregate. The size limits of 0.08 inches to 3.0 inches proposed in the rule are consistent with the USDA-Natural Resources Conservation Service (NRCS) “Field Book for Describing and Sampling Soils” and the American Association of State Highway and Transportation Officials (AASHTO) soil classification system. The upper size limit of 3.0 inches is also consistent with the Unified Soil Classification System (USCS), as standardized in ASTM D2487. USCS also specifies that gravel should have less than 5 percent fines. The restriction on fines is the reason the rule states that gravel shall be “clean or washed.”

The term “uniformly-graded” is also included in the proposed definition of gravel. In a uniformly-graded aggregate, most of the aggregate particles are of approximately the same size. Uniformly-graded aggregates have a high percentage of void space as compared to well-graded aggregate, and they don’t compact as easily; therefore, uniformly-graded aggregate will have greater permeability. Aggregate that is used for roadways and parking is typically well-graded and will not be captured by this definition. The term “uniformly-graded” is unambiguous and is recognized by industry. As such, it will allow for consistent application of the regulation.

Some development sites that use crushed stone materials have greatly reduced stormwater infiltration rates due to either clogging of the material at the surface or compaction of the underlying soil (at the time of installation or as a result of ongoing vehicular or foot traffic). Stormwater runoff from such aggregate crushed stone surfaces typically has higher velocities, volumes and pollutant loadings than stormwater runoff from typical pervious surfaces. If a development site’s stormwater control measures are designed based on the assumption that crushed stone surfaces are pervious, then these measures may be overwhelmed or bypassed, possibly causing gradual or catastrophic release of stormwater runoff and associated pollutants into the environment.

Other North Carolina statutes that use the term “gravel” also use the terms “rock” and “stone.” These statutes include the definition of minerals in the Mining Act and the requirements for haulers under the Motor Vehicle Act. By using the terms “gravel,” “stone,” and “rock” together, the General Assembly has recognized that these materials are different from each other but up until now has not needed to distinguish between them. However, in this instance, the General Assembly provided an exception only for “gravel” that does not apply to “stone” or “rock.” The definition of “gravel” proposed in this rule applies only to the state stormwater program and not to any other type of state program.

How does the proposed rule affect development projects?

DEMLR anticipates that there are three types of projects affected by the proposed rule:

#1 New Development Projects (Reviewed by DEMLR)

DEMLR will not consider gravel areas within new development projects to be built-upon area if they 1) meet the definition of gravel (as defined in the proposed rule), and 2) allow water to infiltrate into the subsoil. For new development projects, this could reduce the overall percentage of built-upon area for the purposes of determining the overall site density and as well as for sizing of stormwater control measures. Areas within new development projects that are covered by aggregate materials that do not meet the definition of gravel will typically be considered as built-upon areas. All applicants, however, have the opportunity to design an aggregate surface that allows a portion of the stormwater to infiltrate through the surface and into the subsoil and present this design to DEMLR staff for consideration and review. The permeable pavement chapter of the N.C. Stormwater BMP Manual can be used as guidance when proposing a partially impervious surface to DEMLR.

#2 Existing Development Projects Seeking to Expand (Reviewed by DEMLR)

Permittees with existing development projects that they are seeking to expand may be interested in “discounting” gravel surfaces that have already been considered as built-upon areas from the overall built-upon percentage of the site. This could allow the permittee to either maintain a low-density status or expand without increasing the size of the stormwater practices. Existing areas of the site that meet the definition of gravel can be moved from the built-upon area side to the pervious side of the equation when the site expansion is submitted to DEMLR for review and approval. However, any areas covered by aggregate materials that do not meet the definition of gravel will continue to be considered as built-upon area.

#3 Redevelopment Projects (Reviewed by DEMLR)

When an existing development that is not equipped with stormwater practices is redeveloped, the permittee is not required to provide stormwater treatment as long as the new built-upon area does not exceed the existing built-upon area. If the new built-upon area does exceed the existing built-upon area, then the permittee has to treat only the difference in built-upon areas. Please note that the stormwater rule requires redevelopment to provide equal or better stormwater control than the existing development. For example, if an existing development’s stormwater flowed through grassed areas, then the redeveloped site could not pipe the stormwater and send it directly to surface waters.

Any existing gravel areas as defined per the proposed rule would not be considered part of the existing built-upon area. Any aggregate materials other than gravel would be considered part of the existing built-upon area that would be excused from providing stormwater practices as a redeveloped project. In this way, the definition of gravel in the proposed rule may benefit owners of redevelopment projects by reducing or eliminating the requirement for stormwater treatment.

How does this affect local governments?

Over 300 local governments in North Carolina are responsible for implementing stormwater protection under the Phase II, Nutrient Sensitive Waters and Water Supply Watershed Programs. Each of these local governments has ordinances that codify its stormwater requirements. The EMC believes that each local government may make its own determination about whether or not to include these new definitions in its local ordinance. However, a local government's ordinance cannot be less stringent than state rules. As such, local governments may not have a more inclusive definition of gravel than the rule's definition.

The EMC suggests that each local government consult its own legal counsel for advice on this matter.

How may I comment on the proposed rule and associated fiscal note?

Comments from the public shall be directed to:

Julie Ventaloro
DEMLR Land Quality Section/Stormwater Program
1612 Mail Service Center
Raleigh, NC 27699-1612
Phone: (919) 807-6370

Email: julie.ventaloro@ncdenr.gov – please note "Stormwater Rule" in the subject line.

The comment period began August 1, 2014 and ends **September 30, 2014**.

PUBLIC HEARING

Proposed Rulemaking to Revise Definition of “Built-Upon Area” and to Define “Gravel” in Stormwater Rule 15A NCAC 2H .1002

Archdale Bldg, Ground Floor Hearing Room, 512 N. Salisbury St, Raleigh, NC
August 20, 2014, 2:00 p.m.

Hearing Officer: Tommy Craven

Good Afternoon. **I am calling this public hearing to order.** My name is Tommy Craven, I have been appointed by the Chair of the Environmental Management Commission as the presiding officer for today’s hearing.

This public hearing is being held under the authority of North Carolina General Statute 143-215.3 and General Statute 150B. In accordance with General Statute 150B, a public notice containing the proposed changes to the rule was published in the August 1, 2014 edition of the North Carolina *Register*.

Notice to the public was provided through the Department’s and Division’s websites, the UNC School of Government Stormwater listserv, the DENR Stormwater Outreach and Education listserv, the NC DEMLR Stormwater BMP Manual listserv, and a press release issued by the Department. Notice was also sent by email to other individuals who have expressed interest in the proposed rulemaking.

The purpose of today's hearing is to receive public comments on the amendments to stormwater Rule 15A NCAC 2H .1002 and the associated fiscal note. The EMC is interested in relevant scientific, technical, economic, and social information that may assist the EMC in its consideration of this rule.

A written record of this hearing will be prepared for the Commission. For this reason, the audio of this hearing is being recorded. Written comments received by September 30, 2014 will also be included as part of the record. Written comments may be submitted in writing to the address found on the handout available tonight. Equal weight is given to both written and oral comments.

In making any final decision, the EMC considers the public comments record, input of DENR staff, the suggestions of the hearing officer and any concerns of the Commission members. Based upon careful consideration by myself and the DENR staff, I will make a recommendation to the EMC. The recommendation may be to adopt the proposed rule, to adopt a modified version of the rule that may be more or less stringent than the current proposal, or to take no action and retain the existing rule as it stands today.

The Commission may adopt the recommendation, modify it, or reject it. If the Commission wishes to adopt a rule that differs substantially from what has been published on the Office of Administrative Hearings website and presented this afternoon, it may be necessary to first publish the text of the proposed modified rule and accept comments on the new text.

.....
OPTIONAL: Before we proceed further, I would like to recognize [*introduce any elected officials or other EMC members that wish to be recognized*] that are here:

(read names from sign in forms)

- _____
- _____

I would also like to recognize members of the Division of Energy, Mineral and Land Resources Stormwater staff that are here:

- Bradley Bennett
- Julie Ventaloro
- _____
- _____

Other Department of Environment and Natural Resources staff here today include:

- _____
- _____
- _____
- _____

.....
I will now ask **Julie Ventaloro** from the Division of Energy, Mineral and Land Resources to give an overview of the proposed rulemaking for you. There are handouts available at the registration table that provide this information as well. Following the staff presentation, we will receive oral comments.

.....
(Julie's presentation)
.....

Thank you, Julie.

We will now move forward with receiving public comments. The Environmental Management Commission is very interested in all comments pertaining to the proposed rule, whether they are in favor of or opposed to any provisions of the proposed rule. All interested and potentially affected persons or parties are encouraged to make comments on the proposed rule. Please know that your comments enable the Commission to act in the best interest of the public.

It is important that you keep your comments concise and relevant to the proposed rulemaking. Later, if you have other comments that you believe should be voiced to staff or to me as the Hearing Officer, we will try to give additional time at the end of the hearing to hear those comments.

Comments will now be accepted. I will call on speakers in the order that you registered for this hearing. When your name is called, please come up to the microphone, and clearly and slowly state your name and any affiliation with an organization you may be representing. If you have written copies of your comments, we would appreciate receiving a copy of them.

We may question speakers, if necessary, to clarify or learn more about matters as they arise. After all the registered speakers have had an opportunity to comment, anyone who did not register to speak or desires additional time to speak will have the opportunity to do so. Staff will be available after the hearing to address any additional questions or comments that you may have.

.....

If a large number of people have requested to speak, insert the following:

<i># People who wish to speak</i>	<i>**Time limit per speaker</i>
<i>1-20</i>	<i>No limit</i>
<i>21-30</i>	<i>4 minutes</i>
<i>31+</i>	<i>3 minutes</i>

Because a large number of people have requested to speak, it will be necessary to impose a time limit of _____ (*** see above choice of 3 or 4*) minutes. A member of the Division of Energy, Mineral and Land Resources staff, _____ (*person's name*), located here next to me will be timing the comments and will hold up a sign indicating when you have one minute remaining to speak. We appreciate your cooperation with this time limit so that everyone who wishes to speak is able to do so.

.....

I will now call on the first speaker.

(call speakers in the order that they registered)

Are there any additional comments?

If there are no more comments, then this hearing is closed. The public comment period will remain open until September 30, 2014. This means that any time between today and September 30, 2014, you may submit written comments to Ms. Ventaloro, and those written comments will be made part of the public record.

Thank you for coming to the hearing.

THIS MEETING IS NOW CLOSED.

The following is a summary of remarks made by NC DEMLR staff during the August 20, 2014 public hearing. The full text is available as an audio recording.

**Rule 15A NCAC 2H .1002
DEMLR Staff Remarks**

Thank you, Commissioner Craven. My name is Julie Ventaloro. I work in the Division of Energy, Mineral, and Land Resources. I'm going to give you a brief overview of the proposed rulemaking before we begin calling on speakers.

>>>Before I get into the details of this rulemaking, I need to mention some legislative activity that took place regarding this issue just last week. On Friday, August 15, the Legislature passed Senate Bill 734, known as the Regulatory Reform bill. The bill includes a section on the issue of stormwater and gravel. Specifically, it amends the definition of "built-upon area" such that "gravel" is no longer excluded from being considered "built-upon area." The bill also prohibits the EMC from defining the term "gravel" in the context of its stormwater programs. Senate Bill 734 has not yet been signed by the Governor, but if it is signed, then the temporary rule that's currently in effect will immediately become ineffective. EMC and staff are tracking the bill, and we'll keep you all informed if or when it gets signed into law. In either case, we intend to move ahead with a permanent rulemaking either as it is proposed today, or more likely, with revisions as presented in Senate Bill 734. <<<

The rulemaking we're talking about today is proposing amendments to Rule 15A NCAC 2H .1002, which is the "Definitions" section of the stormwater rule, along with the associated fiscal note. This rule applies to state rules which regulate post-construction stormwater and which rely on the EMC's definition of "built-upon area." This includes NPDES Phase 2, Water Supply Watershed Protection, High Quality Water, Outstanding Resource Water, Goose Creek Water Quality Management Plan, as well as the nutrient management strategies. This rule does not apply to forestry or agriculture operations, nor does it apply to sediment and erosion control practices.

Temporary amendments to this same rule went into effect on March 28, 2014 and are set to expire January 10, 2015. Today's proposed permanent rule will replace the temporary rule and, if adopted, could go into effect as early as January 1, 2015. The proposed permanent rule amendments are identical to the temporary rule.

In addition to the text of the rule, you are also being invited to comment on the fiscal note. Both the rule changes and the fiscal note are based on the baseline conditions as contained in Rule 15A NCAC 2H .1002 and without reference to either the temporary rule currently in effect or to recent changes to Session Law.

.....

This permanent rulemaking is being proposed for three reasons:

First, some of the changes to the rule are necessary in order to align the rule with recent changes to General Statute 143-214.7. Section 51.(d) of North Carolina Session Law 2013-413 amended General Statute 143-214.7 such that “gravel” was excluded from the definition of “built-upon area.” Built-upon area is a term used in a number of our laws and rules to define the portion of a project area that covers the land surface with impervious surfaces which prevent rainwater from infiltrating into the soil. Accurately determining the amount of built-upon area on a site is a major issue in stormwater management. It is critical to estimating pollutant loading, runoff velocities, and runoff volumes which can pose a threat to surface waters.

Second, the Session Law excluded “gravel” from the definition of “built-upon area,” but it did not provide a definition of the term “gravel.” This resulted in questions among the regulated community as to how to interpret the term “gravel” and how to apply the new definition of “built-upon area” to new development and redevelopment projects.

Laypersons often indiscriminately use the term “gravel” to refer to any aggregate material, from crushed stone that is typically used in constructing roads or parking lots to river rock that is used for decoration in landscaping. The term “gravel” is described differently by the stone, sand and gravel industry. In the industry, gravel is a more specific term that is generally defined by the size and distribution of the particles in the aggregate. The industry definition of gravel is what we based our definition on.

Besides the characteristics of the gravel material itself, it is also important to keep in mind that the perviousness of gravel is also dependent on the soil conditions under the gravel. The proposed definition of built-upon area includes the provision that built-upon area “does not allow water to infiltrate through the surface and into the subsoil.” This language allows the EMC and the Division to continue to consider the underlying soil in evaluating built-upon area. The EMC has not proposed any additional changes to the rule related to this issue, but it may be an area for clarification. We welcome your comments on this area as well.

In addition to defining the term “gravel,” this proposed rule contains other changes that are technical in nature, such as renumbering and alphabetizing the definitions.

Third, as I mentioned before, the proposed rule will replace the temporary rule. The temporary rule will expire January 10, 2015 unless a permanent rule has been adopted to replace it.

.....

Besides the technical changes such as renumbering and alphabetizing the definitions, there are three main substantive changes being proposed to Rule 15A NCAC 2H .1002:

First, the definition of “built-upon area” is being changed to match the definition adopted in Session Law 2013-413. It specifically excludes gravel from being considered built-upon area.

Second, a definition of “gravel” is being added. It is proposed that gravel be defined as: “. . . a clean or washed, loose, uniformly-graded aggregate of stones from a lower limit of 0.08 inches to an upper limit of 3.0 inches in size.”

Third, in the existing definition of “permeable pavement,” the sentence “Compacted gravel shall not be considered permeable pavement” will be removed. This change was necessary to remove conflicts with the proposed definition of gravel.

FISCAL NOTE

There is also a fiscal note with this rulemaking, and it is also available in the handouts at the sign-in desk. The fiscal note was approved by the Office of State Budget Management on July 8th, 2014. Based on the analysis, it was concluded that the economic impacts of the rulemaking, both in terms of cost and benefit, are negligible. Consequently, there were no specific cost or benefit estimations to report. The fiscal analysis indicates that the estimated total annual economic impacts would be significantly less than \$1,000,000 for the foreseeable future.

We encourage you to provide your feedback on the proposed changes and the fiscal note. It is helpful for the Commission and the Division to hear from you on parts of the rule you like as well as parts you’d like to see changes to. It is especially helpful to have suggested language for the Commission and Division to consider.

List of Attendees

Public Hearing on Proposed Rule to Amend 15A NCAC 2H .1002

August 20, 2014

Ground Floor Hearing Room, Archdale Building, Raleigh, NC

<u>Name</u>	<u>Representing</u>
Jennifer Buzun	City of Durham, Public Works
Rick Flowe	City of Creedmoor
Randall Cahoon	City of Creedmoor
Glenn Sappie	NC DENR, Division of Air Quality
Gail Bledsoe	NC Forest Service
Kevin Kidd	City of Raleigh
Fred Adams Jr	Self
Donald M. Perry	City of Rocky Mount
Blair Hinkle	City of Rocky Mount
Sarah Collins	NC League Municipalities
Kelly Boone	CDM Smith
Jay Stem	NC Aggregates Association
Julie Ventaloro	NCDEMLR
Bradley Bennett	NCDEMLR
Shelton Sullivan	NCDWR
Bethany Georgoulas	NCDEMLR
Karen Higgins	NCDWR
Laura Alexander	NCDEMLR

Summary of Oral Comments
Public Hearing on Proposed Temporary Rule to Amend 15A NCAC 2H .1002
Aug. 20, 2014
Ground Floor Hearing Room, Archdale Bldg, Raleigh, NC

Two people chose to speak during the public hearing. Their comments are summarized below.

- Jennifer Buzun, PE, Public Works Dept, City of Durham. In general, we like the rule. Support the revised definition of built-upon area and the definition of gravel as proposed. However, this is a good opportunity to remove the word “wooden” before “slatted deck.” Today, people use PVC, aluminum, HDPE for decks. It’s the slatted structure that makes them not built-upon; rain can fall between slats onto ground below. Nothing to do with the material. On the definition of permeable pavement, it needs further clarification. Agree to remove statement “Compacted gravel is not permeable pavement.” But because of how people have always thought of these things, and now that we’re defining gravel in a precise way, it’s possible people could interpret compacted aggregate as being permeable paving. What makes permeable pavement permeable is that material has void spaces and a hard structure that supports and maintains those void spaces. Existing definition of permeable pavement lists porous concrete, permeable interlocking concrete pavers, concrete grid pavers, porous asphalt, all of which have void spaces and hard structure to maintain void spaces. But it also says “any other material with similar characteristics.” That’s where we believe an ounce of prevention is worth a pound of cure. I’d rather not be arguing with people trying to convince them that crushed stone that could easily be compacted, has no structure, with cars running over it in a parking lot, that that’s not permeable pavement. I know they’ll try it. We suggest you add to permeable pavement definition: “Pavement materials without proper structural support to maintain the internal void spaces under compaction shall not be considered permeable pavement.” We’ll be submitting written comments as well.
- Rick Flow, Planning Dept, City of Creedmoor. Creedmoor lies within Falls Rules jurisdiction. We support those rules. We are active participants in a number of initiatives to be pro-environment. At same time, we are also pro-economic development, jobs for our community. Our development strategy is driven around concentrating around the core, to redevelop existing impervious areas. We are here today to support the interpretations that would treat compactable stone, the stone with fines that eliminate voids, as an impervious material, and to keep washed or clean stone, that is much less compactable, that does allow water to penetrate, that that be considered a pervious surface. We see a separation in construction terms into two categories: one more for light-duty, decorative applications like landscaping stone, maybe some limited amounts of driveway, loose, difficult to compact. However, stone materials put down years ago -- those were low-cost substitutes for paving. Those were laid down before the rules and zoning laws. Ability to redevelop our core is most important to us economically speaking. Preserving those outlying areas and undeveloped areas environmentally speaking. We feel that a clean definition that recognizes both impervious and pervious applications of the material is the best all-around solution for our community.

Ventaloro, Julie

From: Bob Mitchell [bobmitch58@gmail.com]
Sent: Monday, August 04, 2014 8:21 AM
To: Ventaloro, Julie
Subject: Amendment to Section .1000 - Stormwater Management (Gravel)

Julie,

Excellent move in the right direction.

Bob Mitchell

bobmitch58@gmail.com

The **ADAMS COMPANY**, Inc.

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CITY OF DURHAM

Department of Public Works
 Stormwater Services
 101 City Hall Plaza | Durham, NC 27701
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www.durhamnc.gov

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 STORMWATER PERMITTING

August 20, 2014

Via e-mail

Ms. Julie Ventaloro
 Division of Energy, Mineral and Land Resources,
 1612 Mail Service Center
 Raleigh, NC 27699-1612
julie.ventaloro@ncdenr.gov

**RE: Comments on Proposed Changes to Stormwater Management Rule
 15A NCAC 02H .1002**

Dear Ms. Ventaloro:

The City of Durham Department of Public Works ("the Department") reviews residential, commercial, industrial, and institutional development plans for compliance with stormwater requirements. As such, the Department has a strong interest in the regulatory review of State stormwater programs pursuant to Title 15A of the North Carolina Administrative Code (NCAC) Section 02H .1002.

City representatives attended the December 11, 2013 Stormwater Study Working Group Meeting held by Senator Jackson and Representative Samuelson on how partially impervious surfaces are treated in the calculation of built-upon area under stormwater programs. We submitted oral and written comments at that meeting.

The Department wishes to offer the following comments on several of the proposed changes to 15A NCAC 02H .1002:

DEFINITION OF BUILT-UPON AREA and DEFINITION OF GRAVEL

1. We support the revision of the definition of "built-upon area" to exclude gravel from the definition, and the subsequent definition of gravel.
 - (1) *"Built-upon Area" means impervious surface and partially impervious surface to the extent that the partially impervious surface does not allow water to infiltrate through the surface and into the subsoil. "Built-upon area" does not include a ~~wooden~~ slatted deck, the water area of a swimming pool, or gravel.*
 - (10) *"Gravel" means a clean or washed, loose, uniformly-graded aggregate of stones from a lower limit of 0.08 inches to an upper limit of 3.0 inches in size.*

We feel that the gravel definition proposed is a rational, quantitative approach that will make it easy for regulators and developers to determine whether a material is gravel or

Ms. Julie Ventaloro
 August 20, 2014
 Comments on Proposed Changes to 15A NCAC 02H .1002
 Stormwater Management Rule
 Page 2 of 3

not. The proposed definition also adequately differentiates gravel from aggregate material.

2. We feel that the term “wooden” should be removed from the definition of “Built-upon Area”. There are many types of building materials used for slatted decks, steps, and walkways, such as composites, PVC, HDPE, aluminum. It is the slatted structure, not the material, that allows rain to drip through the spaces between the “planks” onto the ground below.

DEFINITION OF PERMEABLE PAVEMENT

3. We feel that the proposed revision to the definition of permeable pavement needs further clarification.

(16)“Permeable pavement” means paving material that absorbs water or allows water to infiltrate through the paving material. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, porous asphalt, and any other material with similar characteristics. Compacted gravel shall not be considered permeable pavement.

The Department agrees that the statement “Compacted gravel shall not be considered permeable pavement” needs to be removed. However, the possibility that compacted aggregate could be interpreted as being permeable paving is not specifically addressed by this revised definition and it should be.

4. What makes “permeable paving” permeable is material that has void spaces inside the material, and a structure to hold the material in place so that the void spaces are maintained.
 - a. The existing definition of permeable pavement lists materials such as porous concrete, permeable interlocking concrete pavers, concrete grid pavers, and porous asphalt, all of which have void spaces and a structure to support the material and maintain those void spaces.
 - b. However, the definition also refers to “any other material with similar characteristics”. This term ought to be clarified to avoid misinterpretations of the term “similar characteristics”.
5. Thus, we would propose the following change to the definition of permeable pavement:

(16)“Permeable pavement” means paving material that absorbs water or allows water to infiltrate through the paving material. Permeable pavement materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, porous asphalt, and any other material with similar characteristics. Pavement materials without proper structural support to maintain the internal void spaces under compaction shall not be considered permeable pavement.

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Comments on Proposed Changes to 15A NCAC 02H .1002
Stormwater Management Rule
Page 3 of 3

In summary, the Department supports the proposed changes concerning the term "gravel", and favors clarification of the definition of permeable pavement by stating that pavement materials without proper structural support to maintain the internal void spaces under compaction shall not be considered permeable pavement.

Thank you for the opportunity to comment on these proposed changes. If you have any questions, please contact John Cox at (919) 560-4326 x 30212, john.cox@durhamnc.gov, or Jennifer Buzun at (919) 560-4526 x 30292, jennifer.buzun@durhamnc.gov.

3

Respectfully,



Marvin G. Williams
Director of Public Works

1 15A NCAC 2H .1002 is proposed for amendment with changes as follows:

2
3 **15A NCAC 02H .1002 DEFINITIONS**

4 The definition of any word or phrase in this Section shall be the same as given in Article 21, Chapter 143 of the
5 General Statutes of North Carolina, as amended. Other words and phrases used in this Section are defined as
6 follows:

- 7 (1) "Built-upon Area" means ~~that portion of a development project that is covered by~~ impervious
8 surface or and partially impervious surface including, but not limited to, buildings; pavement to
9 the extent that the partially impervious surface does not allow water to infiltrate through the
10 surface and gravel areas such as roads, parking lots, and paths; and recreation facilities such as
11 tennis courts into the subsoil. ~~"Built upon~~ "Built-upon area" does not include a wooden-slatted
12 deck, deck or the water area of a swimming pool, ~~or pervious or partially pervious paving material~~
13 ~~to the extent that the paving material absorbs water or allows water to infiltrate through the paving~~
14 ~~material.~~ pool.
- 15 (2) "CAMA Major Development Permits" mean those permits or revised permits required by the
16 Coastal Resources Commission ~~according to~~ as set forth in 15A NCAC ~~7J-07J~~ Sections .0100 and
17 .0200.
- 18 (3) "Certificate of Stormwater Compliance" means the approval for activities that meet the
19 requirements for coverage under a stormwater general permit for development activities that are
20 regulated by this Section.
- 21 (4) "Coastal Counties" ~~include~~ are Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven,
22 Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender,
23 Perquimans, Tyrrell, and Washington.
- 24 (5) "Curb Outlet System" means curb and gutter installed in a development which meets low density
25 criteria ~~[Rule set forth in Rule .1003(d)(1) of this Section]~~ Section with breaks in the curb or other
26 outlets used to convey stormwater runoff to grassed swales or vegetated or natural areas and
27 designed in accordance with Rule .1008(g) of this Section.
- 28 (6) "Development" means any land disturbing activity that increases the amount of built-upon area or
29 that otherwise decreases the infiltration of precipitation into the soil.
- 30 (7) "Drainage Area or Watershed" means the entire area contributing surface runoff to a single point.
- 31 (8) "Forebay" means a device located at the head of a wet detention pond to capture incoming
32 sediment before it reaches the main portion of the pond. The forebay is typically an excavated
33 settling basin or a section separated by a low weir.
- 34 (9) "General Permit" means a ~~permit~~ permit issued under G.S. 143-215.1(b)(3) and (4) authorizing a
35 category of similar activities or discharges.

36 ~~[(10) "Gravel" means a clean or washed, loose, uniformly graded aggregate of stones from a lower limit~~
37 ~~of 0.08 inches to an upper limit of 3.0 inches in size.]~~

- 1 ~~(41)~~(10) "Infiltration Systems" mean stormwater control systems designed to allow runoff to pass
2 or move (infiltrate/exfiltrate) into the soil.
- 3 ~~(42)~~(11) "Notice of Intent" means a written notification to the Division that an activity or
4 discharge is intended to be covered by a general permit and takes the place of the "application"
5 application used with individual permits.
- 6 ~~(43)~~(12) "Off-site Stormwater Systems" mean stormwater management systems that are located
7 outside the boundaries of the specific project in question, but designed to control stormwater
8 drainage from that project and other potential development sites. These systems shall designate
9 responsible parties for operation and maintenance and may be owned and operated as a duly
10 licensed utility or by a local government.
- 11 ~~(24)~~~~(14)~~(13) "One-year, 24-hour storm" means a rainfall of an intensity expected to be equaled or
12 exceeded, on average, once in 12 months and with a duration of 24 hours.
- 13 ~~(13)~~~~(15)~~(14) "On-site Stormwater Systems" mean the systems necessary to control stormwater within
14 an individual development project and located within the project boundaries.
- 15 ~~(26)~~~~(16)~~(15) "Permeable pavement" means paving material that absorbs water or allows water to
16 infiltrate through the paving material. Permeable pavement materials include porous concrete,
17 permeable interlocking concrete pavers, concrete grid pavers, porous asphalt, and any other
18 material with similar characteristics. ~~Compacted gravel shall not be considered permeable~~
19 ~~pavement.~~
- 20 ~~(14)~~~~(17)~~(16) "Redevelopment" means any land disturbing activity that does not result in a net increase
21 in built-upon area and that provides greater or equal stormwater control than the previous
22 ~~development~~ development. ~~(stormwater Stormwater controls shall not be allowed where otherwise~~
23 ~~prohibited).~~ prohibited.
- 24 ~~(27)~~~~(18)~~(17) "Residential development activities" has the same meaning as in 15A NCAC 02B
25 .0202(54).
- 26 ~~(15)~~~~(19)~~(18) "Seasonal High Water Table" means the highest level that groundwater, at atmospheric
27 pressure, reaches in the soil in most years. The seasonal high water table is usually detected by the
28 mottling of the soil that results from mineral leaching.
- 29 ~~(16)~~~~(20)~~(19) "Sedimentation/Erosion Control Plan" means any plan, amended plan or revision to an
30 approved plan submitted to the Division of Energy, Mineral, and Land Resources or delegated
31 authority in accordance with G.S. 113A-57.
- 32 ~~(17)~~~~(21)~~(20) "Stormwater" is defined in G.S. ~~143, Article 21, 143-213(16a).~~
- 33 ~~(18)~~~~(22)~~(21) "Stormwater Collection System" means any conduit, pipe, channel, curb or gutter for the
34 primary purpose of transporting (not treating) runoff. A stormwater collection system does not
35 include vegetated swales, swales stabilized with armoring or alternative methods where natural
36 topography or other physical constraints prevents the use of vegetated swales (subject to case-by-
37 case review), curb outlet systems, or pipes used to carry drainage underneath built-upon surfaces

1 that are associated with development controlled by the provisions of Rule .1003(d)(1) in this
2 Section.

3 ~~(19)~~~~(23)~~~~(22)~~ "10 Year Storm" means the surface runoff resulting from a rainfall of an intensity
4 expected to be equaled or exceeded, on the average, once in 10 years, and of a duration which will
5 produce the maximum peak rate of runoff, for the watershed of interest under average antecedent
6 wetness conditions.

7 ~~(22)~~~~(24)~~~~(23)~~ "Vegetative Buffer" means an area of natural or established vegetation directly adjacent
8 to surface waters through which stormwater runoff flows in a diffuse manner to protect surface
9 waters from degradation due to development activities. The width of the buffer is measured
10 horizontally from the normal pool elevation of impounded structures, from the bank of each side
11 of streams or rivers, and from the mean high water line of tidal waters, perpendicular to the
12 shoreline.

13 ~~(25)~~ — "BMP" means ~~Best Management Practice.~~

14 ~~(28)~~~~(25)~~~~(24)~~ "Vegetative conveyance" means a permanent, designed waterway lined with vegetation
15 that is used to convey stormwater runoff at a non-erosive velocity within or away from a
16 developed area.

17 ~~(23)~~~~(26)~~~~(25)~~ "Vegetative Filter" means an area of natural or planted vegetation through which
18 stormwater runoff flows in a diffuse manner so that runoff does not become channelized and
19 which provides for control of stormwater runoff through infiltration of runoff and filtering of
20 pollutants. The defined length of the filter shall be provided for in the direction of stormwater
21 flow.

22 ~~(20)~~~~(27)~~~~(26)~~ "Water Dependent Structures" means a structure for which the use requires access or
23 proximity to or siting within surface waters to fulfill its basic purpose, such as boat ramps, boat
24 houses, docks, and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies,
25 parking lots and boat storage areas are not water dependent uses.

26 ~~(21)~~~~(28)~~~~(27)~~ "Wet Detention Pond" means a structure that provides for the storage and control of
27 runoff and includes a designed and maintained permanent pool volume.

28
29 *History Note: Authority G.S. 143-213; 143-214.1; 143-214.7; 143-215.3(a)(1);*
30 *Eff. January 1, 1988;*
31 *Amended Eff. August 1, 2012 (see S.L. 2012-143, s.1.(f)); July 3, 2012; December 1, 1995;*
32 *September 1, 1995;*
33 *Temporary Amendment Eff. March 28, 2014;*
34 *Amended Eff. January 1, 2015.*