

**Environmental Management Commission's  
Statement of Impact of Proposed Amendment to  
Exclude Gravel from "Built-Upon Area"**

The Environmental Management Commission (EMC) seeks to amend 15A NCAC 02H .1002 in order to comply with a recent change in state law. Such an amendment is authorized by Section 51.(d) of the Session Laws.

Specifically, during the recent legislative session, N.C.G.S. § 143-214.7 was amended to exclude gravel from the definition of "built-upon area." Act of Aug. 23, 2013, sec. 51.(a), 2013 N.C. Sess. Laws 413. The legislation, however, did not define the term "gravel." Within the stone, sand and gravel industry, gravel is defined as "a loose aggregate of small rounded water-worn or pounded stones." In addition, per the "Standard Test Method for Particle-Size Analysis of Soil" as published by the American National Standards Institute (ASTM) as Standard D422-63, gravel is classified to have a diameter ranging from 2.00 millimeters up to 4.74 millimeters. Such material is often used as walkways through gardens and yards or around vegetation as it is permeable, allowing adequate drainage for precipitation yet harder and more aesthetically pleasing than exposed soil. Placement of gravel is normally conducted during dry periods and heavy vehicular and foot traffic is avoided in the gravel area during and immediately after its placement to avoid compaction of the subsurface to allow water to infiltrate into the subsoil. In contrast, laypersons often imprecisely use the term "gravel" to refer to *any* aggregate material, such as the non-gravel crushed stone material that is used in constructing roads or parking lots. Such material may be either impervious due to compaction at the time of installation or partially impervious but installed on a compacted surface that does not allow water to infiltrate into the subsoil. As a result, if an aggregate crushed stone material as opposed to gravel is used, it could cause water (including pollutants and sediment) to runoff the surface at higher velocities and volumes than the stormwater and sedimentation control measures were designed for and can handle. In this way, stormwater designs may be overwhelmed or bypassed and the unintended consequence may be the gradual or catastrophic release of pollutants and sediment into the environment, either by short-circuiting through or completely failing under-designed stormwater and sedimentation control measures.

Since the amendment of N.C.G.S. § 143-214.7 became effective in August, the regulated community, in dealings with the Division of Energy, Mineral, and Land Resources (DEMLR), has questioned how to interpret the imprecise use of the term "gravel" in the amended statute. For these reasons, the EMC is pursuing temporary rulemaking to define the term used in the amended statute in accordance with industry standards, to prevent adverse environmental impacts, and to direct the regulated community to the established guidelines set forth in the DEMLR's best management practices for stormwater control.

## 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 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.

(2) "CAMA Major Development Permits" mean those permits or revised permits required by the Coastal Resources Commission according to 15A NCAC 7J 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 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 .1003(d)(1) of this 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" 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 aggregation of small rounded water-worn or pounded stones ranging in size from 2.00 mm to 4.74 mm. Gravel is not crushed stone or rock.

(11) "Infiltration Systems" mean stormwater control systems designed to allow runoff to pass or move (infiltrate/exfiltrate) into the soil.



(12) "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 "application" used with individual permits.

(13) "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.

(14) "On-site Stormwater Systems" mean the systems necessary to control stormwater within an individual development project and located within the project boundaries.

(15) "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 (stormwater controls shall not be allowed where otherwise prohibited).

(16) "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.

(17) "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.

(18) "Stormwater" is defined in G.S. 143, Article 21.

(19) "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.

(20) "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.

(21) "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.

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

(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.

(24) "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.

(25) "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.

(26) "BMP" means Best Management Practice.

(27) "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.

(28) "Residential development activities" has the same meaning as in 15A NCAC 02B .0202(54).

(29) "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.

*History Note:* Authority G.S. 143-213; 143-214.1; 143-214.7; 143-215.3(a)(1);  
Eff. January 1, 1988;

*Amended Eff.* August 1, 2012 (see S.L. 2012-143, s.1.(f)); July 3, 2012; December 1, 1995; September 1, 1995.



## 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 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 gravel.

(2) — "CAMA Major Development Permits" mean those permits or revised permits required by the Coastal Resources Commission according to 15A NCAC 7J 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.

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