

1 15A NCAC 02H .0126 is readopted with changes as published in 30:16 NCR 1730-1803 as follows:

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3 **15A NCAC 02H .0126 STORMWATER DISCHARGES**

4 (a) Stormwater discharges subject to ~~NPDES~~ National Pollutant Discharge Elimination System (NPDES)
5 permitting are addressed in this section, which incorporates, supplements supplements, and elaborates on the federal
6 rules on stormwater NPDES discharges. Other stormwater control requirements are addressed in Section 02H .1000
7 entitled "~~Stormwater Management~~", "Stormwater Management," but may also be addressed in sections dedicated to
8 particular water classifications or circumstances.

9 (b) Facilities and Regulated Entities (~~REs~~), (REs) subject to NPDES ~~permitting~~, permitting shall be issued NPDES
10 permits for stormwater discharges to surface ~~waters~~, waters in accordance with this Rule, ~~15A NCAC 02H Rules~~
11 ~~.0150 through 02H .0154, .0153 of this Subchapter~~, and United States Environmental Protection Agency (EPA)
12 regulations 40 CFR 122.21, 122.26, and 122.28 through [~~122.37,~~ 122.37 (1 July 2015 Edition)] which are hereby
13 incorporated by ~~reference including any subsequent amendments~~, reference, not including subsequent amendments
14 and editions. These federal regulations ~~can~~ may be accessed ~~on the world wide web at~~
15 ~~http://www.gpoaccess.gov/cfr/index.html~~, at no cost at http://www.gpo.gov/fdsys/. State regulations ~~can~~ may be
16 accessed ~~on the world wide web~~ at http://www.ncoah.com/rules.

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18 *History Note: Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1);*

19 *Eff. November 1, 1986;*

20 *Amended Eff. August 3, 1992;*

21 *Temporary Amendment Eff. November 1, 2002;*

22 *Temporary Amendment returned to Agency by Rules Review Commission on January 22, 2004;*

23 *Amended Eff. July 3, ~~2012~~, 2012;*

24 *Readopted Eff. January 1, 2017.*

1 15A NCAC 02H .0150 is readopted with changes as published in 30:16 NCR 1730-1803 as follows:

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3 **15A NCAC 02H .0150 DEFINITIONS ~~DEFINITIONS:~~ NPDES MS4 STORMWATER**

4 Federal definitions for NPDES discharges at 40 C.F.R. 122.2 and ~~422.26(b)~~, 122.26(b)(1 July [2003] 2015 Edition)
5 are incorporated herein by ~~reference [including any subsequent editions.]~~ reference, not including subsequent
6 amendments and editions. These federal regulations ~~[can]~~ may be accessed at no cost at <http://www.gpo.gov/fdsys/>.
7 ~~State definitions for NPDES discharges are set out in G.S. 143-212 through G.S. 143-213 and 15A NCAC 02H~~
8 ~~.0103. As~~ The definition of any word or phrase used in the NPDES municipal separate storm sewer system (MS4)
9 stormwater program, the following additional definitions apply: program shall be the same as given in Article 21,
10 Chapter 143 of the General Statutes of North Carolina, as amended, and Rule .1002 of this Subchapter. Other words
11 and phrases are defined as follows:

12 ~~(1) The definitions set out in 15A NCAC 02H .1002 (Definitions).~~

13 ~~(2)(1)~~ "Division" means the Division of ~~Water Quality~~ Energy, Mineral, and Land Resources in the
14 Department.

15 ~~(2)~~ "MS4" means municipal separate storm sewer system.

16 (3) "Planning jurisdiction" means the territorial jurisdiction within which a municipality exercises the
17 powers authorized by Article 19 of Chapter 160A of the General Statutes, or a county ~~may~~
18 exercises the powers authorized by Article 18 of Chapter 153A of the General Statutes.

19 (4) "Public entity" means the United ~~States;~~ States, the ~~State;~~ State, a city, village, township, county,
20 school district, public college or university, ~~or~~ single-purpose governmental ~~agency;~~ agency, or
21 any other governing body that is created by federal or State law.

22 (5) "Regulated entity" means any public entity that must obtain a ~~Phase II~~ National Pollutant
23 Discharge Elimination System (NPDES) permit for stormwater management for its municipal
24 separate storm sewer system (MS4).

25 (6) "Sensitive receiving waters" means any of the following:

26 (a) Waters waters that are classified as high quality, outstanding resource, shellfish, trout, or
27 nutrient sensitive waters in accordance with ~~Paragraphs (d) and (e) of 15A NCAC 02B~~
28 ~~.0101 .0101, (Procedures for Assignment of Water Quality Standards — General~~
29 ~~Procedures), 15A NCAC 02B .0200, and 15A NCAC 02B~~ .0301, .0301;

30 (b) Waters waters that are occupied by or designated as critical habitat for aquatic animal
31 species that are listed as threatened or endangered by the United States Fish and Wildlife
32 Service or the National Marine Fisheries Service under the provisions of the Endangered
33 Species Act of 1973 (Pub. L. No. 93-205; 87 Stat. 884; 16 U.S.C. § 1531, et seq.), as
34 ~~amended;~~ amended; or

35 (c) Waters waters for which the ~~designated use,~~ "best usage," as described by the
36 classification system set ~~out~~ forth in ~~Paragraphs (c), (d), and (e) of 15A NCAC 02B .0101~~
37 ~~.0101, (Procedures for Assignment of Water Quality Standards — General Procedures),~~

1 15A NCAC 02B .0200, and 15A NCAC 02B .0301 have been determined to be impaired
2 in accordance with the requirements of subsection (d) of 33 U.S.C. §§ 1313, §§ 1313,
3 which is incorporated herein by reference, not including subsequent amendments and
4 editions. This federal code ~~can~~ may be accessed at no cost at
5 <http://www.gpo.gov/fdsys/>.

- 6 (7) "Significant contributor of pollutants" means a municipal separate storm sewer system (MS4) or a
7 discharge that contributes to the pollutant loading of a water body or that destabilizes the physical
8 structure of a water body such that the contribution to pollutant loading or the destabilization may
9 reasonably be expected to adversely affect have an ~~adverse impact~~ "adverse impact," as that term
10 is defined in 15A NCAC 02H .1002, on the quality and ~~uses~~ best usage of the water body. ~~Uses~~
11 "Best usage" of a water body shall be determined pursuant to 15A NCAC 02B .0211 through 15A
12 NCAC 02B .0222 (~~Classifications and Water Quality Standards Applicable to Surface Waters and~~
13 ~~Wetlands of North Carolina~~) and 15A NCAC 02B ~~.0300, et seq. .0300.~~ (~~Assignment of Stream~~
14 ~~Classifications~~).
- 15 (8) "Total maximum daily load (TMDL) implementation plan" means a written, quantitative ~~plan~~
16 plan, and analysis for attaining and maintaining water quality standards in all seasons for a specific
17 water body and pollutant.

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19 History Note: Authority G.S. 143-213; 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 2006-246;
20 Eff. July 3, ~~2012~~, 2012;
21 Readopted Eff. January 1, 2017.
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1 15A NCAC 02H .0151 is readopted as published in 30:16 NCR 1730-1803 as follows:

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3 **15A NCAC 02H .0151 NPDES MS4 STORMWATER: DESIGNATION AND PETITION PROCESS**

4 (a) Designation of Regulated Entities. A public entity that owns or operates a municipal separate storm sewer system
5 (MS4) may be designated as a regulated entity through federal designation, through ~~a~~ the State designation process,
6 or under a total maximum daily load (TMDL) implementation ~~plan~~ plan, as provided in this Paragraph.

7 (1) Federal designation. A public entity that owns or operates a municipal separate storm sewer system
8 (MS4) may be designated as a regulated entity pursuant to 40 ~~Code of Federal Regulations~~ CFR §
9 122.32. These federal regulations [are—available] may be accessed at no cost at
10 <http://www.gpo.gov/fdsys/>.

11 (2) State designation process. The Commission shall designate a public entity that owns or operates a
12 municipal separate storm sewer system (MS4) as a regulated entity as provided in Subparagraphs
13 (2)(A) through (F) below:

14 (A) Designation schedule. The Commission shall implement the designation process in
15 accordance with the schedule for review and revision of basinwide water quality
16 management plans as provided in G.S. 143-215.8B(c).

17 (B) Identification of candidate regulated entities. The Commission shall identify a public entity
18 as a candidate for designation as a regulated entity if the municipal separate storm sewer
19 system (MS4) either:

20 (i) ~~Discharges~~ discharges stormwater that has the potential to ~~adversely~~ have an
21 [adverse] impact “adverse impact,” as that term is defined in 15A NCAC 02H
22 .1002, on water quality. An adverse impact on water quality includes any activity
23 that causes or contributes to a violation of water quality standards, including, but
24 not limited to, any activity that impairs designated uses or that has a significant
25 biological or habitat impact; quality; or

26 (ii) ~~Serves~~ serves a public entity that has not been designated pursuant to Item (1) of
27 this Paragraph and that has either a population of more than 10,000 or more than
28 4,000 housing ~~units~~ units, and either a population density of 1,000 people per
29 square mile or more or more than 400 housing units per square mile.

30 (C) Notice and comment on candidacy. The Commission shall notify each public entity
31 identified as a candidate for designation as a regulated entity. After notification of each
32 public entity, the Commission shall publish a list of all public entities within a river basin
33 that have been identified as candidates for designation. This list shall be published on the
34 Division website at <http://portal.ncdenr.org/web/lr/stormwater>. The Commission shall
35 accept public comment on the proposed designation of a public entity as a regulated entity
36 for a period of not less than 30 days, days from the date of publication.

- (D) Designation of regulated entities. After review of the public comment, the Commission shall make a determination on designation for each of the candidate public entities. The Commission shall designate a candidate public entity that owns or operates a municipal separate storm sewer system (MS4) as a regulated public entity only if the Commission determines either that:
- (i) ~~The~~ the public entity has an actual population growth rate that exceeds 1.3 times the State population growth rate for the previous 10 years;
 - (ii) ~~The~~ the public entity has a projected population growth rate that exceeds 1.3 times the projected State population growth rate for the next 10 years;
 - (iii) ~~The~~ the population of the public entity ~~has an actual~~ is more than 15 percent greater than its population ~~increase that exceeds 15 percent of its previous population for the previous two years; years prior to the publication of the list identifying the public entity as a candidate for designation.~~
 - (iv) ~~The~~ the municipal separate storm sewer system (MS4) discharges stormwater that ~~adversely~~ has adverse impacts on water quality; or
 - (v) ~~The~~ the municipal separate storm sewer system (MS4) discharges stormwater that results in a significant contribution of pollutants to receiving waters, taking into account the effectiveness of other applicable water quality protection programs. To determine the effectiveness of other applicable water quality protection programs, the Commission shall consider the water quality of the receiving waters and whether the waters support the ~~uses set out in Paragraphs (c), (d), and (e) of 15A NCAC 02B .0101 (Procedures for Assignment of Water Quality Standards—General Procedures) and the specific classification of the waters set out in 15A NCAC 02B .0300, et seq. (Assignment of Stream Classifications).~~ best usages.
- (E) Notice of designation. The Commission shall provide written notice to each public entity of its designation determination. For a public entity designated as a regulated entity, the notice shall state the basis for the designation and the date on which an application for ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a NPDES permit for stormwater management ~~must~~ shall be submitted to the Commission.
- (F) Application schedule. A public entity that has been designated as a regulated entity pursuant to this subdivision ~~must~~ shall submit its application for ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a NPDES permit for stormwater management within 18 months of the date of notification.
- (3) Designation under a total maximum daily load (TMDL) implementation plan. The Commission shall designate an owner or operator of a small municipal separate storm sewer system (MS4) as a regulated entity if the municipal separate storm sewer system (MS4) is specifically listed by name as a source of pollutants for urban stormwater in a total maximum daily load (TMDL)

implementation plan developed in accordance with subsections (d) and (e) of 33 U.S.C. § 1313- § 1313, which are incorporated herein by reference. This federal code [is available] may be accessed at no cost at <http://www.gpo.gov/fdsys/>. The Commission shall provide written notice to each public entity of its designation determination. For a public entity designated as a regulated entity, the notice shall state the basis for the designation and the date on which an application for ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a NPDES permit for stormwater management ~~must~~ shall be submitted to the Commission. A public entity that has been designated as a regulated entity pursuant to this Item ~~must~~ shall submit its application for ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a NPDES permit for stormwater management within 18 months of the date of notification.

(b) Petition Process. A petition may be submitted to the Commission to request that an owner or operator of a municipal separate storm sewer system (MS4) or a person who discharges stormwater be required to obtain ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a NPDES permit for stormwater management as follows:

(1) Connected discharge petition. An owner or operator of a permitted municipal separate storm sewer system (MS4) may submit a petition to the Commission to request that a person who discharges into the permitted municipal separate storm sewer system (MS4) be required to obtain a separate ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ NPDES permit for stormwater management. The Commission shall grant the petition and require the person to obtain a separate ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ NPDES permit for stormwater management if the petitioner shows that the person's discharge flows or will flow into the permitted municipal separate storm sewer system (MS4).

(2) Adverse impact petition. Any person may submit a petition to the Commission to request that an owner or operator of a municipal separate storm sewer system (MS4) or a person who discharges stormwater be required to obtain ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a NPDES permit for stormwater management as follows:

(A) Petition review. The Commission shall grant the petition and require the owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater to obtain ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a NPDES permit for stormwater management if the petitioner shows any of the following:

- (i) ~~The the~~ municipal separate storm sewer system (MS4) or the discharge discharges stormwater or has the potential to discharge stormwater that may cause or contribute to a water quality standard violation;
- (ii) ~~The the~~ municipal separate storm sewer system (MS4) or the discharge ~~provides a significant contribution of pollutants~~ is a significant contributor of pollutants to receiving waters; or

(iii) ~~The the~~ municipal separate storm sewer system (MS4) or the discharge is specifically listed by name as a source of pollutants for urban stormwater in a total maximum daily load (TMDL) implementation plan developed in accordance with subsections (d) and (e) of 33 U.S.C. § 1313.

(B) Types of evidence for required showing. Petitioners may make the ~~required~~ showing ~~of adverse impact required by Subparagraph (b)(2)(A) of this Rule~~ by providing to the Commission the following information:

- (i) ~~Monitoring monitoring~~ data that ~~includes, at a minimum,~~ includes representative sampling of the municipal separate storm sewer system (MS4) or discharge and information describing how the sampling is representative. The petitioner ~~must~~ shall notify the owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater of its intent to conduct monitoring activities prior to conducting those activities;
- (ii) ~~Scientific~~ scientific or technical literature that supports the sampling methods;
- (iii) ~~Study~~ studies and technical information on land uses in the drainage area and the characteristics of stormwater runoff from these land uses;
- (iv) ~~A a~~ map that delineates the drainage area of the petitioned entity; the location of sampling stations; the location of the stormwater outfalls in the adjacent area of the sampling locations; general features, ~~including, but not limited to,~~ including surface waters, major roads, and political boundaries; and areas of concern regarding water quality;
- (v) ~~For~~ for stormwater discharges to impaired waters, documentation that the receiving waters are impaired or degraded and monitoring data that demonstrates that the municipal separate storm sewer system (MS4) or discharge contributes pollutants for which the waters are impaired or degraded; or
- (vi) ~~For~~ for stormwater discharges to nonimpaired waters, monitoring data that demonstrates that the owner or operator of the municipal separate storm sewer system (MS4) or the person who discharges stormwater is a significant contributor of pollutants to the receiving waters.

(C) Water quality protection program offset. If the petitioner makes the required showing, the Commission shall review the effectiveness of any existing water quality protection programs that may offset the need to obtain ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a NPDES permit for stormwater management. To determine the effectiveness of other applicable water quality protection programs, the Commission shall consider the water quality of the receiving waters and whether the waters support the ~~uses set out in Paragraphs (c), (d), and (e) of 15A NCAC 02B .0101 (Procedures for Assignment of Water Quality Standards — General Procedures)~~ and the specific

classification of the waters set out in 15A NCAC 2B .0300, et seq. (Assignment of Stream Classifications). ~~best usages.~~ The Commission may deny the petition if it finds that existing water quality protection programs are adequate to address stormwater impacts on sensitive receiving waters and to ensure compliance with a TMDL implementation plan.

(3) Petition administration. The Commission shall process petitions in the following manner:

~~(A)~~ ~~The Commission shall only accept petitions submitted on Department forms.~~

~~(B)~~(A) A separate petition ~~must~~ shall be filed for each municipal separate storm sewer system (MS4) or discharge.

~~(C)~~(B) The Commission shall evaluate only complete petitions. ~~[those]~~ petitions that contain all information required by Part (2)(B) of this Paragraph. The Commission shall make a determination on the completeness of a petition within 90 days of receipt of the petition, or it shall be deemed complete. If the Commission requests additional information, the petitioner may submit additional ~~information;~~ information and the Commission ~~will~~ shall determine, within 90 days of receipt of the additional information, whether the information completes the petition.

~~(D)~~(C) The petitioner shall provide to the chief administrative officer of the municipal separate storm sewer system (MS4) or the person in control of the discharge a copy of the petition and a copy of any subsequent additional information submitted to the Commission ~~to the chief administrative officer of the municipal separate storm sewer system (MS4) or the person in control of the discharge~~ within 48 hours of each submittal.

~~(E)~~(D) The Commission shall post all petitions on the Division ~~Web site~~ website at <http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-program> and maintain copies available for inspection at the Division's office. The Commission shall accept and consider public comment for ~~at least~~ 30 days from the date of posting.

~~(F)~~(E) The Commission may hold a public hearing on a petition and shall hold a public hearing on a petition if it receives a written request for a public hearing within the public comment ~~period,~~ period and the Commission determines that there is a significant public interest in holding a public hearing. The Commission's determination to hold a public hearing shall be made no less than 15 days after the close of the public comment period. The Commission shall schedule the hearing to be held within 45 days of the close of the initial public comment period and shall accept and consider additional public comment through the date of the hearing.

~~(G)~~(F) An additional petition for the same municipal separate storm sewer system (MS4) or discharge received during the public comment period shall be considered as comment on the original petition. An additional petition for the same municipal separate storm sewer system (MS4) or discharge received after the public comment period ends and before the

1 final determination is made shall be considered incomplete and held pending a final
2 determination on the original petition.

3 (i) If the Commission determines that the owner or operator of the municipal separate
4 storm sewer system (MS4) or the person who discharges stormwater is required
5 to obtain ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a
6 NPDES permit for stormwater management, any other petitions for ~~that the same~~
7 municipal separate storm sewer system (MS4) or discharge that were held shall
8 be considered in the development of the ~~Phase II National Pollutant Discharge~~
9 ~~Elimination System (NPDES)~~ NPDES permit for stormwater management.

10 (ii) If the Commission determines that the owner or operator of the municipal separate
11 storm sewer system (MS4) or the person who discharges stormwater is not
12 required to obtain ~~a Phase II National Pollutant Discharge Elimination System~~
13 ~~(NPDES)~~ a NPDES permit for stormwater management, an additional petition for
14 the municipal separate storm sewer system (MS4) or discharge ~~must~~ shall present
15 new information as required by Part (2)(B) of this Paragraph or demonstrate that
16 conditions have changed in order to be considered. If new information is not
17 provided, the petition shall be returned as ~~substantially~~ incomplete.

18 ~~(H)(G)~~ The Commission shall evaluate a petition within 180 days of the date on which it is
19 determined to ~~be complete.~~ contain all information required by Part (2)(B) of this
20 Paragraph. If the Commission determines that the owner or operator of the municipal
21 separate storm sewer system (MS4) or the person who discharges stormwater is required
22 to obtain ~~a Phase II National Pollutant Discharge Elimination System (NPDES)~~ a NPDES
23 permit for stormwater management, the Commission shall notify the owner or operator of
24 the municipal separate storm sewer system (MS4) or the person who discharges stormwater
25 within 30 days of the requirement to obtain the permit. The owner or operator of the
26 municipal separate storm sewer system (MS4) or the person who discharges stormwater
27 ~~must~~ shall submit its application for ~~a Phase II National Pollutant Discharge Elimination~~
28 ~~System (NPDES)~~ a NPDES permit for stormwater management within 18 months of the
29 date of notification.

30 (c) Exemption. A municipality with a population of less than 1,000, including a municipality designated as an
31 urbanized area under the most recent federal decennial census, is not required to obtain ~~a Phase II National Pollutant~~
32 ~~Discharge Elimination System (NPDES)~~ a NPDES permit for stormwater management unless the municipality is
33 shown to be contributing to an impairment of State waters, as determined under the requirements of 33 U.S.C. §
34 1313(d).

35 (d) Waiver. The Department may waive the requirement for a Phase II National Pollutant Discharge Elimination
36 System (NPDES) NPDES permit for stormwater management ~~requirement~~ pursuant to 40 ~~Code of Federal Regulations~~
37 CFR §§ 122.32(d) or (e).

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2 *History Note:* Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2006-246;

3 Eff. July 3, ~~2012~~, 2012;

4 Readopted Eff. January 1, 2017.

1 15A NCAC 02H .0153 is readopted with changes as published in 30:16 NCR 1730-1803 as follows:

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3 **15A NCAC 02H .0153 NPDES MS4 STORMWATER: PROGRAM IMPLEMENTATION**

4 (a) Permit Standards. To obtain a ~~Phase II National Pollutant Discharge Elimination System (NPDES)~~ NPDES
5 permit for stormwater management, an applicant ~~shall, to the extent authorized by law, shall~~ develop, implement, and
6 enforce a stormwater management plan approved by the Commission that satisfies the six ~~minimum control measures~~
7 "minimum control measures" required by 40 ~~Code of Federal Regulations~~ CFR § 122.34(b). These federal regulations
8 can ~~may~~ be accessed at no cost at <http://www.gpo.gov/fdsys/>. The evaluation of the post-construction stormwater
9 management measures required by 40 ~~Code of Federal Regulations~~ CFR § 122.34(b)(5) shall be conducted as provided
10 in ~~Rule .0154(a) of this Section.~~ Rule .1017 of this Subchapter. Regulated entities may propose using any existing
11 State or local program that relates to the minimum control measures to meet, either in whole or in part, the requirements
12 of the minimum control measures.

13 (b) Implementation Schedule. The requirements of this ~~act~~ Rule shall be implemented as follows:

- 14 (1) ~~A~~ a regulated entity ~~must~~ shall apply within 18 months of notification by the Department that the
15 regulated entity is subject to regulation pursuant to Rules .0151(a) and ~~(b)~~, (b) and ~~.0152 of this~~
16 ~~Section.~~ Rule .1016 of this Subchapter;
- 17 (2) ~~Public~~ public education and outreach minimum measures shall be implemented ~~no later than~~ within
18 12 months from date of permit ~~issuance.~~ issuance;
- 19 (3) ~~A~~ a regulated entity ~~must~~ shall implement its post-construction program no later than 24 months
20 from the date the permit is ~~issued.~~ issued; and
- 21 (4) ~~The~~ the Department shall include permit conditions that establish schedules for implementation of
22 each minimum control measure of the regulated entity's stormwater management program based on
23 the submitted application so that the regulated entity fully implements its permitted program within
24 five years from permit issuance.

25 (c) Federal and State Projects. The Commission shall have jurisdiction, to the exclusion of local governments, to
26 issue a ~~National Pollutant Discharge Elimination System (NPDES)~~ NPDES permit for stormwater management to a
27 federal or State agency that applies to all or part of the activities of the agency or that applies to the particular project.
28 If a federal or State agency does not hold a ~~Phase I or Phase II~~ MS4 National Pollutant Discharge Elimination System
29 ~~(NPDES)~~ NPDES permit for stormwater management that applies to the particular project, project within North
30 Carolina, then the project ~~is~~ shall be subject to the stormwater management requirements of this Rule as implemented
31 by the Commission or by a local government. The provisions of G.S. 153A-347 and G.S. 160A-392 apply to the
32 implementation of this Rule.

33 (d) General Permit. The Commission shall develop and issue a ~~Phase II National Pollutant Discharge Elimination~~
34 ~~System (NPDES)~~ NPDES general permit for stormwater management. The general permit requirements for post-
35 construction stormwater management measures required by 40 ~~Code of Federal Regulations~~ CFR § 122.34(b)(5) shall
36 require a permittee to meet the standards set ~~out~~ forth in ~~Rule .0154(a) of this Section~~ but shall not impose any
37 ~~requirement on the permittee that exceeds the standards set out in Rule .0154(a) of this Section.~~ Rule .1017 of this

1 ~~Subchapter.~~ After the Commission has issued a ~~Phase II~~ National Pollutant Discharge Elimination System (NPDES)
2 general permit for stormwater management, a public entity that has applied for a permit may submit a notice of intent
3 to be covered under the general permit to the Commission. The notice of intent shall be submitted to the Division
4 accompanied by the application fee as set forth in G.S. 143-215.3D. The Commission shall treat an application for a
5 permit as an application for an individual permit unless the applicant submits a notice of intent to be covered under a
6 general permit under this Paragraph.

7 (e) The exclusions from the requirement to obtain a ~~Phase II National Pollutant Discharge Elimination System~~
8 ~~(NPDES)~~ NPDES permit for stormwater management set out in 40 ~~Code of Federal Regulations~~ CFR § 122.3,
9 including the exclusions for certain nonpoint source agricultural and silvicultural activities, apply to the provisions of
10 this Rule.

11 (f) In order to fulfill the post-construction minimum control measure requirement for linear transportation projects,
12 including private transportation projects constructed to North Carolina Department of Transportation standards that
13 will be conveyed to the State or another public entity upon completion, a permittee, delegated program, or regulated
14 entity may use the Stormwater Best Management Practices Toolbox (Version 2, April 2014 Edition) developed by the
15 North Carolina Department of Transportation which is herein incorporated by reference, including any subsequent
16 amendments and editions, and [available] may be accessed at no cost at
17 [[https://connect.ncdot.gov/resources/hydro/Pages/Stormwater Program.aspx](https://connect.ncdot.gov/resources/hydro/Pages/Stormwater%20Program.aspx)]
18 [https://connect.ncdot.gov/resources/hydro/HSPDocuments/2014 BMP Toolbox.pdf](https://connect.ncdot.gov/resources/hydro/HSPDocuments/2014_BMP_Toolbox.pdf).

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20 *History Note:* Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2006-246; S.L. 2014-1;
21 Eff. July 3, 2012, 2012;
22 Readopted Eff. January 1, 2017.
23

1 15A NCAC 02H .1001 is readopted with changes as published in 30:16 NCR 1730-1803 as follows:

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3 **15A NCAC 02H .1001 POST-CONSTRUCTION STORMWATER MANAGEMENT POLICY**
4 **MANAGEMENT: PURPOSE AND SCOPE**

5 ~~The Rules in this Section set forth the requirements for application and issuance of permits for stormwater management~~
6 ~~systems in accordance with G.S. 143-215.1(d) and 15A NCAC 2H .0200. These requirements to control pollutants~~
7 ~~associated with stormwater runoff apply to development of land for residential, commercial, industrial, or institutional~~
8 ~~use but do not apply to land management activities associated with agriculture or silviculture unless specifically~~
9 ~~addressed in special supplemental classifications and management strategies adopted by the Commission. The~~
10 ~~purpose of this Section is to protect surface waters and aquatic resources from the adverse impacts of stormwater~~
11 ~~runoff from development activities.~~

12 (1) APPLICABILITY. This Section shall apply to development projects and major modifications of
13 development projects for residential, commercial, industrial, or institutional use that are subject to
14 one or more of the post-construction stormwater management programs listed in Item (2) of this
15 Rule. This Section shall not apply to:

16 (a) land management activities associated with agriculture or silviculture;

17 (b) activities of the North Carolina Department of Transportation (NCDOT) that are regulated
18 in accordance with the provisions of NPDES Permit Number NCS000250;

19 (c) linear transportation projects undertaken by an entity other than the NCDOT when:

20 (i) the project is constructed to NCDOT standards and is in accordance with the
21 NCDOT Stormwater Best Management Practices Toolbox (Version 2, April 2014
22 Edition) which is herein incorporated by reference, including any subsequent
23 amendments and editions, and [available] may be accessed at no cost at
24 [[https://connect.ncdot.gov/resources/hydro/Pages/Stormwater Program.aspx](https://connect.ncdot.gov/resources/hydro/Pages/Stormwater%20Program.aspx);
25 [https://connect.ncdot.gov/resources/hydro/HSPDocuments/2014 BMP Toolbox.](https://connect.ncdot.gov/resources/hydro/HSPDocuments/2014_BMP_Toolbox.pdf)
26 pdf;

27 (ii) [Upon] upon completion, the project will be conveyed either to the NCDOT or
28 another public entity and will be regulated in accordance with that entity's NPDES
29 MS4 stormwater permit; and

30 (iii) the project is not part of a common plan of [development.] development;

31 (d) development activities that have already received a State Stormwater Permit or
32 Certification where no modification or a minor modification is requested. These activities
33 shall follow their existing permit conditions.

34 (e) airport facilities that are deemed permitted in accordance with G.S. 143-214.7(c4); and

35 (f) [redevelopment] "redevelopment" as [that] the term is defined in G.S. 143-214.7(a1).

36 (2) STORMWATER PROGRAMS. The post-construction stormwater management programs consist
37 of the following:

- (a) Coastal Counties – 15A NCAC 02H .1019;
- (b) Non-Coastal County High Quality Waters and Outstanding Resource Waters – 15A NCAC 02H .1021;
- (c) NPDES MS4 Stormwater – 15A NCAC 02H .0126; 15A NCAC 02H .0150, .0151; 15A NCAC 02H .0153; 15A NCAC 02H .1017;
- (d) Urbanizing Areas – 15A NCAC 02H .1016; and
- (e) Universal Stormwater Management Program- 15A NCAC 02H .1020.
- (3) PERMIT REQUIRED. A permit shall be required for development activities that are subject to any of the post-construction stormwater management programs listed in Item (2) of this Rule. The permit shall be issued by the implementing authority in accordance with this Section. If a project is subject to more than one post-construction stormwater management program, the requirements of both programs shall apply unless otherwise required or allowed by the applicable rule of this Section.
- (4) DISPUTES REGARDING WATER QUALITY CLASSIFICATION. For stormwater programs that apply based on water quality classification, any disputes regarding water quality classification shall be determined by the N.C. Division of Water Resources pursuant to 15A NCAC 02B .0101 and in accordance with G.S. 143-214.1.
- (5) ~~VESTED RIGHTS. Development projects~~ PRIOR AUTHORIZATIONS. A development project shall ~~be exempted from~~ not be required to comply with this Section or shall be allowed to follow an earlier version of the Rules of this Section available for no cost on the Division’s website at <http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-program> if ~~a vested right is demonstrated by~~ it is conducted pursuant to one of the following authorizations, provided that the authorization was obtained prior to the effective date of the applicable rule of this Section, and the authorization is valid, unexpired, unrevoked, and not otherwise terminated:
- (a) a ~~valid~~ building permit pursuant to G.S. 153A-357 or G.S. 160A-417;
- (b) a ~~valid~~ ~~site specific~~ “site specific development ~~plan~~ plan” as defined by G.S. 153A-344.1(b)(5) and G.S. 160A-385.1(b)(5); ~~or~~
- (c) a ~~phased~~ “phased development ~~plan~~ plan” ~~approved pursuant to~~ as defined by G.S. ~~153A-344.1(b)(5)~~ 153A-344.1(b)(3) or G.S. 160A-385.1 that shows:
- (i) for the initial or first phase of development, the type and intensity of uses for a specific parcel or parcels, including the boundaries of the project and a subdivision plan that has been approved pursuant to G.S. ~~153A-33~~ 153A-330 through G.S. ~~153A-235~~ 153A-335 or G.S. 160A-371 through G.S. ~~160A-376~~ 160A-376; and
- (ii) for any subsequent phase of development, ~~upon a finding by the Commission~~ sufficient detail ~~so~~ that demonstrates to the permitting authority that

1 implementation of the requirements of this Section to that phase of development
2 would require a material change in that phase of development as contemplated in
3 the phased development plan. Sufficient detail ~~[shall]~~ may include documentation
4 of financial expenditures and contractual obligations, a copy of ~~[a]~~ an approved
5 site-specific development ~~[plan approved prior to the effective date of the new~~
6 ~~rules,]~~ plan, and a narrative of how the new rules will require a material change
7 to the subsequent phase or phases of development; or

8 (d) a vested right to the development pursuant to common law.

9 (6) ANTI-DEGRADATION POLICY. ~~In accordance~~ Development projects that are subject to this
10 Section shall comply with the Antidegradation Policy set forth in 15A NCAC 02B ~~[.0201,]~~ .0201.
11 ~~additional stormwater control measures may be required on a case by case basis to maintain and~~
12 ~~protect existing and anticipated uses of surface waters.~~

13
14 History Note: Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2014-1;
15 Eff. January 1, 1988;
16 Amended Eff. September 1, ~~1995~~, 1995;
17 Readopted Eff. January 1, 2017.

1 15A NCAC 02H .1002 is readopted with changes as published in 30:16 NCR 1730-1803 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. Definitions set forth in 15A NCAC 02H .0150 and 40 CFR 122.2
6 and 122.26(b) (1 July [2003 Edition),] 2015 Edition) [including any subsequent editions,] are incorporated herein by
7 [reference.] reference, not including subsequent amendments and editions. These federal regulations [can] may be
8 accessed at no cost at <http://www.gpo.gov/fdsys/>. Other words and phrases used in this Section are defined as follows:

- 9 (1) "Adverse impact" means a detrimental effect upon water quality or best usages, including a violation
10 of water quality standards, caused by or contributed to by a discharge or loading of a pollutant or
11 pollutants.
- 12 (2) "Best usage" means those uses of waters specified for each classification as determined by the
13 Commission in accordance with the provisions of G.S. 143-214.1 and as set forth in 15A NCAC
14 02B .0101, 15A NCAC 02B .0200, and 15A NCAC 02B [-.0300, et seq.] .0300.
- 15 ~~(1)(3)~~ "Built-upon area" or "BUA" ~~means impervious surface and partially impervious surface to the extent~~
16 ~~that the partially impervious surface does not allow water to infiltrate through the surface and into~~
17 ~~the subsoil. "Built-upon area" does not include a slatted deck or the water area of a swimming pool.~~
18 ~~has the same meaning as in G.S. 143-214.7.~~
- 19 ~~(2)(4)~~ "CAMA Major Development Permits" means those permits or revised permits required by the
20 Coastal Resources Commission as set forth in 15A NCAC 07J Sections .0100 and .0200.
- 21 ~~(3)(5)~~ "Certificate of Stormwater Compliance" means the approval for activities that meet the requirements
22 for coverage under a stormwater general permit for development activities that are regulated by this
23 Section.
- 24 ~~(4)(6)~~ "Coastal Counties" ~~are~~ means any of the following counties: Beaufort, Bertie, Brunswick, Camden,
25 Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow,
26 Pamlico, Pasquotank, Pender, Perquimans, Tyrrell, and Washington.
- 27 (7) "Commission" means the North Carolina Environmental Management Commission.
- 28 (8) "Common plan of development" means a site where multiple separate and distinct development
29 activities may be taking place at different times on different schedules but governed by a single
30 development plan regardless of ownership of the parcels. Information that may be used to determine
31 a "common plan of development" include plats, blueprints, marketing plans, contracts, building
32 permits, public notices or hearings, zoning requests, and infrastructure development plans.
- 33 ~~(5)(9)~~ "Curb Outlet System" means curb and gutter [installed in a development that meets the low density
34 criteria set forth in Rule] .1003(d)(1) [-.1003(2)] of this Section [Section,] with breaks in the curb or
35 other outlets used to convey stormwater runoff to grassed swales or vegetated or natural areas and
36 designed in accordance with Rule .1008(g) of this Section. [conveyances.] conveyances or other
37 vegetated areas.

- (10) "Design volume" means the amount of stormwater runoff that an SCM or series of SCMs is designed to ~~[treat in accordance with the applicable minimum design criteria.] treat.~~
- (6)(11) "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. ~~has the same meaning as in G.S. 143-214.7.~~
- ~~[(43)](12)~~ "Director" means the Director of the Division of Energy, Mineral, and Land ~~[Resources unless otherwise assigned by the Secretary of the Department of Environmental Quality.] Resources.~~
- ~~[(14)]~~ "Discrete NRCS Curve Number Method" means a method for calculating the required treatment stormwater runoff volume whereby the model described in Urban Hydrology for Small Watersheds (NRCS Technical Report 55), available at no cost at: http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf), is run twice: first, to yield runoff volume from the built upon areas; and second, to yield runoff volume from the remainder of the project. The total required treatment volume shall be the sum of the two results.]
- ~~[(42)](13)~~ ["Diffuse"] "Dispersed flow" means uniform shallow flow that is conveyed to a vegetated filter strip as defined in Rule .1059 of this Section, another ~~[ground surface,] vegetated area,~~ or stormwater control measure. The purpose of ~~["diffuse"] "dispersed flow"~~ is to remove pollutants ~~[via] through~~ infiltration and settling, as well as to reduce erosion prior to stormwater reaching surface waters.
- ~~[(45)](14)~~ "Division" means the Division of Energy, Mineral, and Land ~~[Resources unless otherwise assigned by the Secretary of the Department of Environmental Quality.] Resources.~~
- ~~(7)(46)](15)~~ "Drainage Area or Watershed" means the entire area contributing surface runoff to a single point.
- ~~(19)(47)](16)~~ ~~"Sedimentation and Erosion"~~ "Erosion and Sedimentation Control Plan" means any plan, amended plan, or revision to an approved plan submitted to the Division of Energy, Mineral, and Land Resources or a delegated authority in accordance with G.S. 113A-57.
- (17) "Existing development" means those projects that are built or those projects that have established a vested right under North Carolina law as of the effective date of the state stormwater program or applicable local government ordinance to which the project is ~~[subject, based on at least one of the following criteria:] subject.~~
- ~~[(a)]~~ Substantial expenditure of resources (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project;
- ~~[(b)]~~ Having an outstanding valid building permit in compliance with G.S. 153A-344.1 or G.S. 160A-385.1; or
- ~~[(c)]~~ Having an approved site specific or phased development plan in compliance with G.S. 153A-344.1 or G.S. 160A-385.1.]

- ~~(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)~~(18) "General Permit" means a permit issued under G.S. 143-215.1(b)(3) and G.S. 143-215.1(b)(4) ~~G.S. 143-215.1(b)(4)~~ authorizing a category of similar activities or discharges.
- (19) "Geotextile fabric" means a permeable geosynthetic comprised solely of non-biodegradable textiles.
- ~~(10)~~(20) "Infiltration Systems" means stormwater control ~~systems~~ measures designed to allow runoff to pass or move (infiltrate/exfiltrate) ~~either infiltrate or exfiltrate~~ move into the soil. soil's pore space.
- (21) "Intermittent stream" has the same meaning as in 15A NCAC 02B .0233.
- (22) "Local government" has the same meaning as in 15A NCAC 02B .0202.
- (23) "Major modification" means a modification ~~change~~ of a state stormwater permit that is not a "minor modification" as that term is defined in this Rule.
- (24) "Minimum Design Criteria" or "MDC" means the requirements set forth in this Section for siting, site preparation, design and construction, and post-construction monitoring and evaluation necessary for the Department to issue stormwater permits that comply with State water quality standards adopted pursuant to G.S. 143-214.1.
- (25) "Minor modification" means a modification ~~change~~ of a state stormwater permit that does not increase the net built-upon area within the project or does not increase the overall size of the stormwater control measures that have been previously ~~approved~~ for the project.
- ~~(26)~~ "90th percentile storm" means the rainfall event with a precipitation depth greater than or equal to 90 percent of all 24 hour storms on an annual basis.
- ~~(27)~~ "95th percentile storm" means the rainfall event with a precipitation depth greater than or equal to 95 percent of all 24 hour storms on an annual basis.
- ~~(28)~~(26) "Non-erosive velocity" means the flow rate of water, usually measured in feet per second, that does not exceed the maximum permissible velocity for the condition and type of soil and groundcover over which the water is flowing. Erosion is likely to occur ~~occurs~~ when the maximum permissible velocity is exceeded. Guidance on non erosive velocity is available at no cost at http://www.bae.ncsu.edu/bae/workshops/dot/pdf/mod3_3atext.pdf.
- ~~(11)~~~~(29)~~(27) "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 used with individual permits.~~ permit in lieu of an application for an individual permit.
- ~~(30)~~(28) "NPDES" means National Pollutant Discharge Elimination System ~~System~~.
- ~~(12)~~~~(31)~~(29) "Off-site Stormwater Systems" means stormwater management systems that are located outside the boundaries of the specific project in question, but ~~desisettl~~igned 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.~~

(13)(32)(30) "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;~~ the maximum amount of rainfall during a 24 consecutive hour period expected, on average, to occur once a year. One-year, 24-hour storm depths are estimated by the National Oceanic and Atmospheric Administration (NOAA) Precipitation Frequency Data Server (PFDS), which is herein incorporated by reference, including subsequent amendments and editions, and [available] may be accessed at no cost at <http://hdsc.nws.noaa.gov/hdsc/pfds/>.

(14)(33)(31) "On-site Stormwater Systems" means the systems necessary to control stormwater within an individual development project and located within the project boundaries.

(34)(32) "Peak attenuation volume" means stormwater runoff in excess of the design volume that is conveyed to an SCM where it is not [necessarily] treated in accordance with the applicable [MDC] MDC, but [rather] is released by the SCM in a controlled manner to address potential downstream erosion and flooding impacts to meet federal, State, or local regulations beyond the requirements of this Section.

(35)(33) "Perennial waterbody" has the same meaning as in 15A NCAC 02B .0233.

(36)(34) "Perennial stream" has the same meaning as in 15A NCAC 02B .0233.

(15)(37)(35) "Permeable pavement" means paving material that absorbs water or allows water to infiltrate through the paving material. ~~Permeable pavement~~ "Permeable pavement" materials include porous concrete, permeable interlocking concrete pavers, concrete grid pavers, porous asphalt, and any other material with similar characteristics.

(38)(36) "Person" has the same meaning as in G.S. 143-212(4).

(37) "Primary SCM" means a wet pond, stormwater wetland, infiltration system, sand filter, bioretention cells, permeable pavement, green roof, rainwater harvesting, or an approved new stormwater technology that is designed, constructed and maintained in accordance with the MDC.

(39)(38) "Project" means the proposed development activity for which an applicant is seeking a stormwater permit from the state or other entity in accordance with this Section. The Project shall exclude any land adjacent to the area disturbed by the project that has been counted as pervious by any other development regulated under a federal, State, or local stormwater regulation. Owners and developers of large developments consisting of many linked projects [are encouraged to develop] may consider developing a master plan that illustrates how each project fits into the design of the large development.

(40)(39) "Public linear transportation project" means a project consisting of a road, bridge, sidewalk, greenway, or railway that is on a public thoroughfare plan or provides improved access for existing development and that is owned and maintained by a public entity.

(41)(40) "Required storm depth" means the minimum amount of rainfall that shall be used to calculate the required treatment volume or to evaluate whether a project has achieved runoff volume match.

1 ~~[(42)]~~ "Required treatment volume" means the minimum amount of stormwater runoff from a high density
2 ~~project that shall be treated in an SCM or a series of SCMs.~~

3 (16)(43)(41) "Redevelopment" means any land disturbing activity that does not result in a net increase
4 in built-upon area and that provides greater or equal stormwater control than the previous
5 development. Stormwater controls shall not be allowed where otherwise prohibited. has the same
6 meaning as in G.S. [443-214.7,] 143-214.7.

7 (17)(44)(42) ~~"Residential development activities"~~ "Residential development" has the same meaning as
8 in 15A NCAC 02B .0202.

9 (43) "Runoff treatment" means that the volume of stormwater runoff generated from all of the built-upon
10 area of a project at build-out during a storm of the required storm depth is treated in one or more
11 primary SCMs or a combination of Primary and Secondary SCMs that provides equal or better
12 treatment.

13 ~~[(45)](44)~~ "Runoff volume match" means that the annual runoff volume ~~[of runoff]~~ after development
14 ~~[does not exceed]~~ shall not be more than ten percent higher than the ~~[amount]~~ annual runoff volume
15 ~~[of runoff]~~ before development, ~~[for the design storm.]~~ except in areas subject to SA waters
16 requirements per Rule .1019 of this Section where runoff volume match means that the annual runoff
17 volume after development shall not be more than five percent higher than the annual runoff volume
18 before development.

19 ~~(18)(46)~~(45) "Seasonal High Water Table" or "SHWT" means the highest level ~~that groundwater, at~~
20 ~~atmospheric pressure, reaches~~ of the saturated zone in the soil ~~in most years.~~ during a year with
21 normal rainfall. The seasonal high water table is usually detected by the mottling of the soil that
22 results from mineral leaching. SHWT may be determined in the field through identification of
23 redoximorphic features in the soil profile, monitoring of the water table elevation, or modeling of
24 predicted groundwater elevations.

25 (46) "Secondary SCM" means an SCM that does not achieve the annual reduction of Total Suspended
26 Solids (TSS) of a "Primary SCM" but may be used in a treatment train with a primary SCM or other
27 Secondary SCMs to provide pre-treatment, hydraulic benefits, or a portion of the required TSS
28 removal.

29 ~~[(48)]~~ "Simple Method" means a method for calculating the required treatment volume using the formula
30 $V = 3630 * R_D * (0.05 + 0.9 * I_A) * A$. In this equation, V = the estimated runoff volume for the design
31 storm, R_D = design storm rainfall depth in inches, I_A = impervious fraction (impervious portion of
32 drainage area in acres/ drainage area in acres), and A = watershed area in acres.]

33 ~~(20)(49)~~(47) "Stormwater" is defined has the same meaning as in G.S.143-213(16a).

34 ~~(21)(50)~~(48) "Stormwater Collection System" means any conduit, pipe, channel, curb, or gutter for the
35 primary purpose of transporting (not treating) runoff. A stormwater collection system does not
36 include vegetated swales, swales stabilized with armoring, or alternative methods where natural
37 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)(4)~~ 1003 in this Section.

~~(51)~~(49) "Stormwater Control Measure" or ~~["SCM"]~~ "SCM," also known as "Best Management Practice" or "BMP," means a permanent structural device that is designed, constructed, and maintained to remove pollutants from stormwater runoff by promoting settling or ~~[filtration]~~ filtration, or ~~to~~ mimic the natural hydrologic cycle by promoting infiltration, evapo-transpiration, post-filtration discharge, reuse of stormwater, or a combination thereof.

~~(22)~~(52)~~(50)~~ ~~"10 Year Storm~~ "Ten-year storm intensity" means the maximum rate of rainfall of a duration equivalent to the time of concentration 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 that will produce the maximum peak rate of runoff, for the watershed of interest under average antecedent wetness conditions. " years. Ten-year storm intensities are estimated by the National Oceanic and Atmospheric Administration (NOAA) Precipitation Frequency Data Server (PFDS), which is herein incorporated by reference, including subsequent amendments and editions, and [available] may be accessed at no cost at <http://hdsc.nws.noaa.gov/hdsc/pfds/>.

~~(23)~~(53)~~(51)~~ ~~"Vegetative Buffer"~~ "Vegetated setback" means an area of natural or established vegetation directly adjacent to surface ~~waters~~ 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)~~(54)~~(52)~~ ~~"Vegetative conveyance"~~ "Vegetated 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.

~~(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 that 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.~~

~~(26)~~(55)~~(53)~~ ~~"Water Dependent Structures" means a structure for which that the use requires access or access, proximity to, or siting within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks, and or bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots, and boat storage areas are not shall not be considered water dependent structures. uses.~~

~~(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.~~

1 *History Note:* *Authority G.S. 143-213; 143-214.1; 143-214.7; 143-215.3(a)(1);*
2 *Eff. January 1, 1988;*
3 *Amended Eff. August 1, 2012 (see S.L. 2012-143, s.1(f)); July 3, 2012; December 1, 1995;*
4 *September 1, 1995;*
5 *Temporary Amendment Eff. March 28, 2014;*
6 *Amended Eff. January 1, ~~2015~~ 2015;*
7 *Readopted Eff. January 1, 2017.*

1 15A NCAC 02H .1003 is readopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1003 ~~STORMWATER MANAGEMENT: COVERAGE: APPLICATION: FEES~~**
4 **REQUIREMENTS THAT APPLY TO ALL [SUBJECT] PROJECTS**

5 ~~(a) The intent of the Commission is to achieve the water quality protection which low density development near~~
6 ~~sensitive waters provides. To that end, the Director, by applying the standards in this Section shall cause development~~
7 ~~to comply with the antidegradation requirements specified in 15A NCAC 2B .0201 by protecting surface waters and~~
8 ~~highly productive aquatic resources from the adverse impacts of uncontrolled high density development or the~~
9 ~~potential failure of stormwater control measures.~~

10 ~~(b) To ensure the protection of surface waters of the State in accordance with G.S. 143-214.7, a permit is required in~~
11 ~~accordance with the provisions of this Section for any development activities which require a CAMA major~~
12 ~~development permit or a Sedimentation/Erosion Control Plan and which meet any of the following criteria:~~

- 13 ~~(1) development activities located in the 20 coastal counties as defined in Rule .1002(4) of this Section;~~
14 ~~(2) development activities draining to Outstanding Resource Waters (ORW) as defined in 15A NCAC~~
15 ~~2B .0225; or~~
16 ~~(3) development activities within one mile of and draining to High Quality Waters (HQW) as defined~~
17 ~~in 15A NCAC 2B .0101(e)(5).~~

18 ~~Projects under a common plan of development shall be considered as a single project and shall require stormwater~~
19 ~~management in accordance with this Section. Local governments with delegated Sedimentation/Erosion Control~~
20 ~~Programs often implement more stringent standards in the form of lower thresholds for land area disturbed. In these~~
21 ~~situations, the requirements of this Rule apply only to those projects that exceed the state's minimum area of~~
22 ~~disturbance as outlined in G.S. 113A-57. Specific permitting options, including general permits for some activities,~~
23 ~~are outlined in Paragraph (d) of this Rule.~~

24 ~~(c) Development activity with a CAMA major development permit or a Sedimentation/Erosion Control Plan approved~~
25 ~~prior to January 1, 1988 are not required to meet the provisions of these Rules unless changes are made to the project~~
26 ~~which require modifications to these approvals after January 1, 1988.~~

27 ~~(d) Projects subject to the permitting requirements of this Section may be permitted under the following stormwater~~
28 ~~management options:~~

- 29 ~~(1) Low Density Projects: Projects permitted as low density projects must be designed to meet and~~
30 ~~maintain the applicable low density requirements specified in Rules .1005 through .1007 of this~~
31 ~~Section. The Division shall review project plans and assure that density levels meet the applicable~~
32 ~~low density requirements. The permit shall require recorded deed restrictions and protective~~
33 ~~covenants to ensure development activities maintain the development consistent with the plans and~~
34 ~~specifications approved by the Division.~~
35 ~~(2) High Density Projects: Projects permitted as high density projects must be designed to meet the~~
36 ~~applicable high density requirements specified in Rules .1005 through .1007 of this Section with~~
37 ~~stormwater control measures designed, operated and maintained in accordance with the provisions~~

1 of this Section. The permit shall require recorded deed restrictions and protective covenants to
2 ensure development activities maintain the development consistent with the plans and specifications
3 approved by the Division. Stormwater control measures and operation and maintenance plans
4 developed in accordance with Rule .1008 of this Section must be approved by the Division. In
5 addition, NPDES permits for stormwater point sources may be required according to the provisions
6 of 15A NCAC 2H .0126.

7 (3) ~~Other Projects:~~ Development may also be permitted on a case by case basis if the project:

8 (A) ~~controls runoff through an off site stormwater system meeting provisions of this Section;~~

9 (B) ~~is redevelopment which meets the requirements of this Section to the maximum extent~~
10 ~~practicable;~~

11 (C) ~~otherwise meets the provisions of this Section and has water dependent structures, public~~
12 ~~roads and public bridges which minimize built upon surfaces, divert stormwater away from~~
13 ~~surface waters as much as possible and employ other best management practices to~~
14 ~~minimize water quality impacts.~~

15 (4) ~~Director's Certification:~~ Projects may be approved on a case by case basis if the project is certified
16 by the Director that the site is situated such that water quality standards and uses are not threatened
17 and the developer demonstrates that:

18 (A) ~~the development plans and specifications indicate stormwater control measures which shall~~
19 ~~be installed in lieu of the requirements of this Rule; or~~

20 (B) ~~the development is located such a distance from surface waters that impacts from pollutants~~
21 ~~present in stormwater from the site shall be effectively mitigated.~~

22 (5) ~~General Permits:~~ Projects may apply for permit coverage under general permits for specific types
23 of activities. The Division shall develop general permits for these activities in accordance with Rule
24 .1013 of this Section. General Permit coverage shall be available to activities including, but not
25 limited to:

26 (A) ~~construction of bulkheads and boat ramps;~~

27 (B) ~~installation of sewer lines with no proposed built upon areas;~~

28 (C) ~~construction of an individual single family residence; and~~

29 (D) ~~other activities that, in the opinion of the Director, meet the criteria in Rule .1013 of this~~
30 ~~Section.~~

31 ~~Development designed to meet the requirements in Subparagraphs (d)(1) and (d)(3) of this Paragraph must~~
32 ~~demonstrate that no areas within the project site are of such high density that stormwater runoff threatens water quality.~~

33 (e) ~~Applications:~~ Any person with development activity meeting the criteria of Paragraph (b) of this Rule shall apply
34 for permit coverage through the Division. Previously issued Stormwater Certifications (issued in accordance with
35 stormwater management rules effective prior to September 1, 1995) revoked due to certification violations must apply
36 for permit coverage. Stormwater management permit applications, project plans, supporting information and
37 processing fees shall be submitted to the appropriate Division of Environmental Management regional office. A

processing fee, as described in Paragraph (f) of this Rule, must be submitted with each application. Processing fees submitted in the form of a check or money order shall be made payable to N.C. Department of Environment, Health, and Natural Resources. Applications which are incomplete or not accompanied by the processing fee may be returned.

Permit applications shall be signed as follows:

- (1) in the case of corporations, by a principal executive officer of at least the level of vice president, or his authorized representative;
- (2) in the case of a partnership, by a general partner and in the case of a limited partnership, by a general partner;
- (3) in the case of a sole proprietorship, by the proprietor;
- (4) in the case of a municipal, state or other public entity by either a principal executive officer, ranking official or other duly authorized employee.

The signature of the consulting engineer or other agent shall be accepted on the application only if accompanied by a letter of authorization.

(f) Permit Fees:

(1) For every application for a new or revised permit under this Section, a nonrefundable application processing fee in the amount stated in Subparagraph (f)(2) of this Paragraph shall be submitted at the time of application.

(A) Each permit application is incomplete until the application processing fee is received;

(B) No processing fee shall be charged for modifications of permits when initiated by the Director;

(C) A processing fee of forty dollars (\$40.00) shall be charged for name changes;

(D) No processing fee shall be required for name changes associated with the initial transfer of property from the developer to property owner or responsible party. Any subsequent changes in ownership shall be subject to the name change processing fee in Part (C) of this Paragraph.

(2) Schedule of Fees

Permit Application Processing Fee

	New Applications/ Modifications/ Rate Renewal	Timely Renewals Without Modifications
Low Density	\$225	N/A
High Density	385	225
Other	225	N/A

Director's Certification	350	N/A
General Permits	50	N/A

~~(g) Supporting Documents and Information. This Paragraph outlines those supporting documents and information that must be submitted with stormwater applications. Additional information may also be applicable or required. The applicant shall attempt to submit all necessary information to describe the site, development and stormwater management practices proposed. The following documents and information shall be submitted with stormwater applications:~~

- ~~(1) two sets of detailed plans and specifications for the project;~~
- ~~(2) plans and specifications must be dated and sealed as outlined in Rule .1008(j) of this Section and show the revision number and date;~~
- ~~(3) general location map showing orientation of the project with relation to at least two references (numbered roads, named streams/rivers, etc.) and showing the receiving water (a USGS map preferable);~~
- ~~(4) topographic map(s) of the project area showing original and proposed contours and drainage patterns;~~
- ~~(5) delineation of relevant boundaries including drainage areas, seasonal high water table, wetlands, property/project boundaries and drainage easements;~~
- ~~(6) existing and proposed built upon area including roads, parking areas, buildings, etc.;~~
- ~~(7) technical information showing all final numbers, calculations, assumptions, drawing and procedures associated with the stormwater management measures including but not limited to: built upon area, runoff coefficients, runoff volume, runoff depth, flow routing, inlet and outlet configuration (where applicable), other applicable information as specified;~~
- ~~(8) operation and maintenance plan signed by responsible party;~~
- ~~(9) recorded deed restriction and protective covenants. As an alternative proposed deed restriction and protective covenants and a signed agreement to provide final recorded articles shall be accepted when final documents are not available at the time of submittal.~~

~~(h) Permit Issuance and Compliance: Stormwater management permits shall be issued in a manner consistent with the following:~~

- ~~(1) Stormwater management permits issued for low density projects shall not require permit renewal.~~
- ~~(2) Stormwater management permits issued for projects that require the construction of engineered stormwater control measures shall be issued for a period of time not to exceed 10 years. Applications for permit renewals shall be submitted 180 days prior to the expiration of a permit and must be accompanied by the processing fee described in Paragraph (f) of this Rule.~~
- ~~(3) Stormwater management permits shall be issued to the developer or owner and shall cover the entire master plan of the project ("stormwater master plan permit"). The master plan permit shall include~~

1 specifications for stormwater management measures associated with each individual lot or property
2 within the project.

- 3 (4) ~~Any individual or entity found to be in noncompliance with the provisions of a stormwater~~
4 ~~management permit or the requirements of this Section is subject to enforcement procedures as set~~
5 ~~forth in G.S. 143, Article 21.~~

6 The following requirements shall apply to projects subject to any North Carolina stormwater program set forth in Rule
7 .1001 of this Section.

- 8 (1) CALCULATION OF PROJECT DENSITY. The following requirements shall apply to the
9 calculation of project density:

10 (a) Project density shall be calculated as the total built-upon area divided by the total project
11 area;

12 (b) A project with existing development may use the calculation method in Sub-Item (1)(a) or
13 shall have the option of calculating project density as the difference of total built-upon area
14 minus existing built-upon area divided by the difference of total project area minus existing
15 built-upon area;

16 (c) Total project area shall exclude the following:

17 (i) areas below the Normal High Water [(NHW) line or Mean High Water (MHW)
18 line;] Line (NHWL); and

19 (ii) areas defined as "coastal wetlands" pursuant to 15A NCAC 07H .0205, herein
20 incorporated by reference, including any subsequent amendments and editions,
21 and [available] may be accessed at no cost at
22 <http://reports.oah.state.nc.us/ncac.asp> as measured landward from the Normal
23 High Water (NHW) line; and

24 (d) On a case-by-case basis as determined by the Division during application review, projects
25 may be considered to have both high and low density areas based on one or more of the
26 following criteria:

27 (i) natural drainage area boundaries;

28 (ii) variations in land use throughout the project; and

29 (iii) construction phasing.

- 30 (2) DESIGN REQUIREMENTS FOR LOW DENSITY PROJECTS. Low density projects shall meet
31 the following minimum design criteria:

32 (a) DENSITY THRESHOLDS. Low density projects shall not exceed the low density
33 development thresholds set forth in the stormwater programs to which they are subject
34 pursuant to Rules .1017, .1019, and .1021 of this Section. For projects subject to the
35 requirements for Non-Coastal High Quality Waters and Outstanding Resource Waters,
36 dwelling unit per acre may be used instead of density to establish low density status for
37 single-family detached residential development as set forth in Rule .1021 in this Section;

- (b) ~~[DIFFUSE]~~ **DISPERSED** FLOW. Projects shall be designed to maximize ~~[diffuse]~~ **dispersed** flow through vegetated areas and minimize channelization of flow;
- (c) **VEGETATED CONVEYANCES**. Stormwater that cannot be released as ~~[diffuse]~~ **dispersed** flow shall be transported by vegetated conveyances. A minimal amount of non-vegetated conveyances for erosion protection or piping for driveways or culverts under a road shall be allowed **by the permitting authority** when it cannot be avoided. Vegetated conveyances shall meet the following requirements:
- (i) Side slopes shall be no steeper than 3:1 (horizontal to vertical) unless it is demonstrated to the **[Division] permitting authority** that the soils and vegetation will remain stable in perpetuity based on engineering calculations and on-site soil investigation; **and**
 - (ii) The conveyance shall be designed so that it does not erode during the peak flow from the 10-year storm as demonstrated by engineering ~~[calculations; and]~~ **calculations.**
 - ~~[(iii) — An operation and maintenance (O&M) plan shall be provided for the vegetated conveyances. The O&M plan shall indicate the maintenance procedures that shall be taken to return the vegetated conveyance to design specification if a failure occurs. O&M plans shall be signed by the owner and notarized. O&M plans shall be referenced on the project plat. An O&M plan shall not be required for vegetated conveyances that shall be within publicly maintained rights of way.]~~
- (d) **CURB OUTLET** ~~[SWALES;]~~ **SYSTEMS**. Low density projects may use curb and gutter with outlets to convey stormwater to grassed swales or vegetated areas. Requirements for these curb outlet systems ~~[are]~~ shall **be** as follows:
- (i) The curb outlets shall be designed such that the swale or vegetated area can carry the peak flow from the 10-year storm at a non-erosive velocity;
 - (ii) The longitudinal slope of the swale or vegetated area shall not exceed five ~~[percent, where practicable. Where]~~ **percent, except where** not practical due to physical ~~[constraints;]~~ **constraints. In these cases,** devices to slow the rate of runoff and encourage infiltration to reduce pollutant delivery shall be provided;
 - (iii) The swale's cross-section shall be trapezoidal with a minimum bottom width of two feet;
 - (iv) The side slopes of the swale or vegetated area shall be no steeper than 3:1 (horizontal to vertical);
 - (v) The minimum length of the swale or vegetated area shall be 100 feet; and
 - (vi) Low density projects may use treatment swales designed pursuant to Rule .1061 of this Section in lieu of the requirements specified in Part (i) through (v).

(3) DESIGN REQUIREMENTS FOR HIGH DENSITY PROJECTS. High density projects are projects that do not conform to Item (2) of this Rule. High density projects shall meet the following minimum design criteria:

(a) TREATMENT REQUIREMENTS. ~~The stormwater from the project shall be treated in one or more primary Stormwater Control Measures (SCMs).~~ SCMs shall be designed, constructed, and maintained so that the project achieves either ~~runoff treatment~~ “runoff treatment” or ~~runoff volume match.~~ “runoff volume match” as those terms are defined in Rule .1002 of this Section.

~~(i) Runoff treatment shall be achieved when the all of the stormwater runoff from all surfaces on the project at build out is treated in a Primary SCM. Primary SCMs shall include: wet ponds, stormwater wetlands, infiltration systems, sand filters, bioretention cells, permeable pavement, green roofs, rainwater harvesting, and approved new stormwater technologies.~~

~~(ii) Runoff volume match shall be achieved when stormwater from the project at the ultimate built out potential is controlled such that post development runoff volume does not exceed pre development runoff volume.~~

(b) OFF-SITE STORMWATER. Stormwater runoff from off-site areas and existing development ~~that pre-dates the effective dates of these rules is~~ shall not be required to be treated in the SCM. Runoff from off-site areas or existing development that is not bypassed shall be included in the sizing of on-site SCMs at its full built-out potential.

(c) OFF-SITE SCM. A project that controls runoff through an off-site SCM shall be allowed on a case-by-case basis as determined by the ~~Division~~ permitting authority if the off-site SCM meets the provisions of Rules .1050 through .1061 of this Section.

(d) ~~REPLACING~~ EXPANSION OR REPLACEMENT ~~(AND EXPANSION)~~ OF EXISTING ~~DEVELOPMENT WITH NEW~~ DEVELOPMENT. ~~Expansions to existing development shall be subject to this Section. Where there is a net increase of built upon area,~~ When new built-upon area is added to existing development or existing development is replaced with new built-upon area, only the area of net increase shall be subject to this Section. ~~Where existing development is being replaced with new built upon area, and there is a net increase of built upon area, only the area of net increase shall be subject to this Section. When existing built upon area is proposed to be replaced, the requirements shall be as follows:~~

~~(i) Where the existing footprint is being replaced with an equivalent amount of built upon area, greater or equal stormwater treatment shall be provided.~~

~~(ii) Where there is a net increase of built upon area, stormwater runoff from the net increase shall be treated in an SCM.~~

~~(e) CALCULATION METHODS.~~ The required stormwater treatment volume to be controlled

1 shall be calculated using either the Simple Method or the difference between pre- and post-
2 development runoff volume computed using the Discrete NRCS Curve Number Method.
3 The required storm depth is specified as set forth in the stormwater program to which the
4 project is subject.]

5 ~~[(f)](e)~~ MDC FOR SCMS. SCMs shall meet the relevant MDC set forth in Rules .1050 through
6 .1062 of this ~~Section~~. Section except in accordance with Item (6) of this Rule.

7 ~~[(g)]~~ FLEXIBILITY IN THE MDC FOR SCMs. Applicants may propose designs for SCMs that
8 do not meet all of the MDC. The process for permitting SCMs that do not meet all of the
9 MDC shall be as follows:

10 (i) ~~When the Division is the permitting authority, these designs shall be submitted to~~
11 ~~the Division during the standard permitting process pursuant to Rule .1042 of this~~
12 ~~Section.~~

13 (ii) ~~Proposed designs shall be considered by the Division or local government~~
14 ~~permitting authority on a project by project basis;~~

15 (iii) ~~The applicant shall provide technical justification based on engineering~~
16 ~~calculations and the results of published research studies, showing that the~~
17 ~~proposed design is equally or more protective of water quality than the MDC and~~
18 ~~that it shall function in perpetuity; and~~

19 (iv) ~~Proposed designs shall be approved if the Division or local government permitting~~
20 ~~authority determines that the information provided by the applicant satisfies the~~
21 ~~requirements of Sub items (ii) and (iii) of this Item.~~

22 (4) VEGETATED SETBACKS. Vegetated setbacks shall be required adjacent to waters as specified in
23 the stormwater rules to which the project is subject pursuant to this Section, in addition to the
24 following requirements applicable to all vegetated setbacks:

25 (a) The width of a vegetated setback shall be measured horizontally from the normal pool
26 elevation of impounded structures, from the top of bank of each side of streams or rivers,
27 and from the mean high waterline of tidal waters, perpendicular to the shoreline;

28 (b) Vegetated setbacks may be cleared or graded, but shall be replanted and maintained in grass
29 or other vegetation;

30 (c) Built-upon area that meets the requirements of G.S. 143-214.7(b2)(2) shall be allowed
31 within the vegetated setback.

32 ~~[(e)](d)~~ Built-upon area that does not meet the requirements of G.S. 143-214.7(b2)(2) shall be
33 allowed within a vegetated setback ~~[shall be allowed]~~ when it is not practical to locate the
34 built-upon area elsewhere, the built-upon area within the vegetated setback is minimized,
35 and channelizing runoff from the built-upon area is avoided. Built-upon area within the
36 vegetated setback shall be limited to:

37 (i) Publicly-funded linear projects such as roads, greenways, and sidewalks;

- (ii) Water Dependent Structures; and
- (iii) Minimal footprint uses such as poles, signs, utility appurtenances, and security lights.
- ~~(d)~~(e) Stormwater that has not been treated in an SCM shall not be discharged through a vegetated setback; instead it shall be released at the edge of the vegetated setback and allowed to flow through the setback ~~in a diffuse manner.~~ as dispersed flow.
- ~~(e)~~(f) Artificial streambank and shoreline stabilization shall not be subject to the requirements of this Item.
- ~~(6)~~(5) STORMWATER OUTLETS. Stormwater outlets shall be designed so that they do not cause erosion ~~immediately~~ downslope of the discharge point during the peak flow from the 10-year storm event as shown by engineering calculations.
- (6) VARIATIONS FROM THIS SECTION. The permitting authority shall have the option to approve projects that do not comply with all of the provisions of this Section on a case-by-case basis as follows:
- (a) If the variation pertains to an SCM design that does not meet all of the MDC, then the applicant shall provide technical justification based on engineering calculations and the results of research studies showing that the proposed design ~~is equally or more protective of water quality~~ provides equal or better stormwater control and equal or better protection of waters of the State than the requirements of this Section and that it shall function in perpetuity. The ~~Division~~ permitting authority shall have the option to require compliance with the MDC in the event that the alternative SCM design fails;
- (b) If the variation pertains to other aspects of the project, then the applicant shall demonstrate that the project provides equal or better stormwater control and equal or better protection of waters of the State than the requirements of this Section; and
- (c) Variations from this Section ~~are~~ shall not be allowed if the project is being permitted under the fast-track process.
- (7) DEED RESTRICTIONS AND PROTECTIVE COVENANTS. The permittee shall record deed restrictions and protective covenants ~~prior to the issuance of a certificate of occupancy~~ to ensure ~~development activities maintain the development~~ that projects will be maintained in perpetuity consistent with the plans and specifications approved by the ~~Division~~ permitting authority. For projects owned by public entities, the permittee shall have the option to incorporate specific restrictions and conditions into a facility management plan or another instrument in lieu of deed restrictions and protective covenants.
- (8) COMPLIANCE WITH OTHER REGULATORY PROGRAMS. Project designs shall comply with all other applicable requirements pursuant to G.S. 143-214.1, 143-214.5, 143-214.7, and 143-215.3(a)(1).

1 *History Note:* *Authority G.S. 143-214.1; 143-214.7; 143-215.1(d); 143-215.3(a)(1); S.L. 2008-198;*
2 *Eff. January 1, 1988;*
3 *Amended Eff. December 1, 1995; September 1, ~~1995~~ 1995;*
4 *Readopted Eff. January 1, 2017.*
5

1 15A NCAC 02H .1016 is readopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1016 DEVELOPMENT IN URBANIZING AREAS AREAS: APPLICABILITY AND**
4 **DELINEATION**

5 (a) Development in Unincorporated Areas of Counties.

6 (1) Development that cumulatively disturbs one acre or more of ~~land~~ land, including development that
7 disturbs less than one acre of land that is part of a larger common plan of development or sale, that
8 is located in the unincorporated area of a county shall comply with the standards set forth in Rule
9 ~~.1018-.1017~~ of this Section beginning 1 July 2007 if the development is located ~~in~~ in any of the
10 following:

11 (A) ~~An~~ an area that is designated as an urbanized area under the most recent federal decennial
12 census.

13 (B) ~~The~~ the unincorporated area of a county outside of a municipality designated as an
14 urbanized area under the most recent federal decennial census which is herein incorporated
15 by reference, including subsequent amendments and editions, and may be accessed at no
16 cost at: <https://www.census.gov/programs-surveys/decennial-census/data.html> that
17 extends:

- 18 (i) One mile beyond the corporate limits of a municipality with a population of less
19 than 10,000 ~~individuals~~; individuals;
- 20 (ii) Two miles beyond the corporate limits of a municipality with a population of
21 10,000 or more individuals but less than 25,000 ~~individuals~~; individuals; or
- 22 (iii) Three miles beyond the corporate limits of a municipality with a population of
23 25,000 or more individuals.

24 (C) ~~An~~ a area delineated pursuant to ~~Item Subparagraph (2)~~ (3) of this Paragraph.

25 (D) ~~A~~ a county that contains an area that is designated as an urbanized area under the most
26 recent federal decennial census in which the unduplicated sum ~~of~~ of the following equal
27 or exceed 75 percent of the total geographic area of the county:

- 28 (i) the area that is designated as an urbanized area under the most recent federal
29 decennial census;
- 30 (ii) the area described in Subparagraph (1)(B) of this Paragraph;
- 31 (iii) the area delineated pursuant to Item (2) of this Paragraph;
- 32 (iv) the jurisdiction of a regulated entity designated pursuant to ~~Paragraph (e) of this~~
33 Rule; Paragraph (a) of Rule .0151 of this Subchapter;
- 34 (v) the area that is regulated by a ~~Phase II National Pollutant Discharge Elimination~~
35 System (NPDES) NPDES MS4 permit for stormwater management required
36 pursuant to 15A NCAC 02H .0151(b); and

(vi) areas in the county that are subject to any of the stormwater management programs administered by the ~~Division equal or exceed 75 percent of the total geographic area of the county; [Division;]~~ Division; or

(E) ~~Subject to Subparagraph (4) of this Paragraph, a~~ A county that contains an area that is designated as an urbanized area under the 1990 or 2000 federal decennial census and that has an actual population growth rate that exceeded the State population growth rate for the period 1995 through ~~2004, 2004~~, unless that actual population growth rate occurred in an area within the county that consists of less than five percent of the total land area of the county.

(2) For purposes of this ~~subdivision, Paragraph,~~ the stormwater programs administered by the Division ~~are; shall be as follows:~~

- (i) Water Supply Watershed I (WS-I) – 15A NCAC 02B .0212;
- (ii) Water Supply Watershed II (WS-II) – 15A NCAC 02B .0214;
- (iii) Water Supply Watershed III (WS-III) – 15A NCAC 02B .0215;
- (iv) Water Supply Watershed IV (WS-IV) – 15A NCAC 02B .0216;
- (v) High Quality Waters (HQW) in Non-Coastal Counties – 15A NCAC 02H ~~.1006;~~ .1021;
- (vi) Outstanding Resource Waters (ORW) in Non-Coastal Counties – 15A NCAC 02H ~~.1007;~~ .1021;
- (vii) ~~The Coastal Counties Stormwater Program~~ – 15A NCAC 02H ~~.1005;~~ .1019;
- (viii) ~~The Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy~~ – 15A NCAC 02B .0235;
- (ix) ~~The Tar-Pamlico River Basin Nutrient Sensitive (NSW) Management Strategy~~ – 15A NCAC 02B .0258;
- (x) ~~The Randleman Lake Water Supply Watershed Nutrient Management Strategy~~ – 15A NCAC 02B .0251; and
- (xi) Other Environmental Management Commission Nutrient Sensitive Waters (NSW) Classifications – 15A NCAC 02B .0223.

~~(2)(3)~~ Delineation Process. The Commission shall delineate regulated coverage areas as follows:

- (A) Schedule: The Commission shall implement the delineation process in accordance with the schedule for review and revision of basinwide water quality management plans as provided in G.S. 143-215.8B(c).
- (B) Potential candidate coverage areas. A potential candidate coverage area ~~is~~ shall be the unincorporated area of a county that is outside a municipality designated as a regulated entity pursuant to ~~Items (2) and (3) of Paragraph (c)~~ Rule .0151(a)(2) and (3) of this Subchapter ~~that;~~ that extends:

- (i) ~~Extends~~ [extends] one mile beyond the corporate limits of a municipality with a population of less than 10,000 individuals;
- (ii) ~~Extends~~ [extends] two miles beyond the corporate limits of a municipality with a population of 10,000 or more individuals but less than 25,000 individuals; ~~and or~~
- (iii) ~~Extends~~ [extends] three miles beyond the corporate limits of a municipality with a population of 25,000 or more individuals.
- (C) Identification of candidate coverage areas. The Commission shall identify an area within a potential candidate coverage area described in ~~Subparagraph (2)(B)~~ Part (3)(B) of this ~~Paragraph~~ Subparagraph as a candidate coverage area if the discharge of stormwater within or from the unincorporated area has the potential to ~~adversely have an adverse impact on~~ adversely impact water quality. ~~An adverse impact on water quality includes any activity that violates water quality standards, including, but not limited to, any activity that impairs designated uses or that has a significant biological or habitat impact.~~
- (D) Notice and comment on candidacy. The Commission shall notify each public entity that is located in whole or in part in a candidate coverage area. After notification of each public entity, the Commission shall publish a map of the unincorporated areas within the river basin that have been identified as ~~candidates for delineation as regulated candidate~~ coverage areas. The Commission shall accept public comment on the proposed delineation of a candidate coverage area ~~as a regulated coverage area~~ for a period of not less than 30 days.
- (E) Delineation of regulated coverage areas. After review of public comment, the Commission shall delineate regulated coverage areas. The Commission shall delineate a candidate coverage area as a regulated coverage area only if the Commission determines that the discharge of stormwater within or from the candidate coverage area either:
- (i) ~~Adversely impacts~~ has an adverse impact on ~~water quality; quality; or~~
- (ii) ~~Results~~ results in a significant contribution of pollutants to sensitive receiving waters, taking into account the effectiveness of other applicable water quality protection programs. To determine the effectiveness of other applicable water quality protection programs, the Commission shall consider the water quality of the receiving waters and whether the waters support the ~~uses set out in Paragraphs (c), (d), and (e) of 15A NCAC 02B .0101 (Procedures for Assignment of Water Quality Standards — General Procedures) and the specific classification of the waters set out in 15A NCAC 02B .0300, et seq. (Assignment of Stream Classifications).~~ best usages.
- (F) Notice of delineation. The Commission shall provide written notice to each public entity that is located in whole or in part in a candidate coverage area of its delineation determination. The notice shall state the basis for the determination.

(3)(4) Except as provided in this ~~Item (3) of this Paragraph Subparagraph~~ and ~~Paragraph (d) of this Rule, Rule .1018 of this Section~~, the Commission shall administer and enforce the standards for development in the regulated coverage areas. To the extent authorized by law, where the development is located in a municipal planning jurisdiction, the municipality shall administer and enforce the standards. A public entity may request that the Commission delegate administration and enforcement of the stormwater management program to the public entity as provided in ~~Paragraph (d) of this Rule, Rule .1018 of this Section~~.

~~(4) A county that contains an area that is designated as an urbanized area under the 1990 or 2000 federal decennial census and that has an actual population growth rate that exceeded the State population growth rate for the period 1995 through 2004 is not a county under Part (1)(E) of this Paragraph and is not a county that is subject under this section to the requirements for development in the unincorporated areas of the county when that actual population growth rate occurred in an area within the county that consists of less than five percent of the total land area of the county.~~

(b) Development in ~~Non Phase II~~ Incorporated Areas in Certain Counties. Development that cumulatively disturbs one acre or more of ~~land land, including development that disturbs less than one acre of land that is part of a larger common plan of development or sale, that is~~ located in the incorporated areas of a county described in ~~Subparagraphs (2)(D) and (E) of Paragraph (a), Parts (a)(1)(D) and (E) of this Rule~~ that are not designated as an urbanized area under the most recent federal decennial ~~census, census~~ shall comply with the standards set forth in ~~Rule .4018 .1017~~ of this Section beginning 1 July 2007. The Commission shall administer and enforce the standards for development unless the public entity requests that the Commission delegate administration and enforcement of the stormwater management program to the public entity as provided in ~~Paragraph (d) of this Rule, Rule .1018 of this Section~~.

~~(c) Designation of Regulated Entities. A public entity that owns or operates a municipal separate storm sewer system (MS4) may be designated as a regulated entity through federal designation, through a State designation process, or under a total maximum daily load (TMDL) implementation plan as provided in this section.~~

~~(1) Federal designation. A public entity that owns or operates a municipal separate storm sewer system (MS4) may be designated as a regulated entity pursuant to 40 Code of Federal Regulations § 122.32 (1 July 2003 Edition).~~

~~(2) State designation process. The Commission shall designate a public entity that owns or operates a municipal separate storm sewer system (MS4) as a regulated entity as follows:~~

~~(A) Designation schedule. The Commission shall implement the designation process in accordance with the schedule for review and revision of basinwide water quality management plans as provided in G.S. 143-215.8B(c).~~

~~(B) Identification of candidate regulated entities. The Commission shall identify a public entity as a candidate for designation as a regulated entity if the municipal separate storm sewer system (MS4) either:~~

~~(i) Discharges stormwater that has the potential to adversely impact water quality. An adverse impact on water quality includes any activity that causes or~~

- 1 contributes to a violation of water quality standards, including, but not limited to,
2 any activity that impairs designated uses or that has a significant biological or
3 habitat impact.
- 4 (ii) ~~Serves a public entity that has not been designated pursuant to Item (1) of this~~
5 ~~Paragraph and that has either a population of more than 10,000 or more than 4,000~~
6 ~~housing units and either a population density of 1,000 people per square mile or~~
7 ~~more or more than 400 housing units per square mile.~~
- 8 (C) ~~Notice and comment on candidacy. The Commission shall notify each public entity~~
9 ~~identified as a candidate for designation as a regulated entity. After notification of each~~
10 ~~public entity, the Commission shall publish a list of all public entities within a river basin~~
11 ~~that have been identified as candidates for designation. The Commission shall accept~~
12 ~~public comment on the proposed designation of a public entity as a regulated entity for a~~
13 ~~period of not less than 30 days.~~
- 14 (D) ~~Designation of regulated entities. After review of the public comment, the Commission~~
15 ~~shall make a determination on designation for each of the candidate public entities. The~~
16 ~~Commission shall designate a candidate public entity that owns or operates a municipal~~
17 ~~separate storm sewer system (MS4) as a regulated public entity only if the Commission~~
18 ~~determines either that:~~
- 19 (i) ~~The public entity has an actual population growth rate that exceeds 1.3 times the~~
20 ~~State population growth rate for the previous 10 years.~~
- 21 (ii) ~~The public entity has a projected population growth rate that exceeds 1.3 times~~
22 ~~the projected State population growth rate for the next 10 years.~~
- 23 (iii) ~~The public entity has an actual population increase that exceeds 15 percent of its~~
24 ~~previous population for the previous two years.~~
- 25 (iv) ~~The municipal separate storm sewer system (MS4) discharges stormwater that~~
26 ~~adversely impacts water quality.~~
- 27 (v) ~~The municipal separate storm sewer system (MS4) discharges stormwater that~~
28 ~~results in a significant contribution of pollutants to receiving waters, taking into~~
29 ~~account the effectiveness of other applicable water quality protection programs.~~
30 ~~To determine the effectiveness of other applicable water quality protection~~
31 ~~programs, the Commission shall consider the water quality of the receiving waters~~
32 ~~and whether the waters support the uses set out in Paragraphs (c), (d), and (e) of~~
33 ~~15A NCAC 02B .0101 (Procedures for Assignment of Water Quality Standards—~~
34 ~~General Procedures) and the specific classification of the waters set out in 15A~~
35 ~~NCAC 02B .0300, et seq. (Assignment of Stream Classifications).~~
- 36 (E) ~~Notice of designation. The Commission shall provide written notice to each public entity~~
37 ~~of its designation determination. For a public entity designated as a regulated entity, the~~

1 notice shall state the basis for the designation and the date on which an application for a
2 Phase II National Pollutant Discharge Elimination System (NPDES) permit for stormwater
3 management must be submitted to the Commission.

4 (F) ~~Application schedule.~~ A public entity that has been designated as a regulated entity
5 pursuant to this subdivision must submit its application for a Phase II National Pollutant
6 Discharge Elimination System (NPDES) permit for stormwater management within 18
7 months of the date of notification.

8 (3) ~~Designation under a total maximum daily load (TMDL) implementation plan.~~ The Commission
9 shall designate an owner or operator of a small municipal separate storm sewer system (MS4) as a
10 regulated entity if the municipal separate storm sewer system (MS4) is specifically listed by name
11 as a source of pollutants for urban stormwater in a total maximum daily load (TMDL)
12 implementation plan developed in accordance with subsections (d) and (e) of 33 U.S.C. § 1313. The
13 Commission shall provide written notice to each public entity of its designation determination. For
14 a public entity designated as a regulated entity, the notice shall state the basis for the designation
15 and the date on which an application for a Phase II National Pollutant Discharge Elimination System
16 (NPDES) permit for stormwater management must be submitted to the Commission. A public entity
17 that has been designated as a regulated entity pursuant to this subdivision must submit its application
18 for a Phase II National Pollutant Discharge Elimination System (NPDES) permit for stormwater
19 management within 18 months of the date of notification.

20 (d) ~~Delegation.~~ A public entity that does not administer a Phase II National Pollutant Discharge Elimination System
21 (NPDES) permit for stormwater management throughout the entirety of its planning jurisdiction and whose planning
22 jurisdiction includes a regulated coverage area under Paragraphs (a) and (b) of this Rule may submit a stormwater
23 management program for its regulated coverage area or a portion of its regulated coverage area to the Commission for
24 approval pursuant to G.S. 143-214.7(c). An ordinance or regulation adopted by a public entity shall at least meet and
25 may exceed the minimum requirements of Rule .1018 of this Section. Two or more public entities are authorized to
26 establish a joint program and to enter into any agreements that are necessary for the proper administration and
27 enforcement of the program. The resolution, memorandum of agreement, or other document that establishes any joint
28 program must be duly recorded in the minutes of the governing body of each public entity participating in the program,
29 and a certified copy of each resolution must be filed with the Commission. The Commission shall review each
30 proposed program submitted to it to determine whether the submission is complete. Within 90 days after the receipt
31 of a complete submission, the Commission shall notify the public entity submitting the program that it has been
32 approved, approved with modifications, or disapproved. The Commission shall only approve a program upon
33 determining that its standards equal or exceed those of Rule .1018 of this Section. If the Commission determines that
34 any public entity is failing to administer or enforce an approved stormwater management program, it shall notify the
35 public entity in writing and shall specify the deficiencies of administration and enforcement. If the public entity has
36 not taken corrective action within 30 days of receipt of notification from the Commission, the Commission shall

1 ~~assume administration and enforcement of the program until such time as the public entity indicates its willingness~~
2 ~~and ability to resume administration and enforcement of the program.~~

3
4 *History Note:* Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2006-246; S.L. 2011-220;
5 *Eff. July 3, 2012;*
6 *Amended Eff. July 1, ~~2013~~. 2013;*
7 *Readopted Eff. January 1, 2017.*

1 15A NCAC 02H .1017 is readopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1017 POST-CONSTRUCTION PRACTICES NPDES MS4 AND URBANIZING**
4 **AREAS: POST-CONSTRUCTION REQUIREMENTS**

5 The purpose of this Rule is to minimize the impact of stormwater runoff from new development on the water quality
6 of surface waters and to protect their ~~designated~~ best usages.

7 ~~(a) Requirements for Post Construction Practices.~~

8 (1) IMPLEMENTING AUTHORITY. The requirements of this Rule shall be implemented by
9 Permittees, permittees, delegated programs, and regulated entities ~~must require stormwater controls~~
10 for a project that disturbs one acre or more of land, including a project that disturbs less than one
11 acre of land that is part of a larger common plan of development or sale. Whether an activity or
12 project that disturbs less than one acre of land is part of a larger common plan of development shall
13 be determined in a manner consistent with the memorandum referenced as "Guidance Interpreting
14 Phase 2 Stormwater Requirements" from the Director of the DWQ of the DENR to Interested Parties
15 dated 24 July 2006, in accordance with Rule .0151 of this Subchapter and Rule .1016 of this Section.
16 The stormwater controls shall be appropriate to the project's level of density as follows:

17 (A) ~~Low Density Option. A project that is located within any of the coastal counties is a low~~
18 ~~density project if it meets the low density requirements of Rule .1005 of this Section. A~~
19 ~~project that is not located within any of the coastal counties is a low density project if it~~
20 ~~contains no more than 24 percent built upon area or no more than two dwelling units per~~
21 ~~acre. Low density projects must use vegetated conveyances to the maximum extent~~
22 ~~practicable to transport stormwater runoff from the project. On site stormwater treatment~~
23 ~~devices such as infiltration areas, bioretention areas, and level spreaders may also be used~~
24 ~~as added controls for stormwater runoff. A project with an overall density at or below the~~
25 ~~low density thresholds, but containing areas with a density greater than the overall project~~
26 ~~density, may be considered low density as long as the project meets or exceeds the~~
27 ~~requirements of this Subparagraph (1)(A) and locates the higher density development in~~
28 ~~upland areas and away from surface waters and drainageways to the maximum extent~~
29 ~~practicable.~~

30 (B) ~~High Density Option. A project that is located within any of the coastal counties is a high~~
31 ~~density project if it meets the high density requirements of Rule .1005 of this Section. A~~
32 ~~project that is not located within any of the coastal counties is a high density project if it~~
33 ~~contains more than 24 percent built upon area or more than two dwelling units per acre.~~
34 ~~High density projects must use structural stormwater management systems that will control~~
35 ~~and treat runoff from the first one inch of rain. The structural stormwater management~~
36 ~~system must also meet the following design standards:~~

- ~~(i) — Draw down the treatment volume no faster than 48 hours, but no slower than 120 hours.~~
- ~~(ii) — Discharge the storage volume at a rate equal to or less than the predevelopment discharge rate for the one year, 24 hour storm.~~
- ~~(iii) — Remove an 85 percent average annual amount of Total Suspended Solids.~~
- ~~(iv) — Meet the General Engineering Design Criteria set out in Rule .1008(e) of this Section.~~
- ~~(v) — Wet detention ponds designed in accordance with the requirements of Item (6) of this Paragraph may be used for projects draining to Class SA waters.~~
- ~~(2) — Permittees, delegated programs, and regulated entities must require built-upon areas to be located at least 30 feet landward of all perennial and intermittent surface waters. For purposes of Paragraph (a), a surface water shall be present if the feature is shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). Relief from this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 02B .0233(3)(a). In addition, an exception to this requirement may be pursued in accordance with Paragraph (c) of this Rule.~~
- ~~(3) — Permittees, delegated programs, and regulated entities must implement or require a fecal coliform reduction program that controls, to the maximum extent practicable, the sources of fecal coliform. At a minimum, the program shall include the development and implementation of an oversight program to ensure proper operation and maintenance of on-site wastewater treatment systems for domestic wastewater. For municipalities, this program may be coordinated with local county health departments.~~
- ~~(4) — Permittees, delegated programs, and regulated entities must impose or require recorded restrictions and protective covenants to be recorded on the property in the Office of the Register of Deeds in the county where the property is located prior to the issuance of a certificate of occupancy in order to ensure that development activities will maintain the project consistent with approved plans.~~
- ~~(5) — Permittees, delegated programs, and regulated entities must implement or require an operation and maintenance plan that ensures the adequate long-term operation of the structural best management practices (BMP) required by the program. The operation and maintenance plan must require the owner of each structural BMP to submit a maintenance inspection report on each structural BMP annually to the local program.~~
- (2) APPLICABILITY. This Rule shall apply to all development [that is] subject to Rule .1016 of this Section or that disturbs one acre or more of land, including a development that disturbs less than one acre of land that is part of a larger common plan of development or sale, and is subject to a local NPDES post-construction stormwater program pursuant to Rule .0153 of this Subchapter. Where

1 this Rule is administered by the [State,] Division, it shall not apply to projects that are subject to any
2 of the following rules:

- 3 (a) Water Supply Watershed I (WS-I) – 15A NCAC 02B .0212;
- 4 (b) Water Supply Watershed II (WS-II) – 15A NCAC 02B .0214;
- 5 (c) Water Supply Watershed III (WS-III) – 15A NCAC 02B .0215;
- 6 (d) Water Supply Watershed IV (WS-IV) – 15A NCAC 02B .0216;
- 7 (e) [Freshwater] High Quality Waters (HQW) in Non-Coastal Counties – 15A
8 NCAC 02H .1021;
- 9 (f) [Freshwater] Outstanding Resource Waters (ORW) in Non-Coastal Counties –
10 15A NCAC 02H .1021;
- 11 (g) Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy –
12 15A NCAC 02B .0235;
- 13 (h) Tar-Pamlico River Basin Nutrient Sensitive Waters (NSW) Management Strategy
14 – 15A NCAC 02B .0258;
- 15 (i) Randleman Lake Water Supply Watershed Nutrient Management Strategy – 15A
16 NCAC 02B .0251;
- 17 (j) Jordan Water Supply Nutrient Strategy: Stormwater Management for New
18 Development – 15A NCAC 02B .0265;
- 19 (k) Falls Reservoir Water Supply Nutrient Strategy: Stormwater Management for
20 New Development – 15A NCAC 02B .0277;
- 21 (l) Coastal Counties: Stormwater Management Requirements – 15A NCAC 02H
22 .1019;
- 23 (m) Goose Creek Watershed: Stormwater Control Requirements – 15A NCAC 02B
24 .0602; or
- 25 (n) Universal Stormwater Management Program – 15A NCAC 02H .1020.

26 (3) GENERAL REQUIREMENTS FOR DEVELOPMENT. In addition to the requirements of this
27 Rule, development shall [also] comply with [the requirements for all projects subject to stormwater
28 rules set forth in] Rule .1003 of this Section.

29 (4) PROJECT DENSITY. A project shall be considered a low density project if it meets the low density
30 criteria set forth in Item (2) of Rule .1003 of this Section and contains no more than 24 percent built-
31 upon area or no more than two dwelling units per acre; otherwise, a project shall be considered high
32 density. Low density projects shall comply with the [MDC for low density projects] requirements
33 set forth in Item (2) of Rule .1003 of this Section. High density projects shall comply with the
34 [MDC for high density projects] requirements set forth in Item (3) of Rule .1003 of this [Section
35 and shall use SCMs designed to achieve either runoff treatment or runoff volume match in
36 accordance Item (5) of this Rule.] Section.

37 (5) REQUIRED STORM DEPTH. For high density projects [that use an SCM or SCMs] designed to

1 achieve runoff treatment, the required storm depth shall be one inch. ~~[For high density projects that~~
2 ~~use an SCM or SCMs designed to achieve runoff volume match, the post development runoff~~
3 ~~volume shall not exceed the pre development runoff volume for the 90th percentile storm.]~~
4 Applicants shall have the option to design projects to achieve “runoff volume match” in lieu of
5 “runoff treatment” as those terms are defined in Rule .1002 of this Section.

6 (6) OPERATION AND MAINTENANCE PLANS. Permittees and regulated entities shall implement
7 and delegated programs shall require an operation and maintenance plan for SCMs in accordance
8 with Rule .1050 of this Section. In addition, the operation and maintenance plan shall require the
9 owner of each SCM to annually submit a maintenance inspection report on each SCM to the local
10 program or regulated entity.

11 (7) FECAL COLIFORM REDUCTION. ~~[Permittees and regulated]~~ Regulated entities ~~and delegated~~
12 ~~programs~~ shall implement ~~[and delegated programs shall require]~~ a fecal coliform reduction
13 program that controls, to the maximum extent practicable, sources of fecal coliform. At a minimum,
14 the program shall include a pet waste management component, which may be achieved by revising
15 an existing litter ordinance, and an on-site domestic wastewater treatment system component to
16 ensure proper operation and maintenance of such systems, which may be coordinated with local
17 county health departments.

18 (8) DEED RESTRICTIONS AND PROTECTIVE COVENANTS. Restrictions and protective
19 covenants shall be recorded ~~by permittees or regulated entities~~ on the property in the Office of the
20 Register of Deeds in the county where the property is located prior to the issuance of a certificate of
21 occupancy ~~[in order to ensure that development activities will maintain the project consistent with~~
22 ~~approved plans.]~~ and in accordance with Rule .1003(7) of this Section.

23 (9) PROJECTS IN AREAS DRAINING TO SENSITIVE RECEIVING WATERS. Additional
24 requirements shall apply to projects located in areas draining to certain sensitive receiving waters
25 as follows:

26 (6) For areas draining to Class SA waters, permittees, delegated programs, and regulated entities must:

27 (A)(a) Use BMPs ~~[Projects]~~ projects ~~[located in areas draining]~~ subject to the Class SA waters
28 requirements of Rule .1019 of this Section shall meet ~~[the]~~ those requirements ~~[of Rule~~
29 ~~.1019 of this Section]~~ and shall use SCMs that result in the highest degree of fecal coliform
30 die-off and control ~~to the maximum extent practicable~~ sources of fecal coliform ~~to the~~
31 ~~maximum extent practicable;~~ while still incorporating the stormwater controls required by
32 the project's density level.

33 (B) ~~Implement a program to control the sources of fecal coliform to the maximum extent~~
34 ~~practicable, including a pet waste management component, which may be achieved by~~
35 ~~revising an existing litter ordinance, and an on-site domestic wastewater treatment systems~~
36 ~~component to ensure proper operation and maintenance of such systems, which may be~~
37 ~~coordinated with local county health departments.~~

- ~~(C) — Meet the requirements of Rule .1005(a)(2) of this Section.~~
- (7) ~~For areas draining to Trout Waters, permittees, delegated programs, and regulated entities must:~~
- ~~(A)(b) Use BMPs [Projects] projects located in areas draining to Trout waters shall use SCMs that avoid a sustained increase in the receiving water temperature, while still incorporating the stormwater controls required for the project's density level. temperature; and~~
- ~~(B) — Allow on site stormwater treatment devices such as infiltration areas, bioretention areas, and level spreaders as added controls.~~
- ~~(8) — For areas draining to Nutrient Sensitive Waters, permittees, delegated programs, and regulated entities must:~~
- ~~(A)(c) Use BMPs [Projects] projects located in areas draining to Nutrient Sensitive Waters shall use SCMs that reduce nutrient loading, while still incorporating the stormwater controls required for the project's density level. [Permittees] Delegated programs and regulated entities [shall have the option to] may implement [and delegated programs shall require] a nutrient application management program for inorganic fertilizer and organic nutrients to reduce nutrients entering waters of the State. In areas where the Department has approved subject to a Nutrient Sensitive Water Urban Stormwater Management Program, the provisions of that program fulfill the nutrient loading reduction requirement. Nutrient Sensitive Water Urban Stormwater Management Program requirements are found set forth in 15A NCAC 02B .0200.~~
- ~~(B) — Implement a nutrient application management program for both inorganic fertilizer and organic nutrients to reduce nutrients entering waters of the State.~~
- (10) VEGETATED SETBACKS. Vegetated setbacks from perennial waterbodies, perennial streams, and intermittent streams shall be required in accordance with Rule .1003 of this Section and shall be at least 30 feet in width. Vegetated setbacks from such waters shall be required if the water is shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture which is herein incorporated by reference, including subsequent amendments and editions, and [available] may be accessed at no cost at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/> or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS) which is herein incorporated by reference, including subsequent amendments and editions, and [available] may be accessed at no cost at <http://www.usgs.gov/pubprod/>. Relief from this requirement may be allowed when surface waters are not present in accordance with 15A NCAC 02B .0233(3)(a). In addition, an exception to this requirement may be pursued in accordance with Item (12) of this Rule.
- ~~(9) — For post construction requirements, a program will be deemed compliant for the areas where it is implementing any of the following programs:~~
- ~~(A) — Water Supply Watershed I (WS I) 15A NCAC 02B .0212;~~

- ~~(B) Water Supply Watershed II (WS II) 15A NCAC 02B .0214;~~
~~(C) Water Supply Watershed III (WS III) 15A NCAC 02B .0215;~~
~~(D) Water Supply Watershed IV (WS IV) 15A NCAC 02B .0216;~~
~~(E) Freshwater High Quality Waters (HQW) Rule .1006 of this Section;~~
~~(F) Freshwater Outstanding Resource Waters (ORW) Rule .1007 of this Section;~~
~~(G) The Neuse River Basin Nutrient Sensitive Waters (NSW) Management Strategy 15A NCAC 02B .0235;~~
~~(H) The Tar Pamlico River Basin Nutrient Sensitive (NSW) Management Strategy 15A NCAC 02B .0258; or~~
~~(I) The Randleman Lake Water Supply Watershed Nutrient Management Strategy 15A NCAC 02B .0251.~~
- ~~(10) In order to fulfill the post construction minimum measure program requirement, a permittee, delegated program, or regulated entity may use the Department's model ordinance, design its own post construction practices based on the Department's guidance on scientific and engineering standards for BMPs, incorporate the post construction model practices described in this act, or develop its own comprehensive watershed plan that is determined by the Department to meet the post construction stormwater management measure required by 40 Code of Federal Regulations § 122.34(b)(5) (1 July 2003 Edition).~~
- ~~(11) Nothing in this Paragraph (a) shall limit, expand, or alter the requirement that a discharge fully comply with all applicable State or federal water quality standards.~~
- ~~(b) Exclusions from Post Construction Practices. The post construction practices required by Paragraph (a) of this act shall not apply to any of the following:~~
- ~~(1)(11) EXCLUSIONS. Development in an area where the requirements of Paragraph (a) of this act are applicable that shall not be subject to this Rule if it is conducted pursuant to one of the following authorizations, provided that the authorization was obtained prior to the effective date of the post-construction stormwater control requirements in the area in which the development is located, and the authorization is valid, unexpired, unrevoked, and not otherwise terminated:~~
- ~~(A)(a) A a building permit pursuant to G.S. 153A-357 or G.S. 160A-417;~~
~~(B)(b) A a site specific "site specific" development plan plan" as defined by G.S. 153A-344.1(b)(5) and G.S. 160A-385.1(b)(5);~~
~~(C)(c) A a phased "phased" development plan plan" approved pursuant to as defined by G.S. 153A-344.1 for a project located in the unincorporated area of a county that is subject to the requirements of Paragraph (a), this Rule, if the Commission is responsible for implementation of the requirements of Paragraph (a), this Rule, that shows:~~
- ~~(i) For for the initial or first phase of development, the type and intensity of use for a specific parcel or parcels, including at a minimum, the boundaries of the project~~

and a subdivision plan that has been approved pursuant to G.S. 153A-330 through G.S. 153A-335, 153A-335; and

(ii) ~~For~~ for any subsequent phase of development, sufficient detail so [upon a finding by the Commission] that demonstrates to the permitting authority that implementation of the requirements of Paragraph (a) this Rule to that phase of development would require a material change in that phase of the plan, development as contemplated in the phased development plan. Sufficient detail may include documentation of financial expenditures and contractual obligations, a copy of [a] an approved site-specific development [plan approved prior to the effective date of the new rules,] plan, and a narrative of how the new rules will require a material change to the subsequent phase or phases of development;

~~(D)(d)~~ A a vested right to the development ~~under~~ pursuant to G.S. 153A-344(b), 153A-344.1, 160A-385(b), or 160A-385.1 issued by a local government that implements ~~Paragraph (a);~~ this Rule; or

~~(E)(e)~~ A a vested right to the development pursuant to common law.

~~(2) Redevelopment as defined in Rule .1015 of this Section.~~

~~(e)~~ (12) ~~Exceptions.~~ EXCEPTIONS. The Department or an appropriate local authority, pursuant to Article 18 of G.S. 153A or Article 19 of G.S. 160A, may grant exceptions from the 30-foot landward location of built-upon area requirement of Item (10) of this Rule as well as the deed restrictions and protective covenants requirement of Item (8) of this Rule as follows:

~~(+)(a)~~ An exception ~~may~~ shall be granted if the application meets all of the following criteria:

(A)(i) ~~Unnecessary~~ unnecessary hardships would result from strict application of the ~~act;~~ requirement, and these hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property, and not as a result from actions taken by the petitioner; and

(B) ~~The hardships result from conditions that are peculiar to the property, such as the location, size, or topography of the property;~~

(C) ~~The hardships did not result from actions taken by the petitioner; and~~

~~(D)(ii)~~ The the requested exception is consistent with the spirit, purpose, and intent of this act; Rule; will protect water quality; will secure public safety and welfare; and will preserve substantial justice. Merely proving that the exception would permit a greater profit from the property shall not be considered adequate justification for an exception.

~~(2)(b)~~ Notwithstanding ~~Item (1) Sub-Item(a) of this Paragraph, Sub-Item (12),~~ exceptions shall be granted in any of the following instances:

(A)(i) When when there is a lack of practical alternatives for a road crossing, railroad crossing, bridge, airport facility, or utility crossing as long as it is located, designed, constructed, and maintained to minimize ~~disturbance,~~ disturbance; provide maximum nutrient ~~removal,~~

removal; protect against erosion and ~~sedimentation~~, ~~sedimentation~~; have the least adverse effects on aquatic life and ~~habitat~~, ~~habitat~~; and protect water quality to the maximum extent practicable through the use of ~~BMPs~~, ~~SCMs~~; or

(B)(ii) ~~When when~~ there is a lack of practical alternatives for a stormwater management facility; a stormwater management pond; or a utility, ~~including, but not limited to,~~ including water, sewer, or gas construction and maintenance ~~corridor~~, corridor; as long as it is located 15 feet landward of all perennial ~~waterbodies~~, perennial streams, and intermittent ~~surface waters~~ streams and as long as it is located, designed, constructed, and maintained to minimize disturbance, provide maximum nutrient removal, protect against erosion and sedimentation, have the least adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practicable through the use of ~~BMPs~~, SCMs.

(C)(iii) A lack of practical alternatives may be shown by demonstrating that, considering the potential for an alternative configuration, or a reduction in size, configuration, size or density of the proposed activity and all alternative designs, activity, the basic project purpose ~~cannot~~ may not be practically accomplished in a manner ~~which that~~ would avoid or result in less adverse impact to surface waters.

(3)(c) ~~Reasonable and appropriate conditions~~ Conditions and safeguards may be imposed upon any exception ~~granted~~, granted in accordance with G.S. 143-215.1(b).

(4)(d) ~~Local authorities~~ Delegated programs and regulated entities shall ~~must~~ document the exception procedure and submit an annual report to the Department on all exception proceedings.

(5)(e) Appeals of the Department's exception decisions ~~must~~ shall be filed with the Office of Administrative Hearings, under G.S. 150B-23. Appeals of a local authority's exception decisions ~~must~~ shall be made to the appropriate Board of Adjustment or other appropriate local governing body, under pursuant to G.S. 160A-388 or G.S. 153A-345, 153A-345.1.

(13) In order to fulfill the post-construction minimum control measure program requirement, a permittee, delegated program, or regulated entity may use the Department's model ordinance, design its own post-construction practices based on the Department's guidance on scientific and engineering standards for SCMs, incorporate the post-construction model practices described in this Section, or develop its own comprehensive watershed plan that meets the post-construction stormwater management measure required by 40 CFR 122.34(b)(5) (1 July [2003 Edition and subsequent amendments and editions)-] 2015 Edition), which is incorporated by reference, not including subsequent amendments and editions. A copy of the reference material [can] may be accessed at no cost at <http://www.gpo.gov/fdsys/>.

(14) Nothing in this Rule shall alter the requirement that a discharge fully comply with all applicable State or federal water quality standards.

History Note: Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2006-246; S.L. 2008-198; Eff. July 3, 2012, 2012;

1 15A NCAC 02H .1018 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1018 URBANIZING AREAS: DELEGATION**

4 A public entity that does not administer the requirements of a NPDES MS4 permit for stormwater management
5 throughout the entirety of its planning jurisdiction and whose planning jurisdiction includes a regulated coverage area
6 pursuant to ~~Paragraphs (a) and (b) of~~ Rule .1016 of this Section may submit a stormwater management program for
7 its regulated coverage area or a portion of its regulated coverage area to the Commission for approval pursuant to G.S.
8 143-214.7(c) and (d). One paper copy of the stormwater management program shall be submitted to the Division.
9 The stormwater management program shall include an ordinance or regulation adopted by a public entity that meets
10 or exceeds the minimum requirements of Rules .1003 and .1017 of this Section. Two or more public entities are
11 authorized to establish a joint program and to enter into agreements that are necessary for the proper administration
12 and enforcement of the program. The resolution, memorandum of agreement, or other document that establishes any
13 joint program shall be duly recorded in the minutes of the governing body of each public entity participating in the
14 program, and a certified copy of each resolution shall be filed with the Commission. The Commission shall review
15 each proposed program submitted to it to determine whether the submission is complete. A complete submission is
16 ~~one that has one copy each of the required ordinance or regulation and, if applicable, certified resolutions with an~~
17 ~~effective date and other~~ shall contain the required ordinance or regulation; supporting documentation that demonstrates
18 a public entity's stormwater management program meets the ~~minimum~~ requirements of Rules .1003 and .1017 of this
19 ~~Section.~~ Section; and if applicable, certified resolutions with an effective date. Within 90 days after the receipt of a
20 complete submission, the Commission shall notify the public entity submitting the program that it has been approved,
21 approved with modifications, or disapproved. The Commission shall approve a program only upon determining that
22 its requirements ~~equal~~ meet or exceed those of Rules .1003 and .1017 of this Section. If the Commission determines
23 that any public entity is failing to administer or enforce an approved stormwater management program, it shall notify
24 the public entity in writing and shall specify the deficiencies of administration and enforcement. If the public entity
25 has not taken corrective action within 30 days of receipt of notification from the Commission, the Commission shall
26 assume administration and enforcement of the program until such time as the public entity indicates its willingness
27 and ability to correct the deficiencies identified by the Commission and resume administration and enforcement of the
28 program.

29
30 *History Note: Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 2006-246; S.L. 2011-220;*
31 *This Rule was previously codified in 2H .1016;*
32 *Eff. January 1, 2017.*
33

1 15A NCAC 02H .1019 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1019 COASTAL COUNTIES**

4 The purpose of this Rule is to protect ~~the surface water~~ surface waters in the 20 Coastal Counties from the impact of
5 stormwater runoff from new ~~development on the quality of various classifications of surface waters in the 20 Coastal~~
6 ~~Counties.~~ development.

7 (1) IMPLEMENTING AUTHORITY. This Rule shall be implemented by:

- 8 (a) local governments and other entities within the 20 Coastal Counties that are required to
9 implement a Post-Construction program as a condition of their NPDES permits;
10 (b) local governments and state agencies that are delegated to implement a stormwater
11 program pursuant to G.S. 143-214.7(c) and (d); and
12 (c) the Division in all other areas where this Rule applies.

13 (2) APPLICABILITY OF THIS RULE. This Rule shall apply to the following types of developments
14 within the Coastal Counties:

- 15 (a) ~~all developments~~ projects that require ~~a Sediment and an Erosion and Sedimentation~~
16 Control Plan pursuant to G.S. 113A-57;
17 (b) ~~all developments~~ projects that require a Coastal Area Management Act (CAMA) Major
18 Development Permit pursuant to G.S. 113A-118; and
19 (c) ~~developments~~ projects that do not require either ~~a Sediment and an Erosion and~~
20 Sedimentation Control Plan or a CAMA Major Development ~~Permit Permit~~, but meet one
21 of the following criteria:
22 (i) nonresidential ~~developments~~ projects that propose to cumulatively add 10,000
23 square feet or more of built-upon ~~area after the effective date of this Rule;~~ area;
24 or
25 (ii) residential ~~developments~~ projects that are within ½ mile of and draining to SA
26 ~~waters waters~~, and propose to cover 12 percent or more of the undeveloped
27 portion of the property with built-upon area.

28 (3) EFFECTIVE DATES. The effective dates are as ~~follows.~~ follows:

- 29 (a) for prior Rule .1000 of this Section, January 1, 1988;
30 (b) for prior Rule .1005 of this Section, September 1, 1995; ~~and~~
31 (c) for S.L. 2006-264, August 16, 2006; and
32 ~~(e)(d)~~ for S.L. 2008-211, October 1, 2008.

33 Prior versions of these rules are available for no cost on the Division's website at
34 [permits/stormwater-program](http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-</u>
35 <u><a href=).

36 (4) ~~MDC~~ GENERAL REQUIREMENTS FOR ALL PROJECTS. In addition to the requirements of
37 this Rule, development projects shall also comply with the ~~MDC as~~ requirements set forth in Rule

1 .1003 of this Section.

2 (5) DETERMINATION OF WHICH COASTAL STORMWATER PROGRAM APPLIES.

3 (a) ~~SA WATERS. WATER. The SA Waters Water~~ requirements shall apply to ~~development~~
4 ~~activities-projects~~ located within one-half mile of and draining to waters classified as SA
5 ~~SA-HQW or SA-ORW~~ per 15A NCAC 02B .0301.

6 (i) The SA boundary shall be measured from either the landward limit of the top of
7 bank or the normal high water level. In cases where a water is listed on the
8 Schedule of Classifications, but the applicant provides documentation from the
9 Division of Water Resources or the U.S. Army Corps of Engineers that the water
10 is not present on the ground, the applicant shall not be subject to the SA
11 requirements of this Rule.

12 ~~(ii) SA waters that have a supplemental classification of ORW shall be subject to~~
13 ~~additional special stormwater provisions per Items (6), (7) and (8) of this Rule.~~

14 ~~(iii) Projects that are partly located within an SA waters boundary shall follow the SA~~
15 ~~waters requirements in Item (6) of this Rule for that portion of the project that is~~
16 ~~inside the SA waters boundary and shall follow the Other Coastal Waters~~
17 ~~requirements of Item (6) of this Rule for the portion of the project that is outside~~
18 ~~the boundary.~~

19 ~~(iv)(ii)~~ (ii) An SCM with any portion of its drainage area located within the SA waters
20 boundary shall be designed to meet SA ~~waters~~ water requirements.

21 (b) FRESHWATER ORW. Freshwater ORW requirements shall apply to ~~development~~
22 ~~activities~~ projects that drain to waters classified as B-ORW and C-ORW per 15A NCAC
23 02B .0301.

24 ~~(i) Projects that are partly located within a non SA HQW or non SA ORW shall meet~~
25 ~~the requirements in Item (6) of this Rule for that portion of the project that is~~
26 ~~inside the freshwater ORW boundary and shall follow the Other Coastal Waters~~
27 ~~requirements of Item (6) of this Rule for the portion of the project that is outside~~
28 ~~the boundary.~~

29 ~~(iii) An SCM with any portion of its drainage area located within the freshwater ORW~~
30 ~~boundary shall be designed to meet freshwater ORW requirements.~~

31 (c) OTHER COASTAL COUNTY WATERS. WATER. If a ~~receiving stream~~ project does
32 not meet the applicability requirements for Sub-Items (5)(a) or (b) of this Rule, then it shall
33 ~~governed by other coastal water~~ be subject to the ~~[Other]~~ other Coastal County Water
34 requirements set forth in Item (6) of this Rule.

35 (d) PROJECTS THAT ARE SUBJECT TO TWO OR MORE COASTAL STORMWATER
36 PROGRAMS. Projects with portions that are located within two or more coastal
37 stormwater program boundaries shall meet the applicable requirements of Item (6) inside

each of the project's portions.

(6) STORMWATER REQUIREMENTS. Depending on the applicable program pursuant to Item (5) of this Rule, the following stormwater requirements shall apply:

(a) SUMMARY OF COASTAL PROGRAM REQUIREMENTS. The requirements associated with the Coastal Stormwater Program shall be in accordance with the following table.

Program that Applies	Maximum BUA for Low Density	Required Storm Depth for High Density Projects	Additional Special Provisions
SA-HQW SA Water that is <u>SA-HQW</u>	12%	95th percentile storm event One-year, 24-hour storm	SCMs for High Density SA Projects per Item (7) of this Rule
<u>SA Water that is SA-ORW</u>	12%	95th percentile storm event One-year, 24-hour storm	SCMs for High Density SA Projects per Item (7) of this Rule; and Density Requirements for SA-ORW Projects per Item (8) of this Rule
B-ORW or C-ORW <u>Freshwater ORW</u>	12%	90th percentile storm event 1.5 inch storm	None
Other coastal water <u>Coastal County Water</u>	24%	90th percentile storm event 1.5 inch storm	None

~~(b) BUILT UPON AREA THRESHOLDS. A project shall be considered a low density project if it contains no more than the specified percentage of built upon area and meets the low density criteria set forth in Rule.1003(2) of this Section; otherwise, a project shall be considered high density and shall meet the criteria set forth in Rule .1003(3) of this Section.~~

~~(c) REQUIRED STORM DEPTH. For high density projects subject to SA waters requirements, the required storm depth shall be the 95th percentile storm event. For high density projects subject to Freshwater ORW and other Coastal Waters requirements, the required storm depth shall be the 90th percentile storm event.~~

~~(d)~~(b) VEGETATED SETBACKS. For all subject projects within the Coastal Counties, vegetated setbacks from perennial waterbodies, perennial streams, and intermittent streams shall be at least 50 feet in width for new development and at least 30 feet in width for

- 1 redevelopment and shall comply with Rule .1003(4) of this Section.
- 2 (7) SCMS FOR SA WATER HIGH DENSITY PROJECTS REQUIREMENTS. High density projects
- 3 subject to SA ~~waters~~ water requirements shall use one of the following approaches for treating and
- 4 discharging stormwater:
- 5 (a) RUNOFF VOLUME MATCH. The project shall ~~meet~~ achieve runoff volume ~~match~~
- 6 ~~match, requirements for the 95th percentile storm event as set forth in Rule .1003 (3)(a)(ii)~~
- 7 ~~of this Section. and excess Runoff runoff volume in excess of the 95th percentile storm~~
- 8 ~~event~~ shall be released at a non-erosive velocity at the edge of the vegetated ~~setback,~~
- 9 ~~setback or to an existing stormwater drainage system.~~
- 10 (b) RUNOFF TREATMENT WITH NON-DISCHARGING SCMs. SCM(s) shall ~~treat the~~
- 11 ~~stormwater from the entire project~~ provide runoff treatment without discharging in excess
- 12 of the pre-development conditions during the 95th percentile one-year, 24-hour storm event
- 13 ~~as set forth in Rule .1003 (3)(a)(i) of this Section. event.~~ The runoff volume in excess of
- 14 the 95th percentile one-year, 24-hour storm event runoff volume shall be released at a non-
- 15 erosive velocity at the edge of the vegetated setback or to an existing stormwater drainage
- 16 system.
- 17 (c) RUNOFF TREATMENT WITH DISCHARGING SCMs. SCM(s) shall ~~treat the~~
- 18 ~~stormwater from the entire project during the 95th percentile~~ provide runoff treatment for
- 19 the difference between the pre- and post-development runoff volumes for the one-year, 24-
- 20 hour storm event as set forth in Rule .1003 (3)(a)(i) of this Section and meet the following
- 21 requirements:
- 22 (i) a licensed professional shall provide documentation that it is not feasible to meet
- 23 the MDC for infiltrations systems as set forth in Rule .1051 of this Section;
- 24 (ii) the stormwater shall be filtered through a minimum of 18 inches of sand prior to
- 25 discharge;
- 26 (iii) the discharge from the SCM ~~during the 95th percentile storm event~~ shall be
- 27 directed to either a level spreader-filter strip designed as set forth in Rule .1059
- 28 of this Section, a swale that fans out at natural grade, or a natural wetland that
- 29 does not contain a conveyance to SA waters; and
- 30 (iv) the runoff volume in excess of the 95th percentile one-year, 24-hour storm event
- 31 shall be released at a non-erosive velocity at the edge of the vegetated setback or
- 32 to an existing stormwater drainage system.
- 33 (8) DENSITY REQUIREMENTS FOR SA-ORW PROJECTS. The following shall apply:
- 34 (a) For the entire project, the percentage built-upon area shall not exceed 25 percent.
- 35 (b) For the portion of a project that is within 575 feet of SA-ORW waters, the percentage built-
- 36 upon area shall not exceed 25 percent for high density projects and shall not exceed 12
- 37 percent for low density projects.

1

2 *History Note:* *Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1);*
3 *Partial content of this Rule was previously codified in 2H .1005;*
4 *Eff. January 1, 2017.*

1 15A NCAC 02H .1020 is readopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1020 UNIVERSAL STORMWATER MANAGEMENT PROGRAM**

4 (a) Adoption of the Universal Stormwater Management Program (USMP) shall be made at the option of a local
5 government by adopting an ordinance that complies with ~~the requirements of~~ this Rule and the requirements of 15A
6 NCAC 02B .0104(f). The ~~Environmental Management~~ Commission shall approve local ordinances if it determines
7 that the requirements of the local ordinance ~~equal meet~~ or exceed the provisions of this ~~Rule~~. Rule and the requirements
8 of 15A NCAC 02B .0104(f). A model ordinance for the ~~Universal Stormwater Management Program~~ USMP shall be
9 available from at no cost on the ~~Division of Water Quality (DWQ).~~ [Division.] Division's website at
10 [http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-](http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-permits/usmp)
11 [permits/usmp](http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-permits/usmp). Administration and implementation of the USMP shall be the responsibility of the adopting local
12 government within its jurisdiction. Local governments located within one of the 20 Coastal Counties may elect to
13 have the ~~Division of Water Quality~~ administer and implement the ~~Universal Stormwater Management Program~~
14 USMP, either in whole or in part, within their jurisdiction following their adoption of the program. Adoption of the
15 USMP may not satisfy water quality requirements associated with the protection of threatened or endangered species
16 or those requirements associated with a Total Maximum Daily Load (TMDL). The requirements of the USMP shall
17 ~~supersede~~ supersede and replace all other existing post-construction stormwater requirements within that jurisdiction,
18 as specified in Paragraph (b) of this Rule.

19 (b) With the exceptions noted in Paragraph (c) of this Rule, the requirements specified in this Rule shall replace the
20 following ~~DWQ~~ post-construction stormwater control requirements:

- 21 (1) Water Supply (WS) Watershed II (WS II) (15A NCAC 02B .0214(3)(b)(i));
- 22 (2) WS Watershed II Critical Area (WS II CA) (15A NCAC 02B .0214(3)(b)(ii));
- 23 (3) WS Watershed III (WS III) (15A NCAC 02B .0215(3)(b)(i));
- 24 (4) WS Watershed III Critical Area (WS III CA) (15A NCAC 02B .0215(3)(b)(ii));
- 25 (5) WS Watershed IV (WS IV) (15A NCAC 02B .0216(3)(b)(i));
- 26 (6) WS Watershed IV Critical Area (WS IV CA) (15A NCAC 02B .0216(3)(b)(ii));
- 27 (7) High Quality Waters (HQW) for Freshwaters (~~15A NCAC 02H .1006~~); (15A NCAC 02H .1021);
- 28 (~~8~~) ~~High Quality Waters (HQW) for Saltwaters (15A NCAC 02H .1006);~~
- 29 (~~9~~)(8) Outstanding Resource Waters (ORW) for Freshwaters (~~15A NCAC 02H .1007~~); (15A NCAC 02H
30 .1021);
- 31 (~~10~~)(9) Outstanding Resource Waters (ORW) for Saltwaters (~~15A NCAC 02H .1007~~); (15A NCAC 02H
32 .1019);
- 33 (~~11~~)(10) Shellfishing Waters (SA) (~~15A NCAC 02H .1005(2)~~); (15A NCAC 02H .1019);
- 34 (~~12~~)(11) Post-Construction Stormwater Requirements of the Phase 2 NPDES MS4 Program (~~S.L. 2006-246~~);
35 (15A NCAC 02H .1017);
- 36 (~~13~~)(12) Coastal Counties Stormwater Requirements in 15A NCAC 02H ~~.1005(3)~~; .1019;

(14)(13) Stormwater ~~Controls~~ Management Plans for 401 Water Quality Certifications under 15A NCAC 02H .0500;

(15)(14) Catawba Buffer Rules (~~15A NCAC 02B .0243 and 02B .0244~~); (15A NCAC 02B .0243); and

(16)(15) Urban Stormwater Management Requirements of the Randleman Lake Water Supply Watershed Rules (15A NCAC 02B .0251).

(c) As mandated in 15A NCAC 02H .0506(b)(5) and (c)(5), the ~~Division~~ Director may review and require amendments to proposed stormwater control plans submitted under the provisions of the 401 Certification process certification process pursuant to Section 401 of the Clean Water Act (33 U.S.C. 1341) in order to ensure that the proposed activity will not violate water quality standards. ~~Adoption of the Universal Stormwater Management Program does not affect the requirements specified in 15A NCAC 02B .0214(3)(b)(i)(I), 02B .0214(3)(b)(ii)(C) and (D), 15A NCAC 02B .0215(3)(b)(i)(I), 02B .0215(3)(b)(ii)(C) and (D), and 15A NCAC 02B .0216(3)(b)(ii)(C) and (D). The Catawba Buffer Rules shall be superseded in those areas where the buffers are contained within the jurisdiction of another stormwater program listed in Paragraph (b) of this Rule and the requirements of that program are replaced by the USMP. For the watershed that drains to Lake James, which is not contained within the jurisdiction of another stormwater program, the Catawba Buffer Rules shall be superseded if the USMP is implemented in the entire area within five miles of the normal pool elevation of Lake James. The implementation of the USMP shall supersede the Urban Stormwater Management Requirements of the Randleman Lake Water Supply Watershed in 15A NCAC 02B .0251, but USMP implementation does not affect the Randleman Lake Water Supply Watershed; Protection and Maintenance of Riparian Areas requirements specified in 15A NCAC 02B .0250.~~

(d) Adoption of the USMP shall not affect the requirements specified in the following Rules:

(1) [15A NCAC 02B .0214(3)(b)(i)(I); 15A NCAC 02B .0214(3)(b)(i)(I);

(2) [02B .0214(3)(b)(ii)(C) and (D);] 15A NCAC 02B .0214(3)(b)(ii)(C) and (D);

(3) [15A NCAC 02B .0215(3)(b)(i)(I); 15A NCAC 02B .0215(3)(b)(i)(I);

(4) [02B .0215(3)(b)(ii)(C) and (D);] 15A NCAC 02B .0215(3)(b)(ii)(C) and (D); and

(5) 15A NCAC 02B .0216(3)(b)(ii)(C) and (D).

(e) The Catawba Buffer Rules shall be superseded in those areas where the buffers are contained within the jurisdiction of another stormwater program listed in Paragraph (b) of this Rule and the requirements of that program [are] shall be replaced by the USMP. For the watershed that drains to Lake James, which is not contained within the jurisdiction of another stormwater program, the Catawba Buffer Rules shall be superseded if the USMP is implemented in the entire area within five miles of the normal pool elevation of Lake James.

(f) The implementation of the USMP shall supersede the Urban Stormwater [Management] Requirements of the Randleman Lake Water Supply Watershed in 15A NCAC 02B .0251, but USMP implementation does not affect the Randleman Lake Water Supply Watershed: Protection and Maintenance of Existing Riparian [Areas] Buffers requirements specified in 15A NCAC 02B .0250.

(g) Coastal Counties Requirements. All development activities located in one of the 20 Coastal Counties that disturb 10,000 square feet or more of land, including projects that disturb less than 10,000 square feet of land that are part of a larger common plan of development or sale, shall control the runoff from the first one and one half inch of

rainfall to the level specified in Paragraph ~~(f)~~(i) of this Rule. In addition, all impervious surfaces, except for roads, paths, and water dependent structures, shall be located at least 30 feet landward of all perennial waterbodies, perennial streams, and intermittent ~~surface waters, streams.~~ In addition to the other requirements specified in this Paragraph, all development activities that are located within 575 feet of waters designated by the ~~Environmental Management~~ Commission as shellfishing waters shall be limited to a maximum impervious surface density of 36 percent. Redevelopment activities ~~that meet the provisions of 15A NCAC 02H .1002(14)~~ shall not be required to comply with the requirements of this Paragraph.

~~(e)~~(h) Non-Coastal Counties Requirements. All residential development activity that is located in one of the 80 Non-Coastal Counties that disturbs one acre or more of land, including residential development that disturbs less than one acre of land that is part of a larger common plan of development or sale, and all non-residential development activity that is located in one of the 80 Non-Coastal Counties that disturbs ½ acre or more of land, including non-residential development that disturbs less than ½ acre of land that is part of a larger common plan of development or sale, shall control the runoff from the first one inch of rainfall as specified in Paragraph ~~(f)~~(i) of this Rule. Except as allowed in this Paragraph, no new impervious or partially pervious surfaces, except for roads, paths, and water dependent structures, shall be allowed within the one percent Annual Chance Floodplain as delineated by the North Carolina Floodplain Mapping Program in the Division of Emergency ~~Management, Management~~ which is herein incorporated by reference, including subsequent amendments and editions, and [available] may be accessed at no cost at <http://www.ncfloodmaps.com/>. For perennial and intermittent streams that do not have a floodplain delineated by the Floodplain Mapping Program, all development activities subject to this Rule shall be located at least 30 feet landward of all perennial waterbodies, perennial streams, and intermittent ~~surface waters, streams.~~ In addition to the other requirements specified in this Paragraph, all development activities that are located within the area designated by the ~~Environmental Management~~ Commission as a Critical Area of a Water Supply Watershed as defined in 15A NCAC 02B .0202 shall be limited to a maximum impervious surface density of 36 percent. Redevelopment of residential structures within the one percent Annual Chance Floodplain ~~that meets the provisions of 15A NCAC 02H .1002(14)~~ is shall be allowed. Redevelopment of non-residential structures within the one percent Annual Chance Floodplain ~~that meets the provisions of 15A NCAC 02H .1002(14)~~ is shall be allowed provided that less than ½ acre is disturbed during the redevelopment activity. Redevelopment activities outside of the one percent Annual Chance Floodplain ~~that meet the provisions of 15A NCAC 02H .1002(14)~~ shall not be required to comply with the requirements of this Paragraph.

~~(f)~~(i) Structural stormwater controls required under Paragraphs ~~(d)~~(g) and ~~(e)~~(h) of this Rule shall meet the following criteria:

- (1) ~~Remove an 85 percent average annual amount of Total Suspended Solids.~~ Achieve achieve either runoff treatment or runoff volume match in accordance with Paragraphs (g) and (h) of this Rule; and
- (2) ~~For detention ponds draw down the treatment volume no faster than 48 hours, but no slower than 120 hours.~~

(3) Discharge the storage volume at a rate equal or less than the pre-development discharge rate for the 1-year, 24-hour storm.

(A) ~~For~~ for SCMs designed to achieve runoff treatment, the required storm depth shall be one and one half inch in the Coastal Counties and one inch in the Non-Coastal Counties.

(B) ~~For~~ [Applicants] applicants shall have the option to use SCMs designed to achieve [runoff volume match, the post-development runoff volume shall not exceed the pre-development runoff volume for the 90th-percentile storm.] “runoff volume match” in lieu of “runoff treatment” in accordance with the definitions of those terms in Rule .1002 of this [Section.] Section; and

(4)(2) ~~Meet meet~~ the General Engineering Design Criteria requirements for all projects subject to stormwater rules as set forth in 15A NCAC 02H .1008(e). Rule .1003 of this Section.

(g)(j) For the purposes of this Rule, a surface water shall be deemed present if the feature is shown on either the most recent ~~complete~~ published version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture which is herein incorporated by reference, including subsequent amendments and editions, [available] and may be accessed at no cost at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/> or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). ~~(USGS)~~ which is herein incorporated by reference, including subsequent amendments and editions, [available] and may be accessed at no cost at <http://www.usgs.gov/pubprod/>. Relief from this requirement ~~shall may~~ be allowed when surface waters are [determined] not ~~[to be]~~ present in accordance with the provisions of 15A NCAC 02B .0233 (3)(a).

(h)(k) Local governments that implement the ~~Universal Stormwater Management Program~~ USMP shall require recorded applicants to record deed restrictions and protective covenants that ensure ~~development activities will maintain that~~ the project will be maintained in perpetuity consistent with approved plans.

(i)(l) Local governments that implement the ~~Universal Stormwater Management Program~~ USMP shall require an operation and maintenance plan that ensures the operation of the structural stormwater control measures required by the ~~program~~ USMP. The operation and maintenance plan shall require the owner of each structural control to submit a maintenance inspection report on each structural stormwater control measure annually to the local program.

(j)(m) In addition to the other measures required in this Rule, all development activities located in one of the 20 Coastal Counties that disturb 10,000 square feet or more of land within ½ mile and draining to SA waters shall:

- (1) ~~Use use~~ stormwater control measures that result in fecal coliform ~~die-off~~ die-off and that control to the maximum extent practicable sources of fecal coliform while ~~incorporating the requirements specified in complying with Paragraph (f)(i) of this Rule.~~ Rule; and
- (2) ~~Prohibit prohibit~~ new direct points of stormwater discharge to SA waters or expansion (increase in the volume of stormwater flow through conveyances or increase in capacity of conveyances) of existing stormwater conveyance systems that drain to SA waters. Any modification or redesign of a stormwater conveyance system within the contributing drainage basin ~~must shall~~ not increase the net amount or rate of stormwater discharge through existing outfalls to SA waters. Diffuse flow of

stormwater at a non-erosive velocity to a vegetated buffer or other natural area capable of providing effective infiltration of the runoff from the 1-year, 24-hour storm shall not be considered a direct point of stormwater discharge. Consideration shall be given to soil type, slope, vegetation, and existing hydrology when evaluating infiltration effectiveness.

~~(k)(n)~~ In addition to the other measures required in this Rule, development activities draining to trout (Tr) waters shall use stormwater control measures that ~~avoid~~ do not cause an increase in the receiving water ~~temperature~~, temperature while still incorporating the requirements specified in Paragraph ~~(f)(i)~~ of this Rule.

~~(h)(o)~~ The Division, upon determination that a local government is failing to implement or enforce the approved local stormwater program, shall notify the local government in writing of the local ~~program inadequacies~~, program's deficiencies. If the local government has not corrected the deficiencies within 90 days of receipt of written notification from the Division, then the Division shall implement and enforce the provisions of this Rule. take the following action:

(1) implement the requirements of 15A NCAC 02B .0243 and 15A NCAC 02H .1019, and .1021 in lieu of the local government's administration of the USMP in areas subject to those Rules; and

(2) enforce the requirements of 15A NCAC 02B .0214 through .0216, and .0251, and 15A NCAC 02H .0500 and .1017 in areas subject to those Rules.

~~(m)(p)~~ Development activities conducted within a jurisdiction where the USMP has been implemented may take credit for the nutrient reductions achieved by utilizing diffuse flow in the one percent Annual Chance Floodplain to comply with the nutrient loading limits specified within NSW Rules where the one percent Annual Chance Floodplain exceeds the 50-foot Riparian Buffers. Development activities occurring where the USMP has been implemented but there is no delineated one percent Annual Chance Floodplain may take credit for the nutrient reductions achieved by utilizing diffuse flow into a vegetated filter strip that exceeds the 50-foot Riparian Buffer by at least 30 feet and has a slope of five ~~degrees~~, degrees or less.

~~(n)(q)~~ The following special provisions of the ~~Universal Stormwater Management Program~~ USMP apply only to federal facilities and Department of Defense (DoD) installations. Federal facilities and DoD installations may adopt the ~~Universal Stormwater Management Program~~ USMP within their boundaries by submitting a letter to the Chairman of the ~~Environmental Management~~ Commission that states that the facility in question has adopted controls that comply with the requirements of this Rule and with the requirements of 15A NCAC 02B .0104(f). In lieu of the protective covenants and deed restrictions required in Paragraph ~~(f)(k)~~ of this Rule, federal facilities and DoD installations that choose to adopt the USMP within their boundaries shall incorporate specific restrictions and conditions into base master ~~plans~~, plans or other appropriate ~~instruments~~, instruments to ensure that development activities regulated under this Rule will be maintained in a manner consistent with the approved plans.

~~(o)(r)~~ Implementation of this ~~Universal Stormwater Management Program~~ USMP does not affect any other rule or requirement not specifically cited in this Rule.

History Note: Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.1; 143-215.3(a); 143-215.6A; 143-215.6B; 143-215.6C;
Eff. January 1, ~~2007~~, 2007;

1 *Readopted Eff. January 1, 2017.*
2

1 15A NCAC 02H .1021 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1021 NON-COASTAL COUNTY HIGH QUALITY WATERS (HQW) AND**
4 **OUTSTANDING RESOURCE WATERS (ORW)**

5 The purpose of this Rule is to minimize the impact of stormwater runoff from development on the water quality of
6 surface waters and to protect their designated best usages in management zones of Non-Coastal County High
7 Quality Waters (HQW) and Outstanding Resource Waters (ORW).

- 8 (1) IMPLEMENTING AUTHORITY. This rule shall be implemented by the Division.
- 9 (2) APPLICABILITY. This Rule shall apply to development activities outside of Coastal Counties that
10 ~~are required to obtain a Sedimentation and~~ require an Erosion and Sedimentation Control Plan
11 pursuant to G.S. 113A-57 and are either:
- 12 (a) within one mile of and draining to waters classified as HQW except that development
13 located in WS-I or WS-II watersheds as set forth in 15A NCAC 2B .0212 and .0214 are
14 excluded from the requirements of this Rule; or
- 15 (b) draining to waters classified as ORW.
- 16 (3) EFFECTIVE DATE. ~~The stormwater requirements contained in this Rule became effective date of~~
17 prior Rules .1006 and .1007 of this Section is on September 1, 1995.
- 18 (4) GENERAL REQUIREMENTS FOR NEW DEVELOPMENT. In addition to the requirements of
19 this Rule, ~~development projects~~ shall also comply with the requirements ~~for all projects~~ set forth in
20 Rule .1003 of this Section.
- 21 (5) PROJECT DENSITY. A project shall be considered a low density project if meets the low density
22 criteria set forth in Item (2) of Rule .1003 of this Section and it contains no more than 12 percent
23 built-upon area or no more than one dwelling unit per acre and meets the low density criteria set
24 forth in Item (2) of Rule .1003 of this Section; acre; otherwise, a project shall be considered high
25 density. Low density projects shall comply with the requirements set forth in Item (2) of Rule .1003
26 of this Section. High density projects shall comply with the requirements set forth in Item (3) of
27 Rule .1003 of this Section.
- 28 (6) REQUIRED STORM DEPTH. ~~For high density projects, projects designed to achieve runoff~~
29 treatment, the required treatment volume shall be based on a storm depth of shall be one inch. For
30 high density projects that are designed to achieve runoff volume match, the post development runoff
31 volume shall not exceed the pre-development runoff volume for the 90th percentile storm. Applicants
32 shall have the option to design projects to achieve "runoff volume match" in lieu of "runoff
33 treatment" as those terms are defined in Rule .1002 of this Section.
- 34 (7) VEGETATED SETBACKS. Vegetated setbacks from perennial waterbodies, perennial streams,
35 and intermittent streams shall be at least 30 feet in width for both low and high density developments
36 and shall comply with Rule .1003(4) of this Section.

~~(8) — ADDITIONAL PROTECTION. The requirements of this Rule serve as the minimum conditions that shall be met by development activities. More stringent stormwater requirements may be developed by the Division on a case by case basis during permit review and approval where the Division determines that additional measures are necessary to:~~

~~(i) — protect water quality standards;~~

~~(ii) — maintain present and anticipated best usages; or~~

~~(iii) — protect outstanding resource values pursuant to 15A NCAC 2B .0225(b).~~

History Note: Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a);

Portions of this Rule were previously codified in 2H .1006 and .1007;

Eff. January 1, 2017.

1 15A NCAC 02H .1040 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1040 PERMIT ADMINISTRATION**

4 This Rule applies to the permitting processes set forth in Rules .1041 through .1045 of this Section.

5 (1) SIGNATURES ON PERMIT APPLICATION FORMS. Application forms shall have an original
6 signature by one of the following entities unless the application is accompanied by a letter of
7 authorization signed by the appropriate authority as designated in Sub-Items (a) through (d) of this
8 Item authorizing the signature of another entity:

9 (a) in the case of a corporation, by a principal executive officer of the level of vice-president
10 or his authorized representative. In the case of a limited liability corporation (LLC), by a
11 manager or company official as those terms are defined in G.S. 57D "North Carolina
12 Limited Liability Company Act;"

13 (b) in the case of a partnership, by a general partner or a managing partner. In the case of a
14 limited partnership, by a general partner;

15 (c) in the case of a proprietorship, by the proprietor(s); or

16 (d) in the case of a municipal, state, or other public entity, by either a principal executive
17 officer, ranking official, or other duly authorized employee.

18 (2) PERMIT PROCESSING TIMES. The Division shall process permit applications and additional or
19 amended information pursuant to G.S. 143-215.1.

20 (3) DELEGATION. For permits issued by the Division, the Director ~~is~~ shall be authorized to delegate
21 to Division staff any ~~or all~~ of the functions contained in these ~~Rules~~ Rules, except the following:

22 (a) denying a permit application;

23 (b) revoking a permit if such revocation is not requested by the permittee;

24 (c) modifying a permit not requested by the permittee; and

25 ~~(d) issuing a Director's Certification; and~~

26 ~~(e)(d)~~ calling for a public notice or meeting.

27 (4) PERMIT ISSUANCE. The following shall apply to stormwater management permits issued by the
28 Division:

29 (a) ~~Stormwater~~ stormwater management permits issued for low density projects shall not
30 require permit renewal;

31 (b) ~~Stormwater~~ stormwater management permits issued for projects that require the
32 construction of engineered stormwater control measures shall be issued for a period not to
33 exceed 8 years; and

34 (c) ~~Stormwater~~ stormwater management permits shall be issued to the property owner or to a
35 lessee, purchaser, or developer with the written permission of the property owner, and shall
36 cover the entire project.

37 (5) PERMIT DENIAL. If the Director denies a permit, the letter of denial shall state the reason(s) for

denial and the Director's estimate of the changes in the applicant's proposed activities or plans that would be required in order that the applicant may obtain a permit. Permit applications may be denied where the proposed project ~~will result~~ results in noncompliance with:

- (a) the purposes of G.S. 143, Article 21;
- (b) the purposes of G.S. 143-215.67(a);
- (c) rules governing coastal waste treatment or disposal, found in Section .0400 of this Subchapter;
- (d) rules governing "subsurface disposal systems," found in 15A NCAC 18A .1900. Copies of these Rules are available from the North Carolina Division of Public Health, 1632 Mail Service Center, Raleigh, North Carolina 27699-1632; or
- (e) rules governing groundwater quality standards found in Subchapter 2L of this Chapter.

(6) PERMIT REVOCATION OR MODIFICATION. Permits issued pursuant to these Rules are subject to revocation, or modification by the Director upon 60 days' written notice by the Director in whole or in part for good cause including the following:

- (a) violation of any terms or conditions of the permit;
- (b) obtaining a permit by misrepresentation or failure to disclose all relevant facts; or
- (c) refusal of the permittee to allow authorized employees of the Department of Environmental Quality, upon presentation of credentials:
 - (i) to enter upon permittee's premises in which any records are required to be kept under terms and conditions of the permit;
 - (ii) to have access to any and all records required to be kept under terms and conditions of the permit;
 - (iii) to inspect any monitoring equipment or method required in the permit; or
 - (iv) to sample any discharge of pollutants.

(7) DIRECTOR'S CERTIFICATION. With the exception of the fast track permitting ~~process, as set forth in Rules .1043 and .1044 of this Section,~~ projects that do not comply with the requirements of this Section may be approved on a case-by-case basis if the project is certified by the Director that water quality standards and best usages will not be threatened. Approval of alternative designs for SCMs that do not meet all the MDC shall be in accordance with Rule .1003 ~~(e)~~ (6) of this Section. Approval of new stormwater technologies shall be in accordance with Rule ~~.1031-.1050~~ (15) of this Section. The applicant shall provide information that demonstrates to the Director that:

- (a) there are practical difficulties or hardships due to the physical nature of the project such as its size, ~~shape~~ shape, or topography that prevent strict compliance with this Section; and
- (b) water quality standards and best usages will be protected, including development plans and specifications for SCMs that will be installed in lieu of the requirements of this Section or information that demonstrates that the project is located such that impacts to surface waters from pollutants present in stormwater from the site will be mitigated.

- 1 (8) PUBLIC NOTICE. The Director is authorized to call for a public notice or ~~meeting~~ hearing to solicit
2 and receive comments from other regulatory agencies and the public to obtain additional information
3 needed to complete the review of either the stormwater permit application or the stormwater
4 conditions. If comments are solicited, notice shall be posted on the Division's website and shall
5 provide the public ~~a period of~~ at least 30 ~~calendar~~ days after publication to submit comments to the
6 Director. The permit application shall be included in the notice published on the Division's website.
- 7 (9) CONTESTED CASE HEARING. An applicant whose application is denied or who is issued a
8 permit subject to conditions that are not acceptable to the applicant may seek a contested case
9 hearing pursuant to G.S. 150B-23.
- 10 (10) COMPLIANCE. Any individual or entity found to be in noncompliance with the provisions of a
11 stormwater management permit or the requirements of this Section ~~is~~ shall be subject to enforcement
12 procedures as set forth in G.S. 143, Article 21.

13
14 *History Note: Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a); 143-215.3D; 143-215.6A; 143-*
15 *215.6B; 143-215.6C;*
16 *Portions of this Rule were previously codified in 2H .1003, 2H .1010, 2H .1011, and 2H .1012;*
17 *Eff. January 1, 2017.*

1 15A NCAC 02H .1041 is adopted as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1041 GENERAL PERMITS**

4 (a) In accordance with the provisions of G.S. 143-215.1(b)(3) and (4), general permits may be developed by the
5 Division and issued by the Director for categories of activities covered in this Section. Each of the general permits
6 shall be issued separately pursuant to G.S. 143-215.1, using all procedural requirements specified for State permits
7 including application and public notice.

8 (b) General permits may be written to regulate categories of activities that:

- 9 (1) involve the same or ~~substantially~~ similar operations;
10 (2) have similar characteristics;
11 (3) require the same limitations or operating conditions;
12 (4) require the same or similar monitoring; and
13 (5) are ~~adequately~~ controlled by a general permit as determined by the Director.

14 (c) General permit coverage shall be available to activities, ~~including:~~ such as the following:

- 15 (1) construction of bulkheads and boat ramps;
16 (2) installation of sewer lines with no proposed built-upon areas;
17 (3) construction of an individual single family residence; and
18 (4) other activities that, as determined by the Director, meet the criteria of Paragraph (b) of this Rule.

19 (d) General permits may be ~~modified, terminated, revoked, and reissued~~ modified or revoked in accordance with the
20 authority and requirements of Rule .1040 of this Section.

21 (e) Procedural requirements for application and permit approval, unless ~~specifically~~ designated as applicable to
22 persons proposed to be covered under the general permits, apply only to the issuance of the general permits.

23 (f) After issuance of the general permit by the Director, persons engaged in activities in the applicable categories may
24 request coverage under the general permit, and if an activity falls within a category of activities governed by the
25 general permit the Director or his designee shall grant ~~appropriate~~ coverage. All activities that receive a "Certificate
26 of Coverage" for that category of activity shall be deemed governed by that general permit.

27 ~~(g) Activities covered under general permits, developed in accordance with this Rule, shall be subject to the standards
28 and limits, management practices, enforcement authorities, and rights and privileges specified in the general permit.~~

29 ~~(h)(g)~~ No provision in any general permit issued under this Rule shall be interpreted to allow the permittee to violate
30 state water quality standards or other applicable environmental standards.

31 ~~(i)(h)~~ For a general permit to apply to an activity, a Notice of Intent to be covered by the general permit shall be
32 submitted to the Division using forms provided by the Division on the Division's website at
33 ~~<http://portal.ncdenr.org/web/1r/stormwater>~~. [http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-](http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-program)
34 [mineral-land-permits/stormwater-program](http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-program). ~~The Notice of Intent shall comply with the application~~ In addition to the
35 application procedures ~~specified set forth~~ in Rules .1040 and .1042 of this Section, ~~as appropriate. In addition,~~
36 Section, the Notice of Intent shall include the following:

- 37 (1) project name and physical location;

- (2) receiving stream name and classification;
- (3) total project area above mean high water;
- (4) total amount of proposed built-upon area;
- (5) description of best management practices employed at the project site;
- (6) two sets of site and grading plans; if applicable, plans shall show wetland delineation and the "AEC" line as established by the North Carolina Coastal Resources Commission pursuant to Sections .0100 through .0600 of 15A NCAC 7H; and
- (7) location of the project indicated on a U.S. Geological Survey (USGS) map.

If all requirements are met, coverage under the general permit may be granted. If all requirements are not met, or the Director determines the activity is not governed by the general permit, then the applicant shall be notified in writing and may apply for an individual permit pursuant to this Section.

~~(j)(i)~~ General permits may be modified and reissued by the Division as necessary. Activities covered under general permits need not submit new Notices of Intent or renewal requests unless so directed by the Division. If the Division chooses not to renew a general permit, all facilities covered under that general permit shall be notified to submit applications for individual permits.

~~(k)(j)~~ All previous state water quality permits issued to a facility that ~~can~~ may be covered by a general permit, whether for construction or operation, ~~are~~ shall be revoked upon request of the permittee, termination of the individual permit, and issuance of the Certification of Coverage.

~~(k)(k)~~ ~~Anyone~~ Any person engaged in the activities governed by the general permit rules but set forth in G.S. 143-215.1 and not permitted in accordance with this Section shall be ~~considered~~ in violation in G.S. 143-215.1.

~~(m)(l)~~ Any person covered or considering coverage under a general permit may choose to pursue an individual permit for any activity covered by this Section.

~~(n)(m)~~ The Director may require any person, otherwise eligible for coverage under a general permit, to apply for an individual permit by notifying that person that an individual permit application is required. Notification shall consist of a written description of the reason(s) for the decision, appropriate permit application forms and application instructions, a statement establishing the required date for submission of the application, and a statement informing the person that coverage by the general permit shall automatically terminate upon issuance of the individual permit. Reasons for requiring application for an individual permit include:

- (1) the activity is a significant contributor of pollutants;
- (2) a change in the conditions at the permitted site, altering the constituents or characteristics of the site such that the activity no longer qualifies for coverage under a general permit;
- (3) noncompliance with the general permit;
- (4) noncompliance with other provisions of ~~15A NCAC 02;~~ G.S. 143-215.1;
- (5) a change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the activity; or
- (6) a determination that the water of the stream receiving stormwater runoff from the site is not meeting applicable water quality standards.

1 ~~(e)~~(n) Any interested person may petition the Director to take an action under Paragraph ~~(n)~~(m) of this Rule to require
2 an individual permit. A petition shall be submitted in writing by mail or email to the Director.

3
4 *History Note: Authority G.S. 143-215.1; 143-215.3(a);143-215.3D;*
5 *This Rule was previously codified in 2H .1013;*
6 *Eff. January 1, 2017.*
7

1 15A NCAC 02H .1042 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1042 STANDARD PERMITTING PROCESS**

4 This Rule contains the requirements for the application, review, issuance, and denial of state stormwater management
5 permits under the standard permitting process.

6 (1) APPLICABILITY. This rule applies to:

- 7 (a) any person seeking to permit a development activity subject to a stormwater program
8 implemented by the Division under the standard permitting process; and
9 (b) any person proposing a major modification to an existing state stormwater permit under
10 the standard permitting process.

11 (2) APPLICATION SUBMITTAL REQUIREMENTS. The applicant shall submit a nonrefundable
12 permit application fee in accordance with G.S. 143-215.3D and two signed hard copies [~~with~~
13 ~~original signatures~~] and one electronic copy of each of the following:

- 14 (a) a completed and signed Standard Process Application Form. This form ~~can~~ may be
15 obtained on the Division's website at ~~http://portal.ncdenr.org/web/1r/stormwater-~~
16 http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-
17 permits/stormwater-program and shall include the following information:
18 (i) current project name and previous project name, if applicable;
19 (ii) information about the physical location of project;
20 (iii) stormwater project number, if assigned;
21 (iv) density of the entire project and each drainage area;
22 (v) information about applicability of other State and federal environmental permits
23 to the project including CAMA Major Development Permits, NPDES,
24 ~~Sedimentation and Erosion and Sedimentation Control Plan, Plans,~~ and Section
25 ~~404/401~~ Section 401 of the Clean Water Act (33 U.S.C. 1341) permits;
26 (vi) description of SCMs that will be used on the project;
27 (vi) information about vested rights, if applicable;
28 (vii) applicant name, ~~address~~ address, and contact information; and
29 (ix) owner name, ~~address~~ address, and contact information.
30 (b) when the applicant is a corporation or limited liability corporation (LLC):
31 (i) documentation showing the corporation or LLC is an active corporation in good
32 standing with the NC Secretary of State; and
33 (ii) documentation from the NC Secretary of State or other official documentation
34 showing the titles and positions held by the person who signed the application
35 pursuant to Rule .1040(1) of this Section;

- (c) when the applicant is not the property owner, a copy of a lease agreement, affidavit, or other document showing that the applicant has obtained legal rights to submit a stormwater permit application within the proposed project area;
- (d) a U.S. Geological Survey (USGS) map identifying the project location and the GPS coordinates for the project. ~~Any areas~~ Areas within the project that are subject to ~~SA, ORW, SA Waters, Outstanding Resource Waters (ORW), or HQW~~ High Quality Waters (HQW) stormwater requirements set forth in Rules .1019 and .1021 of this Section shall be shown on the map;
- (e) a location map with street names and SR numbers to the nearest intersection, with 1, 2, or 3 digit road numbers, legend, and north arrow. This map is not required to be to scale;
- (f) signed, sealed, and dated calculations and documentation of project density and allocation of built-upon area for ~~future lots, pursuant to Rule .1003 of this Section;~~ all lots at project completion.
- (g) signed, sealed, and dated plans of the entire site that are a minimum of 22 inches by 34 inches in size and are at a legible scale. All plan packages shall include:
- (i) project name, designer, and dates;
 - (ii) dimensioned project or project phase boundary with bearings and distances;
 - (iii) the boundaries of all surface waters, wetlands, regulatory flood zones, protected vegetated setbacks, and protected riparian buffers, or a note on the plans that none exist;
 - (iv) proposed contours and drainage patterns;
 - (v) site layout showing all existing and proposed built-upon areas, except for built-upon areas associated with single family residential lots and outparcels on commercial developments that are undetermined at the time of project submittal;
 - (vi) subdivision lot lines, maintenance access routes and easements, utility and drainage easements, public rights of way, and SCMs; and
 - (vii) the location of the stormwater collection system, including the locations of the inlets, outlets, pipes, and swales, as well as the inverts and diameters of pipes, excluding driveway culverts.
- ~~(viii) the~~ The Division ~~may~~ shall accept conceptual stormwater plans in lieu of this Sub-Item when the applicant can demonstrate that the project complies with this Section, including that SCMs will be properly sized and sited. The detailed plans shall be provided to the Division for review before construction begins;
- (h) signed, sealed, and dated plan details of each SCM in plan view at a scale of one inch equal to 30 feet or larger and a cross-section view. Other scales may be accepted if the scale is such that all details are legible on a copy. The plan details shall include:

- (i) dimensions, side slopes, and elevations with a benchmark for clean-out if appropriate;
- (ii) all conveyance devices, including inlet device, bypass structure, pretreatment area, flow distribution device, underdrains, outlet device, energy dissipater, and level spreader; and
- (iii) specification sheets for materials used in the SCM, such as planting media, filter media, and aggregate;
- (i) signed, sealed, and dated planting plans for each SCM that requires a planting plan per the Minimum Design Criteria. The planting plan shall include:
- (i) plant layout with species names and locations;
- (ii) total number and sizes of all plant species; and
- (iii) for stormwater wetlands, a delineation of planting zones;
- (j) a signed and notarized operation and maintenance agreement;
- (k) for major modifications, a copy of the recorded deed restrictions and protective covenants limiting the built-upon area so that it does not exceed the capacity of the SCM(s) or the BUA thresholds. For new projects, proposed deed restrictions and protective covenants. A signed agreement to provide final recorded articles shall be accepted when final documents are not available at the time of submittal; and
- (l) for major modifications, a copy of the recorded drainage ~~easements~~ easements, when applicable. For new projects, proposed drainage easements shown on the plans, and a signed agreement to provide final recorded drainage easements if recorded documents are not available at the time of submittal.
- (3) DIVISION REVIEW OF APPLICATIONS.
- (a) The Division shall take one of the following actions:
- (i) ~~Notify~~ notify the applicant that additional information is necessary for the Division to determine whether the project complies with this Section. The Division shall provide a list of the additional information that is required. The applicant shall have ~~no more than 30 calendar~~ days from the date the letter was sent to submit the additional information to the Division;
- (ii) ~~Return~~ return the application if the required information listed in Item (2) of this Rule is not provided or if information the Division has requested per Sub-Item (i) of this Sub-Item is not provided within 30 days. In this case, the application shall be deemed denied, and the applicant shall be required to resubmit a complete application with a new application fee;
- (iii) ~~Issue~~ issue a permit pursuant to Rule .1040 of this Section; or
- (iv) ~~Deny~~ deny a permit pursuant to Rule .1040 of this Section.

(b) The Division ~~may~~ shall require an applicant to submit plans, specifications, and other information it considers necessary to evaluate the application when the information provided is inadequate or incorrect. The applicant shall allow the Division safe access to the records, lands, and facilities of the applicant.

(c) If the Division fails to act within the required response times set forth in G.S. 143-215.1, then the application shall be considered approved unless:

- (i) the applicant agrees, in writing, to a longer period;
- (ii) a final decision is to be made pursuant to a public hearing;
- (iii) the applicant fails to furnish information necessary for the Division's decision in accordance with Item (2) or Sub-Item (3)(a) of this Rule; or
- (iv) the applicant refuses the staff access to its records or premises for the purpose of gathering information necessary for the Division's decision.

(4) FINAL SUBMITTAL REQUIREMENTS IF COMPLETED PROJECT COMPLIES WITH PERMITTED PLANS. If the actual built-upon area is equal to or less than that shown on the permitted plans and the constructed SCM is in compliance with the approved plans, then within ~~30~~ 45 calendar days of completion of the project the applicant shall submit to the Division one hard copy and one electronic copy of the following:

(a) a completed and signed Designer's Certification ~~Form that states that the project was built as approved;~~ Form. This form may be obtained on the Division's website at <http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-program> and shall include the following information:

- (i) designer name and licensure number;
- (ii) project name;
- (iii) project owner name; and
- (iv) information about deviations from approved plans and specifications;

(b) unless already provided with the permit application, a copy of the recorded deed restrictions and protective covenants limiting the built-upon area so that it does not exceed the capacity of the SCM(s) or the built-upon area thresholds; and

(c) a copy of the recorded drainage ~~easements~~ easements, when applicable.

(5) IF PROJECT DOES NOT COMPLY WITH PERMITTED PLANS. If the actual built-upon area exceeds that shown on the permitted plans or if the constructed SCM is not in compliance with the approved plans, then within ~~30 calendar~~ days of completion of the ~~project~~ project, the applicant shall submit an application for a modified stormwater permit in accordance with the requirements of this Rule. On a case-by-case basis, based on the project's size and complexity, the Division may grant the applicant more time to submit the modification application.

History Note: Authority G.S. 143-214.7; 143-215.1; 143-215.3; 143-215.3(a);143-215.3D;

1 *Portions of this Rule were previous codified in 2H .1008, 2H .1009, and 2H .1010;*
2 *Eff. January 1, 2017.*

1 15A NCAC 02H .1043 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1043 FAST TRACK PERMITTING PROCESS: AUTHORIZATION TO CONSTRUCT**

4 The purpose of this Rule is to set forth the first of two phases of the Fast-Track Stormwater Permit application process:
5 applying for and receiving an authorization to construct permit. There will be a completeness review during the first
6 phase of this process; however, at project completion, the Division ~~will~~ shall review the as-built submittal package to
7 determine compliance with the ~~MDCs~~, Minimum Design Criteria (MDC).

8 (1) **APPLICABILITY.** The fast-track permitting process shall be an option for new projects and major
9 modifications of existing projects provided that all of the MDC shall be met upon project
10 completion. Projects that do not qualify for the fast-track permitting process include:

- 11 (a) projects claiming an exemption from the MDC based on vested rights, a waiver, or
12 Director's certification pursuant to Rule .1040(7) of this Section;
13 (b) modifications to existing projects where the proposed changes to the SCMs will not result
14 in compliance with MDC; and
15 (c) projects that are not in compliance with a current stormwater permit.

16 (2) ~~LICENSED PROFESSIONAL ENGINEER, PROFESSIONAL.~~ Fast-track projects shall retain a
17 ~~Professional Engineer licensed professional~~ of record for the entire duration of the project from
18 initial design and application submittal to Division approval or denial of the as-built plans per Rule
19 .1044 of this Section. As used in this Rule, "licensed professional" shall have the same meaning as
20 in Rule .1050 of this Section.

21 (3) **APPLICATION SUBMITTAL REQUIREMENTS.** The applicant shall submit a permit application
22 fee in accordance with G.S. 143-215.3D and two signed hard copies ~~[with original signatures]~~ and
23 one electronic copy of each of the following:

24 (a) a completed and signed Fast-Track Process Application Form. This form ~~can~~ may be
25 obtained on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater> and shall
26 include the following information:

- 27 (i) current project name and previous project name, if applicable;
28 (ii) information about the physical location of project;
29 (iii) stormwater project number, if assigned;
30 (iv) information about applicability of other State and federal environmental permits
31 to the project including CAMA Major Development Permits, NPDES,
32 ~~Sedimentation and Erosion~~ and Sedimentation Control Plan, Plans, and Section
33 ~~404/401 permits;~~ 401 of the Clean Water Act (33 U.S.C. 1341) permits;
34 (v) applicant name, ~~address~~ address, and contact information; ~~and~~
35 (vi) owner name, ~~address~~ address, and contact ~~information.~~ information; and
36 (vii) certification of financially responsible owner.

37 (b) when the applicant is a corporation or a limited liability corporation (LLC):

- (i) documentation showing the corporation or LLC is an active corporation in good standing with the NC Secretary of State; and
- (ii) documentation from the NC Secretary of State or other official documentation showing the titles and positions held by the persons signed the application pursuant to ~~Rule .1040(4)~~ Item (1) of Rule .1040 of this Section;
- (c) when the applicant is not the property owner, a copy of lease agreements, affidavits, or other documents showing that the applicant has obtained legal rights to submit a stormwater permit application within the proposed project area;
- ~~(d) a completed and signed Financial Responsibility Ownership Form;~~
- ~~(e) a signed agreement that there will be a transferable operation and maintenance agreement initiated prior to completion of construction;~~
- ~~(f)(d)~~ a guaranty signed and notarized by the applicant and sealed by the ~~Professional Engineer~~ licensed professional attesting to the following:
- (i) ~~The the~~ design has been completed in accordance with the MDC;
- (ii) ~~The the~~ completed design ~~will meet~~ meets the MDC and that the percentage built-upon area that is the basis for the design ~~will~~ shall not be exceeded; and
- (iii) ~~The the~~ applicant ~~will~~ shall maintain a ~~Professional Engineer~~ licensed professional of record for the duration of the project who will prepare and certify the as-built package. If the applicant retains another ~~Professional Engineer~~ licensed professional before the project is complete, then the applicant shall provide an updated guaranty with the current ~~Professional Engineer's~~ licensed professional's seal; and seal. A licensed professional shall inform the Division if he is no longer associated with this project;
- ~~(iv) A Professional Engineer [licensed professional] shall inform the Division that he is no longer associated with this project;~~
- ~~(g)(e)~~ a ~~USGS~~ U.S. Geological Survey (USGS) map identifying the project location and the GPS coordinates for the project. Areas within the project that are subject to ~~SA~~, SA Waters, Outstanding Resource Waters (ORW) or High Quality Waters (HQW) stormwater requirements set forth in Rules .1019 and .1021 of this Section shall be shown on the map;
- ~~(h)(f)~~ a site plan depicting the boundary of the project or project phase currently being permitted, including the locations of stormwater control measures, streams, wetlands, and buffers; and
- ~~(i)(g)~~ a construction sequence that discusses how any future development on the project may be phased.
- (4) DIVISION REVIEW OF APPLICATIONS. The Division shall take one of the following actions within 30 days of the receipt of the application:
- (a) Notify the applicant that the project does not qualify for the fast track permitting process pursuant to Item (1) of this Rule. The applicant shall then follow the standard permitting

process in accordance with Rule .1042 of this Section;

(b) Notify the applicant that additional information is necessary for the Division to determine whether the project complies with this Section. The Division shall provide a list of the additional information required. The applicant shall have 30 ~~calendar~~ days to submit the additional information to the Division;

(c) Return the application if the required information listed in Item (3) of this Rule is not provided or if information the Division has requested per Sub-item (4)(b) of this Rule is not provided within 30 days. In this case, the applicant shall be required to resubmit a complete application with a new application fee; or

(d) Issue an authorization to construct permit; or

(e) Deny the application in accordance with Rule .1040 of this Section.

(5) EXPIRATION OF THE AUTHORIZATION TO CONSTRUCT PERMIT. The authorization to construct permit shall expire five years after the date of issuance.

History Note: Authority G.S. 143.214.7; 143-214.7B; 143-215.1; 143-215.3(a); S.L. 2013-82; Eff. January 1, 2017.

1 15A NCAC 02H .1044 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1044 FAST TRACK PERMITTING PROCESS: FINAL PERMIT**

4 The purpose of this Rule is to set forth the Fast-Track Stormwater permitting process from the approval of the
5 Authorization to Construct Permit to the approval of the Final Fast-Track Permit.

6 (1) CONSTRUCTION REQUIREMENTS. ~~Engineering~~ Technical design documents shall be
7 available upon request by the Division.

8 (2) PROJECT COMPLETION. Approval of the as-built stormwater plans shall be required before the
9 ~~Sedimentation and Erosion~~ and Sedimentation Control Plan for the project may be closed out.

10 (3) AS-BUILT PACKAGE SUBMITTAL. The applicant shall submit a permit application fee in
11 accordance with G.S. 143-215.3D and an as-built package within ~~30~~ 45 calendar days of completion
12 of the project. The as-built package shall include the following:

13 (a) an As-Built Certification Form signed and sealed by the ~~professional engineer~~ licensed
14 professional of record and signed by the applicant. As used in this Rule, "licensed
15 professional" shall have the same meaning as in Rule .1050 of this Section. This form

16 The As-Built Certification Form ~~can~~ may be obtained on the Division's website at
17 ~~<http://portal.ncdenr.org/web/4r/stormwater>~~ [http://deq.nc.gov/about/divisions/energy-](http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-program)
18 [mineral-land-resources/energy-mineral-land-permits/stormwater-program](http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permits/stormwater-program) and shall
19 include the following information:

- 20 (i) current project name and previous project name, if applicable;
21 (ii) information about the physical location of project;
22 (iii) stormwater project number, if assigned;
23 (iv) density of the entire project and each drainage area;
24 (v) information about applicability of other State and federal environmental permits
25 to the project including CAMA Major Development Permits, NPDES,
26 Sedimentation and Erosion Control Plan, and ~~Section 404/401~~ Section 401 of
27 the Clean Water Act (33 U.S.C. 1341) permits;
28 (vi) description of SCMs that were used on the project;
29 (vi) applicant name, ~~address~~ address, and contact information; and
30 (vii) owner name, ~~address~~ address, and contact information.

31 (b) signed, sealed, and dated as-built calculations for the SCMs and calculations of the project
32 density;

33 (c) when an SCM that has an MDC requiring evaluation of the SHWT or the soil infiltration
34 rate, the applicant shall include the signed, sealed, and dated soils report based on field
35 evaluation indicating the depth of SHWT within the footprint of the SCM, and a map of
36 the boring locations, and boring logs. When the MDC require determination of the
37 infiltration rate, the report shall include the soil type, infiltration rate, and method for

determining the infiltration rate. Soils infiltration shall be signed and sealed by a licensed professional;

(d) a location map with street names and SR numbers to the nearest intersection with 1, 2, or 3 digit road numbers, legend, and north arrow. This is not required to be to scale;

(e) signed, sealed, and dated plans of the entire site that are a minimum 22 by 34 inch in size and are at a legible scale. All plan packages shall include:

(i) project name, designer, and dates;

(ii) dimensioned project or project phase boundary with bearings and distances;

(iii) the boundaries of all surface waters, wetlands, regulatory flood zones, protected vegetated setbacks, and protected riparian buffers or a note on the plans that none exist; and

(iv) site layout showing all built-upon areas, maintenance access routes and easements, utility easements, drainage easements, public rights of way, stormwater collection systems, and SCMs at ultimate build-out. The information on stormwater collection systems shall include the locations of the inlets, outlets, pipes, and swales, as well as the inverts and diameters of pipes, excluding driveway culverts;

(f) signed, sealed, and dated as-built plan details of each SCM in both plan view at a scale of one inch equal to 30 feet or larger and cross-section. Other scales may be accepted if the scale is such that all details are legible on a copy. The as-built plan details shall include:

(i) dimensions, side slopes, and elevations with a benchmark for clean-out if appropriate;

(ii) all conveyance devices, including inlet devices, bypass structures, pretreatment areas, flow distribution devices, underdrain discharge points (if accessible), outlet devices, energy dissipater, and level spreader; and

(iii) specification sheets for materials used in the SCM, such as planting media, filter media, and aggregate.

(g) signed, sealed, and dated as-built planting plans for each stormwater wetland and bioretention cell (or typical) at a scale of one inch equals 20 feet or larger. The planting plan shall include:

(i) plant layout with species names and locations;

(ii) total number and sizes of all plant species; and

(iii) for stormwater wetlands, a delineation of planting zones;

(h) a copy of the signed, notarized, and recorded operation and maintenance ~~agreement~~ including an estimation of the maintenance cost; ~~agreement~~;

- 1 (i) a copy of the recorded documents, deed restrictions, and protective covenants limiting the
2 built-upon area so that it does not exceed the capacity of the SCM(s) or the built-upon area
3 thresholds;
- 4 (j) a copy of the recorded drainage easements; and
- 5 (k) if there is an increase in built-upon area or a change in SCM design from the permitted
6 plans, then the applicant shall explain the increase or change. The permit applicant ~~has~~
7 shall have the burden of providing sufficient evidence to ensure that the proposed system
8 complies with all applicable water quality standards and requirements.
- 9 (4) SITE INSPECTION. The Division may perform a site inspection of the project to ensure that the
10 as-built drawings are an accurate depiction of the stormwater management plan. The Division may
11 inspect the site either:
- 12 (a) before the final stormwater permit is issued by scheduling an inspection with the applicant.
13 If the applicant does not agree to the inspection date selected by the Division, then the
14 Division shall work with the applicant to schedule another inspection date; however, in this
15 case, the Division's deadline for action shall be modified pursuant to Item (5) of this Rule;
16 or
- 17 (b) after issuance of the final stormwater permit as part of the sediment and erosion control
18 plan close-out.
- 19 (5) DIVISION REVIEW OF THE AS-BUILT PACKAGE. Within 15 ~~calendar~~ days after receipt of
20 the as-built package or of additional or amended information, the Division shall notify the applicant
21 if additional information is necessary to determine compliance with this Section. The applicant
22 shall have 30 ~~calendar~~ days from the date of such notice to submit the required information to the
23 Division. If the as-built package is complete, then within 40 days after receipt of the as-built
24 package or 30 days after completion of a site inspection that has been rescheduled at the request of
25 the applicant, whichever date is later, the Division shall take any of the following actions:
- 26 (a) ~~Issue~~ issue the final permit pursuant to Rule .1040 of this Section;
- 27 (b) ~~Draft~~ draft a permit with special conditions in accordance with Item (6) of this Rule;
- 28 (c) ~~Initiate~~ initiate compliance and enforcement action in accordance with G.S. 143, Article
29 21; or
- 30 (d) ~~Deny~~ deny the permit pursuant to Rule .1040 of this Section.
- 31 (6) PERMIT WITH SPECIAL CONDITIONS. If the Division determines that the stormwater plan has
32 only minor deviations from the MDC, then it shall draft a permit with special conditions to bring
33 the project into compliance with the MDC. The Division shall provide the applicant with a draft of
34 the proposed permit and the applicant shall have 10 days to submit comments or concerns back to
35 the Division. After the draft permit is reviewed by the applicant, the Division shall issue a final
36 permit with special conditions that includes the following:

- 1 (a) a list of corrections to be made to the stormwater plan to bring the project into compliance
2 with the MDC; and
3 (b) a proposed schedule of compliance for meeting the MDC.
- 4 (7) COMPLIANCE. Applicants who fail to comply with the requirements of this Rule may be subject
5 to enforcement action as set forth in G.S. 143-215.3.
- 6 (8) EXCEPTIONS TO ABOVE TIMEFRAMES. If the Division fails to act within the timelines
7 specified in Item (5) of this Rule, the project shall be considered to be approved unless:
8 (a) the applicant does not agree to the inspection date proposed by the Division pursuant to
9 Sub-item (4)(a) of this Rule.
10 (b) the applicant agrees, in writing, to a longer period;
11 (c) the final decision is to be made pursuant to a public notice or hearing;
12 (d) the applicant fails to furnish information necessary for the Division's ~~decision~~; as set forth
13 in Items (3) and (5) of this Rule; or
14 (e) the applicant refuses the staff access to its records or premises for the purpose of gathering
15 information necessary for the Division's decision.

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17 *History Note: Authority 143.214.7; 143-214.7B; 143-215.1; 143-215.3; 143-215.3(a); 143-215.6A; 143-215.6B;*
18 *143-215.6C; S.L 2013-82;*
19 *Eff. January 1, 2017.*
20

1 15A NCAC 02H .1045 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1045 REQUIREMENTS FOR PERMIT TRANSFERS AND PERMIT RENEWALS**

4 This Rule contains the requirements for the transfer and renewal of State stormwater management permits that have
5 been issued by the Division, including those issued under the standard and fast-track permitting processes.

6 (1) CONDITIONS UNDER WHICH A PERMIT ~~MAY~~ SHALL BE TRANSFERRED. Permit
7 transfer applications shall be accepted by the Division under the following scenarios:

- 8 (a) upon the request of the current and proposed permittees;
- 9 (b) upon the request of a permitted declarant of a condominium or planned community to the
10 unit owners association, owners association, or other management entity identified in the
11 condominium or planned community's declaration in accordance with G.S. 143-
12 214.7(c2); or
- 13 (c) upon the request for a transfer without the consent of the permit holder to a successor-
14 owner of the property on which the permitted activity is occurring or will occur as
15 provided in G.S. 143-214.7(c5).

16 (2) PERMIT TRANSFER APPLICATION SUBMITTAL REQUIREMENTS. The applicant shall
17 submit a permit application fee in accordance with G.S. 143-215.3D and two signed hard copies
18 [~~with original signatures~~] and one electronic copy of each of the following:

- 19 (a) ~~A~~ a completed and signed Permit Transfer Application Form. This form ~~can~~ may be
20 obtained on the Division's website at ~~http://portal.ncdenr.org/web/4r/stormwater~~
21 http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-
22 permits/stormwater-program and shall include the following information:
- 23 (i) current stormwater permit number;
- 24 (ii) current project name;
- 25 (iii) current permittee name and contact information; and
- 26 (iv) proposed permittee name and contact information.
- 27 (b) ~~When~~ when the applicant is a corporation or limited liability corporation (LLC):
- 28 (i) Documentation showing the corporation or LLC for the proposed permittee is an
29 active corporation in good standing with the NC Secretary of State; and
- 30 (ii) Documentation from the NC Secretary of State or other official documentation,
31 showing the titles and positions held by the person who signed the application
32 pursuant to Rule .1040 of this Section;
- 33 (c) ~~Legal~~ legal documentation of the property transfer to a new owner;
- 34 (d) ~~A~~ a copy of a signed and notarized operation and maintenance ~~agreement;~~ agreement from
35 the proposed permittee;
- 36 (e) ~~A~~ a copy of the recorded deed restrictions and protective covenants where ~~required.~~
37 required by the permit. If the project has been built, documentation that the maximum

1 allowed per lot built-upon area or the maximum allowed total built-upon area has not been
2 ~~exceeded; exceeded. If the project has not been built, the new owner shall provide a signed~~
3 ~~agreement to submit final recorded deed restrictions and protective covenants; and~~

4 (f) ~~If~~ if the project has been built, signed, sealed, and dated letter from a licensed professional
5 stating that the stormwater management system has been inspected and that it has been
6 built and maintained in accordance with the approved ~~plans; and plans.~~

7 (g) ~~A copy of the recorded deed restrictions and protective covenants, where required by the~~
8 ~~permit. If the project has not been built, the new owner shall provide a signed agreement~~
9 ~~to submit final recorded deed restrictions and protective covenants.~~

10 (3) PERMIT RENEWAL APPLICATION SUBMITTAL REQUIREMENTS. Permittees shall submit
11 a permit renewal application to the Division a minimum of 180 days prior to the permit's
12 expiration date. The applicant shall submit a permit application fee in accordance with G.S. 143-
13 215.3D and two signed hard copies ~~[with original signatures]~~ and one digital electronic copy of
14 each of the following:

15 (a) ~~A~~ a completed and signed Permit Renewal Application Form. This form can be obtained
16 on the Division's website at <http://portal.ncdenr.org/web/lr/stormwater> and shall include
17 the following information:

- 18 (i) project name and stormwater permit number;
19 (ii) permittee name and contact information;
20 (iii) owner name, title, and contact information;
21 (iv) information about the physical location of project;
22 (v) description of SCMs used on the project; and
23 (vi) if applicable, description of any changes made to the project as permitted.

24 (b) ~~When~~ when the applicant is a corporation or limited liability corporation (LLC):

- 25 (i) Documentation showing the corporation of LLC is an active corporation in good
26 standing with the NC Secretary of State; and
27 (ii) Documentation from the NC Secretary of State or other official documentation,
28 showing the titles and positions held by the person who signed the application
29 pursuant to Rule .1040 of this Section.

30 (c) ~~Documentation~~ documentation that the maximum allowed per lot built-upon area or the
31 maximum allowed total built-upon area has not been exceeded;

32 (d) ~~A~~ a signed, sealed, and dated letter from a licensed professional stating that the stormwater
33 management system has been inspected and that it has been built and maintained in
34 accordance with the approved plans;

35 (e) ~~A~~ a copy of the current signed and notarized operation and maintenance agreement where
36 required by the permit;

- (f) ~~A~~ a copy of the recorded deed restrictions and protective covenants, where required by permit; and
- (g) ~~If~~ if the project is out of compliance with permit conditions, a written schedule of actions to bring the project into compliance.
- (4) DIVISION REVIEW OF APPLICATIONS. The Division shall follow these procedures in reviewing and approving applications for permit transfers and renewals.
- (a) The Division shall take one of the following actions upon receipt of the application:
- (i) ~~Notify~~ notify the applicant that the application is incomplete, and specify the additional information is necessary required as set forth in Items (2) or (3) of this Rule for the Division to determine whether the project complies with this Section. The Division shall provide a list of the additional information required. The applicant shall have 30 ~~calendar~~ days from the date the letter was sent to submit the additional information to the Division;
- (ii) ~~Return~~ return the application if the required information listed in Items (2) or (3) of this Rule is not provided or if information the Division has requested per Sub-item (i) of Sub-item (4)(a) is not provided. In this case, the application shall be deemed denied, and the applicant shall be required to resubmit a complete application with a new application fee; or
- (iii) ~~Issue~~ issue an updated permit in accordance with this Section if the application is complete and the project is in compliance with its permit conditions and approved plans.
- (b) ~~The Division may conduct investigations about the project when the information provided appears to be inadequate or incorrect.~~ The applicant shall allow the Division safe access to the records, lands, and facilities of the applicant. The Division may conduct any inquiry or investigation it considers necessary before acting on an application and may require an applicant to submit plans, specifications, and other information the Division considers necessary to evaluate the application.
- (c) If the Division fails to act within the response times set forth by G.S. 143-215.1, then the application shall be considered approved unless:
- (i) ~~The~~ the applicant agrees, in writing, to a longer period;
- (ii) ~~The~~ the project being transferred or renewed is out of compliance with the stormwater permit;
- (iii) ~~A~~ a public notice or public hearing is required by the Director;
- (iv) ~~The~~ the applicant fails to furnish information necessary for the Division's decision in accordance with this Rule; or
- (v) ~~The~~ the applicant refuses the staff access to its records or premises for the purpose of gathering information necessary for the Division's decision.

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*History Note: Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a);
Portions of this Rule were previously codified in 2H .1003;
Eff. January 1, 2017.*

1 15A NCAC 02H .1050 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

3 **15A NCAC 2H .1050 MDC FOR ALL STORMWATER CONTROL MEASURES**

4 The purpose of this Rule is to set forth the design requirements for all Stormwater Control Measures (SCMs) that are
5 constructed to meet the requirements of this Section. These Minimum Design Criteria (MDC) are required for every
6 SCM. ~~SCMs are also required to~~ shall adhere to the MDC associated with the specific type of SCM being
7 implemented.

8 (1) SIZING. The design volume of SCMs shall take into account the runoff at build out from all
9 surfaces draining to the system. Drainage from off-site areas may be bypassed. The combined
10 design volume of all SCMs on the project shall be sufficient to handle the required ~~treatment volume.~~
11 storm depth.

12 ~~(2) SEASONAL HIGH WATER TABLE (SHWT). SCMs shall not include an outlet structure that is~~
13 ~~more than 6" below the SHWT elevation unless it can be demonstrated that the device will not~~
14 ~~dewater waters of the State and that the treatment volume of the SCM will not be compromised by~~
15 ~~groundwater inflow.~~

16 ~~(3)~~(2) CONTAMINATED SOILS. SCMs that allow stormwater to infiltrate shall not be located on or in
17 areas with contaminated soils.

18 ~~(4)~~(3) SIDE SLOPES. Side slopes of SCMs stabilized with vegetated cover shall be no steeper than 3:1
19 (horizontal to vertical). Retaining walls, gabion walls, and other engineered surfaces may be steeper
20 than 3:1. Steeper vegetated slopes may be ~~considered~~ accepted on a case-by-case basis if the
21 applicant demonstrates that the soils and vegetation shall remain stable.

22 ~~(5)~~(4) EROSION PROTECTION. The inlets ~~and outlets of~~ SCMs shall be ~~protected~~ designed to protect
23 the SCM from erosion resulting from stormwater discharges. The outlets of SCMs shall be designed
24 so that they do not cause erosion [immediately] downslope of the discharge point during the peak
25 flow from the 10-year storm event as shown by engineering calculations.

26 ~~(6)~~(5) EXCESS FLOWS. SCMs shall include an overflow or bypass device for inflow volumes in excess
27 of the treatment volume, or, if applicable, the peak attenuation volume.

28 ~~(7)~~(6) DEWATERING. SCMs shall have a method to draw down any standing water to facilitate
29 maintenance and inspection.

30 ~~(8)~~(7) CLEAN OUT AFTER CONSTRUCTION. Every SCM impacted by sedimentation and erosion
31 control during the construction phase shall be cleaned out and converted to its approved design state.

32 ~~(9)~~(8) MAINTENANCE ACCESS. Every SCM installed pursuant to this Section shall be made accessible
33 for maintenance and repair. Maintenance accesses shall:

- 34 (a) have a minimum width of ten feet;
- 35 (b) not include lateral or incline slopes that exceed 3:1 (horizontal to vertical); and
- 36 (c) extend to the nearest public right-of-way.

37 ~~(10)~~(9) EASEMENTS. All SCMs and associated maintenance accesses on privately owned land except for

those located on single family residential lots shall be located in permanent recorded easements. The SCM shall be shown and labeled within the easement. These easements shall be granted in favor of the party responsible for enforcing the stormwater program under which the SCMs were approved.

~~(11)~~(10) SINGLE FAMILY RESIDENTIAL LOTS. Plats for residential lots that contain an SCM shall include:

- (a) the specific location of the SCM on the lot;
- (b) a typical detail for SCM to be used; and
- (c) a note that the SCM on the property has been required to meet stormwater regulations and that the property owner may be subject to enforcement ~~actions~~ procedures as set forth in G.S. 143, Article 21 if the SCM is removed, relocated, or altered without prior approval.

~~(12)~~(11) OPERATION AND MAINTENANCE AGREEMENT. The owner of the SCMs shall enter into a ~~binding~~ Operation and Maintenance (O&M) Agreement with the party responsible for implementing the stormwater program under which the SCMs were approved. The O&M Agreement shall require the owner to maintain, repair, or reconstruct the SCMs in accordance with the approved design plans and the O&M Plan. The O&M Agreement shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. If no subdivision plat is recorded for the site, then the O&M Agreement shall be recorded with the county Register of Deeds so as to appear in the chain of title of all subsequent purchasers.

~~(13)~~(12) OPERATION AND MAINTENANCE PLAN. There shall be an O&M Plan for every project subject to this ~~Section~~ Rule. The O&M Plan shall specify all operation and maintenance work necessary for the function of all SCM components, including the stormwater conveyance system, perimeter of the device, inlet(s), pretreatment measures, main treatment area, outlet, vegetation, and discharge point. The O&M plan shall specify methods to be used to maintain or restore the SCMs to design specifications in the event of failure. O&M plans shall be signed by the owner and notarized. The owner shall keep maintenance records and these shall be available upon request by the party responsible for enforcing the stormwater program under which the SCMs were approved.

~~(14)~~(13) SCM SPECIFIC MINIMUM DESIGN CRITERIA (MDC). Every SCM shall follow the applicable device specific MDC pursuant to Rules .1051 through .1062 of this Section.

~~(15)~~(14) LICENSED PROFESSIONAL. SCMs shall be designed by an individual who meets the North Carolina professional licensing requirements ~~for~~ that demonstrate a competence to design the type of stormwater system proposed.

(15) NEW STORMWATER TECHNOLOGIES. Applicants shall have the option to request Division approval of new stormwater technologies and associated MDC. The applicant shall submit to the Division the standards for siting, site preparation, design, construction, and maintenance of the stormwater technology as well as research studies demonstrating that the stormwater technology functions in perpetuity and is equally or more protective of water quality than the requirements of

1 this Section. [Division approval shall be based on engineering calculations and research studies
2 demonstrating that the new technology functions in perpetuity and is equally or more protective of
3 water quality than the requirements of this Section.] In accordance with G.S. 143-215.1 and 143-
4 215.3, the Commission may delegate the review and approval of new stormwater technologies to
5 Division staff and the Commission or its designee may request additional information deemed
6 necessary to evaluate the stormwater technology. If the Commission or its designee deems that the
7 applicant has demonstrated that the new stormwater technology shall be the same or more protective
8 than the requirements of this Section, then the Division shall approve the use of the new stormwater
9 technology to satisfy the requirements of this Section.

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14 *History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);*
15 *Eff. January 1, 2017.*

1 15A NCAC 02H .1052 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 2H .1052 MDC FOR BIORETENTION CELLS**

4 The purpose of this Rule is to set forth the design requirements for bioretention cells that are constructed to meet the
5 requirements of this Section.

- 6 (1) SEPARATION FROM THE SHWT. The lowest point of the bioretention cell shall be a minimum
7 of two feet above the SHWT. However, the separation may be reduced to no less than one foot if
8 the applicant provides a hydrogeologic evaluation prepared by a licensed professional.
- 9 (2) MAXIMUM PONDING DEPTH FOR DESIGN VOLUME. The maximum ponding depth for the
10 design volume shall be 12 inches above the planting surface.
- 11 (3) PEAK ATTENUATION VOLUME. Bioretention cells may store peak attenuation volume at a
12 depth of up to 24 inches above the planting surface. The peak attenuation outlet shall be a maximum
13 of 18 inches above the planting surface.
- 14 (4) UNDERDRAIN. An underdrain with internal water storage shall be installed unless a licensed
15 professional demonstrates that the in-situ soil infiltration rate is two inches per hour or greater
16 ~~immediately~~ prior to the initial placement of the media. The top of the internal water storage zone
17 shall be set at a minimum of 18 inches below the planting surface.
- 18 (5) MEDIA DEPTH. The minimum depth of the media depends on the design of the cell as follows:
- 19 (a) all cells with trees and shrubs: 36 inches;
- 20 (b) cells without trees and shrubs:
- 21 (i) with no internal water storage: 24 inches; or
- 22 (iii) with internal water storage: 30 inches.
- 23 (6) MEDIA MIX. The media shall be a homogeneous ~~soil mix~~ engineered media blend with
24 approximate volumes of:
- 25 (a) 75 to 85 percent medium to coarse washed sand (ASTM ~~C33~~ C33, AASHTO M 6/M 80,
26 ASTM C330, AASHTO M195, or the equivalent); ~~equivalent~~);
- 27 (b) 8 to 10 percent fines (silt and clay); ~~clay~~; and
- 28 (c) 5 to 10 percent organic matter (such as pine bark fines).
- 29 (7) MEDIA P-INDEX. The phosphorus index (P-index) for the media shall not exceed 30 in ~~NSW~~
30 ~~waters~~ Nutrient Sensitive Waters (NSW) as defined in 15A NCAC 02B .0202 and shall not exceed
31 50 elsewhere.
- 32 (8) NO MECHANICAL COMPACTION. The media shall not be mechanically compacted. It is
33 recommended to either water it or walk on it as it is placed.
- 34 (9) MAINTENANCE OF MEDIA. The bioretention cell shall be maintained in a manner that results
35 in a drawdown of at least one inch per hour at the planting surface.
- 36 (10) PLANTING PLAN. For bioretention cells with vegetation other than sod, the planting plan shall
37 be designed to achieve a minimum of 75 percent plant coverage at five years after planting. The

1 maximum coverage with tree or shrub canopy shall be 50 percent at five years after planting. If sod
2 is used, then it shall be a non-clumping, deep-rooted species.

3 (11) MULCH. For bioretention cells with vegetation other than sod, triple shredded hardwood mulch
4 shall be used for the portion of the cell that will be inundated. Mulch shall be uniformly placed two
5 to four inches deep.

6 (12) CLEAN-OUT PIPES. A minimum of one clean-out pipe shall be provided on each underdrain line.
7 Clean out pipes shall be capped.

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9 *History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);*
10 *Eff. January 1, 2017.*

1 15A NCAC 02H .1053 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 2H .1053 MDC FOR WET PONDS**

4 The purpose of this Rule is to set forth the design requirements for wet ponds that are constructed to meet the
5 requirements of this Section.

6 (1) MAIN POOL SURFACE AREA AND VOLUME. The main pool of the wet pond shall be sized
7 using either:

8 (a) the Hydraulic Retention Time (HRT) Method; or

9 (b) the SA/DA and Average Depth Method.

10 (2) MAIN POOL DEPTH. The average depth of the main pool shall be three to eight feet below the
11 permanent pool elevation. ~~Any~~ The applicant shall have the option of excluding the submerged
12 portion of the vegetated shelf that is submerged may be excluded from the calculation of average
13 depth.

14 (3) SEDIMENT STORAGE. The forebay and main pool shall have a minimum sediment storage depth
15 of six inches.

16 ~~(3)(4)~~ LOCATION OF INLET(S) AND OUTLET. The inlet(s) and outlet shall be located in a manner
17 that avoids short circuiting.

18 ~~(4)(5)~~ FOREBAY. A forebay that meets the following specifications shall be included;

19 (a) Forebay volume shall be 15 to 20 percent of the volume in the main pool;

20 ~~(b) The forebay shall be 40 to 60 inches in depth with respect to the permanent pool;~~

21 ~~(c)(b)~~ The forebay entrance shall be deeper than the forebay exit;

22 ~~(d)(c)~~ The water flowing over or through the structure that separates the forebay from the main
23 pool shall flow at a nonerosive velocity; and

24 ~~(e)(d)~~ If sediment accumulates in the forebay in a manner that reduces its depth to 30 inches, less
25 than 75 percent of its design depth, then the forebay shall be cleaned out and returned to
26 its design state.

27 ~~(5)(6)~~ VEGETATED SHELF. The main pool shall be equipped with a vegetative shelf around its
28 perimeter. The minimum width of the vegetated shelf shall be six feet and the slope shall be no
29 steeper than 6:1 (horizontal to vertical).

30 ~~(6)(7)~~ DRAWDOWN TIME. The ~~treatment~~ design volume shall draw down to the permanent pool level
31 between two and five days.

32 ~~(7)(8)~~ PROTECTION OF THE RECEIVING STREAM. The wet pond shall discharge the runoff from
33 the one-year, 24-hour storm in a manner that minimizes hydrologic impacts to the receiving channel.

34 ~~(8)(9)~~ FOUNTAINS. If fountains are proposed, then a licensed professional shall provide documentation
35 that they will not cause a resuspension of sediment within the pond, or cause erosion on the side
36 slopes of the pond.

37 ~~(9)(10)~~ TRASH RACK. A trash rack or other device shall be provided to prevent large debris from entering

the outlet system.

~~(10)~~(11) VEGETATION. The following criteria apply to vegetation in and around the wet pond:

- (a) The dam ~~structure~~ structure, including front and back embankment slopes, ~~and fill material around the perimeter~~ of the pond shall be vegetated with non-clumping turf grass; trees and woody shrubs shall not be allowed; and
- (b) The vegetated shelf shall be ~~vegetated~~ planted with a minimum of three diverse species of herbaceous, native ~~vegetation, and vegetation~~ at a minimum density of 50 plants per 200 square feet of shelf ~~area shall be planted. area.~~

*History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);
Eff. January 1, 2017.*

1 15A NCAC 02H .1054 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 2H .1054 MDC FOR STORMWATER WETLANDS**

4 The purpose of this Rule is to set forth the design requirements for stormwater wetlands that are constructed to meet
5 the requirements of this Section.

- 6 (1) TEMPORARY PONDING DEPTH. The ponding depth for the design volume shall be a maximum
7 of 15 inches above the permanent pool.
- 8 (2) PEAK ATTENUATION DEPTH. The wetland may be designed to temporarily pond peak
9 attenuation volume at a depth exceeding 15 inches.
- 10 (3) SURFACE AREA. The surface area shall be sufficient to limit the ponding depth to 15 inches or
11 less. The surface area specifications in Items (6) through (9) of this Rule are based on the wetland
12 at its temporary ponding depth.
- 13 (4) SOIL AMENDMENTS. The pH, compaction, and other attributes of the first 12-inch depth of the
14 soil shall be adjusted if necessary to promote plant establishment and growth.
- 15 (5) LOCATION OF INLET(S) AND OUTLET. The inlet(s) and outlet shall be located in a manner
16 that avoids short circuiting.
- 17 (6) FOREBAY. A forebay shall be provided at the inlet to the stormwater wetland. The forebay shall
18 comprise 10 to 15 percent of the wetland surface area. The forebay depth shall be 24 to 40 inches
19 below the permanent pool elevation. The forebay entrance shall be deeper than the forebay exit. If
20 sediment accumulates in the forebay in a manner that reduces its depth to 15 inches, then the forebay
21 shall be cleaned out and returned to its design state.
- 22 (7) NON-FOREBAY DEEP POOLS. Deep pools shall be provided throughout the wetland and
23 adjacent to the outlet structure to prevent clogging. The non-forebay deep pools shall comprise 5
24 to 15 percent of the wetland surface area and shall be designed to retain water between storm events.
25 The deep pools at their deepest points shall be at least 18 inches below the permanent pool elevation.
- 26 (8) SHALLOW WATER ZONE. The shallow water zone shall comprise 35 to 45 percent of the
27 wetland surface area. The shallow water zone shall be zero to nine inches below the permanent pool
28 elevation.
- 29 (9) TEMPORARY INUNDATION ZONE. The temporary inundation zone shall comprise 30 to 45
30 percent of the wetland surface area. The temporary inundation zone shall be between 0 and 15
31 inches above the permanent pool elevation.
- 32 (10) DRAWDOWN TIME. The ~~treatment~~ design volume shall draw down to the permanent pool level
33 between two and five days.
- 34 (11) PROTECTION OF THE RECEIVING STREAM. The wetland shall discharge the runoff from the
35 one-year, 24-hour storm in a manner that minimizes hydrologic impacts to the receiving channel.
- 36 (12) LANDSCAPING PLAN. A landscape plan prepared by a licensed professional shall be provided
37 and shall include the following:

- 1 (a) delineation of planting zones;
2 (b) plant layout with species names and locations; and
3 (c) total number and sizes of all plant species.
- 4 (13) SHALLOW WATER PLANTINGS. The shallow water zone shall be planted with a minimum of
5 three diverse species of herbaceous, native vegetation at a minimum density of 50 ~~herbaceous~~ plants
6 per 200 square feet (equivalent to 2 foot on center spacing).
- 7 (14) TEMPORARY INUNDATION ZONE PLANTINGS. The temporary inundation zone shall be
8 planted according to one of the following options:
- 9 (a) a minimum of three diverse species of herbaceous, native vegetation at a minimum density
10 of 50 ~~herbaceous~~ plants per 200 square feet (equivalent to 2 foot on center spacing);
11 (b) a minimum of eight shrubs per 200 square feet (equivalent to 5 foot on center spacing); or
12 (c) a minimum of one tree and a minimum of 40 grass-like herbaceous plants per 100 square
13 feet.
- 14 (15) DAM STRUCTURE AND PERIMETER FILL SLOPES. On the dam structure and perimeter fill
15 slopes, non-clumping turf grass shall be ~~provided, and provided;~~ trees and woody shrubs shall not
16 be allowed.
- 17 (16) NO CATTAILS. Cattails shall not be planted in the wetland.
- 18 (17) TRASH RACK. A trash rack or other device to trap debris shall be provided on piped outlet
19 structures.
20

21 *History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);*
22 *Eff. January 1, 2017.*

1 15A NCAC 02H .1055 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 2H .1055 MDC FOR PERMEABLE PAVEMENT**

4 The purpose of this Rule is to set forth the design requirements for permeable pavement systems that are constructed
5 to meet the requirements of this Section.

6 (1) SOIL INVESTIGATION. For infiltrating pavement systems, site-specific soil investigation shall
7 be performed by a licensed professional to establish the hydraulic properties and characteristics
8 within the proposed footprint and at the proposed elevation of the permeable pavement system.

9 (2) SHWT REQUIREMENTS. The minimum separation between the lowest point of the subgrade
10 surface and the SHWT shall be:

11 (a) two feet for infiltrating pavement systems; however, the separation ~~can~~ may be reduced to
12 a minimum of one foot if the applicant provides a soils report prepared by a licensed
13 professional that demonstrates that the modified soil profile allows for infiltration of the
14 design volume within 72 hours; and

15 (b) one foot for detention pavement systems.

16 (3) SITING. Permeable pavement shall not be installed in areas where toxic pollutants are stored or
17 handled.

18 (4) SOIL SUBGRADE SLOPE. The soil subgrade surface shall have a slope of less than or equal to
19 two percent.

20 (5) STONE BASE. Washed aggregate base materials shall be used.

21 (6) PAVEMENT SURFACE. The proposed pavement surface shall have a demonstrated infiltration
22 rate of at least 50 inches per hour using a head less than or equal to 4 inches.

23 (7) RUNOFF FROM ADJACENT AREAS. Runoff to the permeable pavement from adjacent areas
24 shall meet these requirements:

25 (a) The maximum ratio of additional built-upon area that may drain to permeable pavement is
26 1:1. Screened rooftop runoff shall not be subject to the 1:1 loading limitation.

27 (b) Runoff from adjacent pervious areas shall be prevented from reaching the permeable
28 pavement except for incidental, unavoidable runoff from stable vegetated areas.

29 (8) DRAW DOWN TIME. Infiltrating permeable pavement systems shall be designed to dewater the
30 design volume to the bottom of the subgrade surface within 72 hours. In-situ soils may be removed
31 and replaced with infiltration media or infiltration media may be placed on top of in-situ soils if the
32 applicant provides a soils report prepared by a licensed professional that demonstrates that the
33 modified soil profile allows for infiltration of the design volume within 72 hours.

34 (9) OBSERVATION WELL. Permeable pavement shall be equipped with a minimum of one
35 observation well placed at the low point in the system. If the subgrade is terraced, then there shall
36 be one observation well for each terrace. Observation wells shall be capped.

37 (10) DETENTION SYSTEMS. Pavement systems may be designed to detain stormwater in the

1 aggregate for a period of two to five days.

2 (11) EDGE RESTRAINTS. Edge restraints shall be provided around the perimeter of permeable
3 interlocking concrete pavers (PICP) and concrete grid pavers.

4 (12) GRADE WHEN DRY. The soil subgrade for infiltrating permeable pavement shall be graded when
5 there is no precipitation.

6 (13) INSPECTIONS AND CERTIFICATION. After installation, permeable pavement shall be protected
7 from sediment deposition until the site is completed and stabilized. An in-situ infiltration
8 permeability test shall be conducted and certified by a licensed professional on the pavement after
9 site stabilization.

10
11 *History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);*
12 *Eff. January 1, 2017.*

1 15A NCAC 02H .1056 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 02H .1056 MDC FOR SAND FILTERS**

4 The purpose of this Rule is to set forth the design requirements sand filters that are constructed to meet the
5 requirements of a State post-construction stormwater program.

- 6 (1) SHWT SEPARATION. The minimum separation between the lowest point of the sand filter system
7 and the SHWT shall be:
8 (a) two feet for open-bottom designs; and
9 (b) one foot for closed bottom designs. Exceptions to the one foot SHWT separation may be
10 made if a licensed professional provides documentation that the design will neither float
11 nor drain the water table.
- 12 (2) TWO CHAMBER SYSTEM. The sand filter shall include a sediment chamber and a sand chamber.
13 ~~It is recommended to provide equivalent storage volume in each chamber.~~ Storage volume in each
14 chamber shall be equivalent.
- 15 (3) SEDIMENT/SAND CHAMBER SIZING. The volume of water that can be stored in the sediment
16 chamber and the sand chamber above the sand surface combined shall be 0.75 times the treatment
17 volume. The elevation of bypass devices shall be set above the ponding depth associated with this
18 volume. The bypass device may be designed to attenuate peak flows.
- 19 (4) MAXIMUM PONDING DEPTH. The maximum ponding depth from the top of the sand to the
20 bypass device shall be six feet.
- 21 (5) FLOW DISTRIBUTION. Incoming stormwater shall be evenly distributed over the surface of the
22 sand chamber.
- 23 (6) SAND MEDIA SPECIFICATION. Sand media shall meet ASTM C33 or the equivalent.
- 24 (7) MEDIA DEPTH. The filter bed shall have a minimum depth of 18 inches. The minimum depth of
25 sand above the underdrain pipe shall be 12 inches.
- 26 (8) MAINTENANCE OF MEDIA. The sand filter shall be maintained in a manner that results in a
27 drawdown of at least two inches per hour at the sand surface.
- 28 (9) CLEAN-OUT PIPES. At least one clean-out pipe shall be provided at the low point of each
29 underdrain line. Clean out pipes shall be capped.

30
31 *History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);*
32 *Eff. January 1, 2017.*

1 15A NCAC 02H .1057 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 2H .1057 MDC FOR RAINWATER HARVESTING**

4 The purpose of this Rule is to set forth the design requirements for rainwater harvesting systems that are constructed
5 to meet the requirements of this Section.

6 (1) MAJOR COMPONENTS OF A RAINWATER HARVESTING SYSTEM. Rainwater harvesting
7 systems shall include the following components:

- 8 (a) a collection system;
9 (b) a pre-treatment device to minimize gross and coarse solids collection in the tank;
10 (c) a cistern or other storage device;
11 (d) an overflow; and
12 (e) a distribution system.

13 (2) FATE OF CAPTURED WATER. Captured stormwater shall be used or discharged as follows:

- 14 (a) use to meet a water demand. The usage, type, volume, frequency, and seasonality of water
15 demand shall be established and justified;
16 (b) discharge ~~via~~ through a passive drawdown device to a vegetated infiltration area or another
17 SCM; or
18 (c) a combination of use and passive discharge.

19 (3) SIZING. A rainwater harvesting system shall be considered as a primary SCM if the system is sized
20 and water demand, passive ~~discharge~~ discharge, or a combination of the two is provided for ~~86%~~ 85
21 percent of the total annual runoff volume as demonstrated through water balance calculations.

22 (4) WATER BALANCE CALCULATIONS. The water balance shall be calculated using the NCSU
23 Rainwater Harvester ~~model~~ model, which is herein incorporated by reference, including subsequent
24 amendments and editions, and may be accessed at no cost at <https://stormwater.bae.ncsu.edu/>, or
25 another continuous-simulation hydrologic model that calculates the water balance on a daily or more
26 frequent time-step using a minimum of five representative years of actual rainfall records. The
27 model shall account for withdrawals from the cistern for use, active or passive drawdown, and
28 additions to the cistern by rainfall, ~~runoff~~ runoff, and a make-up water source if applicable.

29 (5) DISTRIBUTION SYSTEM. The distribution system shall be tested for functionality prior to the
30 completion of the rainwater harvesting system. The design shall include a protocol for testing the
31 functionality of the distribution system upon completion of the initial system and upon additions to
32 the existing system.

33 (6) SIGNAGE REQUIREMENTS. All harvested rainwater outlets such as spigots and hose bibs, and
34 appurtenances shall be labeled as “Non-Potable Water” to warn the public and others that the water
35 is not intended for drinking. Passive drawdown devices, when employed, shall be marked with
36 identifying signage or labels that are visible to owners and maintenance personnel.

1 *History Note:* *Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);*
2 *Eff. January 1, 2017.*

1 15A NCAC 02H .1058 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 2H .1058 MDC FOR GREEN ROOFS**

4 The purpose of this Rule is to set forth the design requirements for green roofs that are constructed to meet the
5 requirements of this Section.

- 6 (1) MEDIA SPECIFICATION. The maximum organic fraction of the media shall be ten percent by
7 volume.
- 8 (2) DESIGN VOLUME. The design volume for a green roof shall equal the media depth times the plant
9 available water (PAW). The maximum rainfall depth that may be treated by a green roof ~~is~~ shall be
10 1.5 inches.
- 11 (3) MINIMUM MEDIA DEPTH. The minimum media depth shall be four inches if the roof will not be
12 irrigated or three inches if the roof will be irrigated. For roofs with three-inch media depths, an
13 irrigation plan shall be included in the Operation and Maintenance Plan.
- 14 (4) VEGETATION SPECIFICATION. The planting plan shall be designed to achieve a 75 percent
15 vegetative cover within two years.
- 16 (5) SLOPE. The green roof shall have a slope (or pitch) of no greater than eight percent, ~~unless a~~
17 ~~container system designed for a greater slope is used.~~ percent.

18
19 *History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);*
20 *Eff. January 1, 2017.*

1 15A NCAC 02H .1059 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 2H .1059 MDC FOR LEVEL SPREADER-FILTER STRIPS**

4 The purpose of this Rule is to set forth the design requirements for level spreader-filter strips that are constructed to
5 meet the requirements of this Section.

- 6 (1) LEVEL SPREADER LENGTH. The level spreader shall be a minimum of 10 feet in length per one
7 cubic foot per second of stormwater flow that is directed to it.
- 8 (2) REQUIRED STORM INTENSITY AND BYPASS. The required storm intensity and bypass
9 system shall be based on the source of the stormwater:
- 10 (a) ~~A~~ a level spreader that receives flow directly from the drainage area shall be sized based
11 on the flow rate during the 0.75 inch per hour storm, with a flow bypass system for larger
12 storm events; or
- 13 (b) ~~A~~ a level spreader that receives flow from an SCM shall be sized based on the draw down
14 rate of the design volume, with a flow bypass for larger storm events.
- 15 (3) EXCEPTION FROM FLOW BYPASS REQUIREMENT. A flow bypass system ~~is~~ shall not be
16 needed if the level spreader is sized to handle the flow during 10-year storm event.
- 17 (4) BLIND SWALE. ~~Immediately upslope~~ Upslope of the level spreader, there shall be a blind swale
18 or other method of ponding water. The blind swale shall be designed to provide for uniform
19 overtopping of the level spreader.
- 20 (5) LEVEL SPREADER SPECIFICATIONS. The lip of the level spreader shall be at a uniform
21 elevation with a construction tolerance of plus or minus 0.25 inch at any point along its length. The
22 level spreader shall be constructed of concrete or other stable material.
- 23 (6) LEVEL SPREADER SHAPE. The level spreader shall be straight or convex in plan view.
- 24 (7) TRANSITION ZONE. ~~Immediately downslope~~ Downslope of the level spreader, there shall be a
25 one to three inch drop followed by a transition zone that ~~is~~ shall be protected from erosion ~~via~~ by
26 aggregate or high performance turf reinforcement matting. The transition zone shall be a minimum
27 of 12 inches wide.
- 28 (8) MINIMUM WIDTH OF THE FILTER STRIP. The minimum width of the filter strip shall be 30
29 feet, measured perpendicular to the level spreader lip.
- 30 (9) NO DRAWS OR CHANNELS IN THE FILTER STRIP. The filter strip shall not contain draws or
31 channels.
- 32 (10) FILTER STRIP SPECIFICATIONS. The following specifications shall apply to the filter strip:
- 33 (a) ~~Filter~~ filter strips shall be graded with a uniform transverse slope of eight percent or less;
- 34 (b) ~~The~~ the pH, compaction, and other attributes of the first 12 inches of the soil shall be
35 adjusted if necessary to promote plant establishment and ~~growth;~~ growth, as determined by
36 a licensed professional;
- 37 (c) ~~The~~ the filter strip and side slopes shall be planted with non-clumping, deep-rooted grass

1 sod; and
2 (d) ~~Soils~~ soils shall be stabilized with temporary means such as straw or matting until the
3 permanent vegetative cover has taken root or the runoff shall be directed elsewhere until
4 vegetation has established.

5
6 *History Note:* *Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);*
7 *Eff. January 1, 2017.*

1 15A NCAC 02H .1060 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 2H .1060 MDC FOR DISCONNECTED IMPERVIOUS SURFACES**

4 The purpose of this Rule is to set forth the design requirements for disconnected impervious surfaces that are
5 constructed to meet the requirements of this Section.

6 (1) VEGETATED RECEIVING AREA FOR DISCONNECTED ROOFS. The following requirements
7 shall apply to vegetated receiving areas for disconnected roofs:

- 8 (a) ~~A~~ a maximum of 500 square feet of roof shall drain to each disconnected downspout;
9 (b) ~~The the~~ receiving vegetated area shall be a rectangular shape. The length of the rectangle
10 in the direction of flow shall be a minimum of 0.04 times the area of the roof that drains to
11 it. The width of the rectangle shall be one-half the length of the rectangle.
12 (c) ~~The the~~ downspout shall discharge in the center of upslope end of the vegetated receiving
13 area;
14 (d) ~~The the~~ downspout shall be equipped with a splash pad; and
15 (e) ~~The the~~ vegetated receiving area shall not include any built-upon area.

16 (2) VEGETATED RECEIVING AREA FOR DISCONNECTED PAVEMENT. The following
17 requirements shall apply to the vegetated receiving area for disconnected pavement:

- 18 (a) ~~The the~~ pavement draining to the vegetated receiving area shall be a maximum of 100 feet
19 in length in the direction of flow;
20 (b) ~~The the~~ vegetated receiving area shall be a minimum of 10 feet in length in the direction
21 of flow; and
22 (c) ~~The the~~ vegetated receiving area shall not contain any built-upon area except for incidental
23 areas such as utility boxes, ~~signs~~ signs, and lamp posts.

24 (3) VEGETATED RECEIVING AREA SPECIFICATIONS. The following specifications shall apply
25 to the vegetated receiving areas for both disconnected roofs and disconnected pavement:

- 26 (a) ~~Vegetated~~ vegetated receiving areas shall have a uniform transverse slope of 8 percent or
27 less, except in Hydrologic Soil Group A soils where slope shall be 15 percent or less;
28 (b) The pH, compaction, and other attributes of the first eight inches of the soil shall be
29 adjusted if necessary to promote plant establishment and ~~growth~~; growth, as determined by
30 a licensed professional;
31 (c) ~~The the~~ vegetated receiving area shall be planted with a non-clumping, deep-rooted grass
32 species; and
33 (d) ~~Soils~~ soils shall be stabilized with temporary means such as straw or matting until the
34 permanent vegetative cover has taken root or the runoff shall be directed elsewhere until
35 vegetation has established.

36
37 *History Note: Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);*

1 15A NCAC 02H .1061 is adopted with changes as published in 30:16 NCR 1730-1803 as follows:

2
3 **15A NCAC 2H .1061 MDC FOR TREATMENT SWALES**

4 The purpose of this Rule is to set forth the design requirements for treatment swales that are constructed to meet the
5 requirements of this Section. Vegetated conveyances that are designed to convey stormwater from a project but are
6 not intended to remove pollutants [are] shall not be subject to this Rule, but instead shall meet the requirements of
7 Rule .1003(2)(c) of this Section.

- 8 (1) SHWT. Swales shall not be excavated below the SHWT.
- 9 (2) SHAPE. Swales shall be trapezoidal in cross-section with a maximum bottom width of six feet.
10 Side slopes stabilized with vegetative cover shall be no steeper than 3:1 (horizontal to vertical).
11 Steeper vegetated slopes may be ~~considered~~ accepted on a case-by-case basis provided that ~~it is~~
12 ~~demonstrated~~ the applicant demonstrates that the soils and vegetation will remain stable in
13 perpetuity based on engineering calculations.
- 14 (3) SWALE SLOPE AND LENGTH. The longitudinal swale slope shall not exceed seven percent.
15 The swale slope and length shall be designed to achieve a flow depth of six inches or less during the
16 0.75 inch per hour storm and a minimum hydraulic retention time of four minutes.
- 17 (4) GRASS SPECIFICATION. The grass species in the swale shall be:
- 18 (a) non-clumping and deep-rooted;
19 (b) able to withstand a velocity of four feet per second;
20 (c) managed at an average of six inches; and
21 (d) not be cut lower than four inches.
- 22 (5) CONVEYANCE OF LARGER STORMS. Swales shall be designed to non-erosively pass the ten-
23 year storm.

24
25 *History Note:* Authority G.S. 143-214.7B; 143-215.1; 143-215.3(a);
26 *Eff. January 1, 2017.*