SECTION .1000 - STORMWATER MANAGEMENT

15A NCAC 02H .1001 STORMWATER MANAGEMENT POLICY

The rules in this Section set forth the requirements for application and issuance of permits for stormwater management systems in accordance with G.S. 143-215.1(d) and 15A NCAC 2H .0200. These requirements to control pollutants associated with stormwater runoff apply to development of land for residential, commercial, industrial, or institutional use but do not apply to land management activities associated with agriculture or silviculture unless specifically addressed in special supplemental classifications and management strategies adopted by the Commission.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1);*
Eff. January 1, 1988;
Amended Eff. September 1, 1995.

15A NCAC 02H .1002 DEFINITIONS

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

(1) "Built-upon Area" means that portion of a development project that is covered by impervious or partially impervious cover including buildings, pavement, gravel roads and parking areas, recreation facilities (e.g., tennis courts), etc. (Note: Wooden slatted decks and the water area of a swimming pool are considered pervious).

(2) "CAMA Major Development Permits" mean those permits or revised permits required by the Coastal Resources Commission according to 15A NCAC 7J Sections .0100 and .0200.

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

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

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

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

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

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

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

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

(11) "Notice of Intent" means a written notification to the Division that an activity or discharge is intended to be covered by a general permit and takes the place of "application" used with individual permits.

(12) "Off-site Stormwater Systems" mean stormwater management systems that are located outside the boundaries of the specific project in question, but designed to control stormwater drainage from that project and other potential development sites. These systems shall designate responsible parties for operation and maintenance and may be owned and operated as a duly licensed utility or by a local government.

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

(14) "Redevelopment" means any rebuilding activity which has no net increase in built-upon area or which provides equal or greater stormwater control than the previous development (stormwater controls shall not be allowed where otherwise prohibited).

(15) "Seasonal High Water Table" means the highest level that groundwater, at atmospheric pressure, reaches in the soil in most years. The seasonal high water table is usually detected by the mottling of the soil that results from mineral leaching.

(16) "Sedimentation/Erosion Control Plan" means any plan, amended plan or revision to an approved plan submitted to the Division of Land Resources or delegated authority in accordance with G.S. 113A-57.

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

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

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

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

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

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

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

History Note: *Authority G.S. 143-213; 143-214.1; 143-214.7; 143-215.3(a)(1);*
Eff. January 1, 1988;
Amended Eff. December 1, 1995; September 1, 1995.

15A NCAC 02H .1003 STORMWATER MANAGEMENT: COVERAGE: APPLICATION: FEES

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

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

(1) development activities located in the 20 coastal counties as defined in Rule .1002(4) of this Section;

(2) development activities draining to Outstanding Resource Waters (ORW) as defined in 15A NCAC 2B .0225; or

(3) development activities within one mile of and draining to High Quality Waters (HQW) as defined in 15A NCAC 2B .0101(e)(5).

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

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

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

(1) Low Density Projects: Projects permitted as low density projects must be designed to meet and maintain the applicable low density requirements specified in Rules .1005 through .1007 of this Section. The Division shall review project plans and assure that density levels meet the applicable low density requirements. The permit shall require recorded deed restrictions and protective covenants to ensure development activities maintain the development consistent with the plans and specifications approved by the Division.

(2) High Density Projects: Projects permitted as high density projects must be designed to meet the applicable high density requirements specified in Rules .1005 through .1007 of this Section with stormwater control measures designed, operated and maintained in accordance with the provisions of this Section. The permit shall require recorded deed restrictions and protective covenants to ensure development activities maintain the development consistent with the plans and specifications approved by the Division. Stormwater control measures and operation and maintenance plans developed in accordance with Rule .1008 of this Section must be approved by the Division. In addition, NPDES permits for stormwater point sources may be required according to the provisions of 15A NCAC 2H .0126.

(3) Other Projects: Development may also be permitted on a case-by-case basis if the project:
   (A) controls runoff through an off-site stormwater system meeting provisions of this Section;
   (B) is redevelopment which meets the requirements of this Section to the maximum extent practicable;
   (C) otherwise meets the provisions of this Section and has water dependent structures, public roads and public bridges which minimize built-upon surfaces, divert stormwater away from surface waters as much as possible and employ other best management practices to minimize water quality impacts.

(4) Director's Certification: Projects may be approved on a case-by-case basis if the project is certified by the Director that the site is situated such that water quality standards and uses are not threatened and the developer demonstrates that:
   (A) the development plans and specifications indicate stormwater control measures which shall be installed in lieu of the requirements of this Rule; or
   (B) the development is located such a distance from surface waters that impacts from pollutants present in stormwater from the site shall be effectively mitigated.

(5) General Permits: Projects may apply for permit coverage under general permits for specific types of activities. The Division shall develop general permits for these activities in accordance with Rule .1013 of this Section. General Permit coverage shall be available to activities including, but not limited to:
   (A) construction of bulkheads and boat ramps;
   (B) installation of sewer lines with no proposed built-upon areas;
   (C) construction of an individual single family residence; and
   (D) other activities that, in the opinion of the Director, meet the criteria in Rule .1013 of this Section.

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

(e) Applications: Any person with development activity meeting the criteria of Paragraph (b) of this Rule shall apply for permit coverage through the Division. Previously issued Stormwater Certifications (issued in accordance with stormwater management rules effective prior to September 1, 1995) revoked due to certification violations must apply for permit coverage. Stormwater management permit applications, project plans, supporting information and 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 specifications for stormwater management measures associated with each individual lot or property within the project.

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

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1(d); 143-215.3(a)(1);*
Eff. January 1, 1988;
Amended Eff. December 1, 1995; September 1, 1995.

15A NCAC 02H .1004 STATEWIDE STORMWATER GUIDELINES

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.8A;*
Eff. January 1, 1988;
Repealed Eff. September 1, 1995.

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

See Amended Rule 2H .1005

15A NCAC 02H .1006 STORMWATER REQUIREMENTS: HIGH QUALITY WATERS

All development activities which require a stormwater management permit under Rule .1003 of this Section and are within one mile of and draining to waters classified as High Quality Waters (HQW) shall manage stormwater runoff in accordance with the provisions outlined in this Rule. More stringent stormwater management measures may be required on a case-by-case basis where it is determined that additional measures are required to protect water quality and maintain existing and anticipated uses of these waters.

(1) All waters classified as WS-I or WS-II (15A NCAC 2B .0212 and .0214) and all waters located in the coastal counties (Rule .1005 of this Section) are excluded from the requirements of this Rule since they already have requirements for stormwater management.

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

(a) built-upon area of 12 percent or less or proposes single family residential development on lots of one acre or greater;
(b) stormwater runoff transported primarily by vegetated conveyances; conveyance system shall not include a discrete stormwater collection system as defined in Rule .1002 of this Section;
(c) a 30 foot wide vegetative buffer.

(3) High Density Option: Higher density developments shall be permitted pursuant to Rule .1003(c)(2) of this Section if stormwater control systems meet the following criteria:
(a) control systems must be wet detention ponds or alternative stormwater management systems designed in accordance with Rule .1008 of this Section;
(b) control systems must be designed to control runoff from all surfaces generated by one inch of rainfall.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a);*
Eff. September 1, 1995;
Amended Eff. December 1, 1995.

15A NCAC 02H .1007 STORMWATER REQUIREMENTS: OUTSTANDING RESOURCE WATERS

All development activities which require a stormwater management permit under Rule .1003 of this Section and which drain to waters classified as Outstanding Resource Waters (ORW) shall manage stormwater runoff in accordance with the provisions of this Rule. Water quality conditions shall clearly maintain and protect the outstanding resource values of waters classified as Outstanding Resource Waters (ORW). Stormwater management strategies to protect resource values of waters classified as ORW shall be developed on a site specific basis during the proceedings to classify these waters as ORW. The requirements of this Rule serve as the minimum conditions that must be met by development activities. More stringent stormwater management measures may be required on a case-by-case basis where it is determined that additional measures are required to protect water quality and maintain existing and anticipated uses of these waters.

(1) Freshwater ORWs: Development activities which require a stormwater management permit under Rule .1003 of this Section and which drain to freshwaters classified as ORW shall manage stormwater runoff as follows:
(a) Low Density Option: Development shall be permitted pursuant to Rule .1003(d)(1) of this Section if the development has:
(i) built-upon area of 12 percent or less or proposes single family residential development on lots of one acre or greater;
(ii) stormwater runoff transported primarily by vegetated conveyances; conveyance system shall not include a discrete stormwater collection system as defined in Rule .1002 of this Section; and
(iii) a 30 foot wide vegetative buffer.
(b) High Density Option: Higher density developments shall be permitted pursuant to Rule .1003(d)(2) of this Section if stormwater control systems meet the following criteria:
(i) control systems must be wet detention ponds or alternative stormwater management systems designed in accordance with Rule .1008 of this Section; and
(ii) control systems must be designed to control runoff from all surfaces generated by one inch of rainfall.

(2) Saltwater ORWs: Development activities which require a stormwater management permit under Rule .1003 of this Section and which drain to saltwaters classified as ORW shall manage stormwater runoff as follows:
(a) Within 575 feet of the mean high water line of designated ORW areas, development activities shall comply with the low density option as specified in Rule .1005(2)(a) of this Section.
(b) Projects draining to saltwaters classified as ORW that impact the Areas of Environmental Concern (AEC), determined pursuant to G.S. 113A-113, shall delineate the ORW AEC on the project plans and conform to low density requirements as specified in Rule .1005(2)(a) of this Section within the ORW AEC.
(c) After the Commission has received a request to classify Class SA waters as ORW and given permission to the Director to schedule a public hearing to consider reclassification and until

such time as specific stormwater design criteria become effective, only development which meets the requirements of Rule .1003(d)(3)(A), (B) and (C) and Rule .1005(2)(a) of this Section shall be approved within 575 feet of the mean high water line of these waters.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a);*
Eff. September 1, 1995.

15A NCAC 02H .1008 DESIGN OF STORMWATER MANAGEMENT MEASURES

(a) Structural Stormwater Control Options. Stormwater control measures which may be approved pursuant to this Rule and which shall not be considered innovative include:

(1) Stormwater infiltration systems including infiltration basins/ponds, swales, and vegetative filters;
(2) Wet detention ponds; and
(3) Devices approved in accordance with Paragraph (h) of this Rule.

All stormwater management structures are subject to the requirements of Paragraph (c) of this Rule.

(b) Innovative Systems. Innovative measures for controlling stormwater which are not well established through actual experience may be approved on a demonstration basis under the following conditions:

(1) There is a reasonable expectation that the control measures will be successful;
(2) The projects are not located near High Quality Waters (HQW);
(3) Monitoring requirements are included to verify the performance of the control measures; and
(4) Alternatives are available if the control measures fail and shall be required when the Director determines that the system has failed.

(c) General Engineering Design Criteria For All Projects.

(1) The size of the system must take into account the runoff at the ultimate built-out potential from all surfaces draining to the system, including any off-site drainage. The storage volume of the system shall be calculated to provide for the most conservative protection using runoff calculation methods described on pages A.1 and A.2 in "Controlling Urban Runoff: A Practical Manual For Planning And Designing Urban BMPs" which is hereby incorporated by reference not including amendments. This document is available through the Metropolitan Washington (D.C.) Council of Governments at a cost of forty dollars ($40.00). This method is also described in the Division's document "An Overview of Wet Detention Basin Design." Other engineering methods may be approved if these methods are shown to provide for equivalent protection;
(2) All side slopes being stabilized with vegetative cover shall be no steeper than 3:1 (horizontal to vertical);
(3) All stormwater management structures shall be located in recorded drainage easements for the purposes of operation and maintenance and shall have recorded access easements to the nearest public right-of-way. These easements shall be granted in favor of the party responsible for operating and maintaining the stormwater management structures;
(4) Vegetative filters designed in accordance with Paragraph (f) of this Rule are required from the overflow of all infiltration systems and discharge of all stormwater wet detention ponds. These filters shall be at least 30 feet in length, except where a minimum length of 50 feet is required in accordance with Rule .1005(2)(b)(iii) of this Section;
(5) Stormwater controls shall be designed in accordance with the provisions of this Section. Other designs may be acceptable if these designs are shown by the applicant, to the satisfaction of the Director, to provide equivalent protection;
(6) In accordance with the Antidegradation Policy as defined in 15A NCAC 2B .0201, additional control measures may be required on a case-by-case basis to maintain and protect, for existing and anticipated uses, waters with quality higher than the standards; and
(7) Stormwater control measures used for sedimentation and erosion control during the construction phase must be cleaned out and returned to their designed state.

(d) Infiltration System Requirements. Infiltration systems may be designed to provide infiltration of the entire design rainfall volume required for a site or a series of successive systems may be utilized. Infiltration may also be used to pretreat runoff prior to disposal in a wet detention ponds. The following are general requirements:

(1) Infiltration systems shall be a minimum of 30 feet from surface waters and 50 feet from Class SA waters;
(2) Infiltration systems shall be a minimum distance of 100 feet from water supply wells;
(3) The bottom of infiltration systems shall be a minimum of two feet above the seasonal high water table;
(4) Infiltration systems must be designed such that runoff in excess of the design volume by-passes the system and does not flush pollutants through the system;
(5) Infiltration systems must be designed to completely draw down the design storage volume to the seasonal high water table under seasonal high water conditions within five days and a hydrogeologic evaluation may be required to determine whether the system can draw down in five days;
(6) Soils must have a minimum hydraulic conductivity of 0.52 inches per hour to be suitable for infiltration;
(7) Infiltration systems must not be sited on or in fill material, unless approved on a case-by-case basis under Paragraph (h) of this Rule;
(8) Infiltration systems may be required on a case-by-case basis to have an observation well to provide ready inspection of the system;
(9) If runoff is directed to infiltration systems during construction of the project, the system must be restored to design specifications after the project is complete and the entire drainage area is stabilized.

(e) Wet Detention Pond Requirements. These practices may be used as a primary treatment device or as a secondary device following an infiltration system. Wet detention ponds shall be designed for a specific pollutant removal. Specific requirements for these systems are as follows:

(1) The design storage volume shall be above the permanent pool;
(2) The discharge rate from these systems following the one inch rainfall design storm shall be such that the draw down to the permanent pool level occurs within five days, but not in less than two days;
(3) The design permanent pool level mean depth shall be a minimum of three feet and shall be designed with a surface area sufficient to remove 85 percent of total suspended solids. The design for 85 percent total suspended solids removal shall be based on "Methodology for Analysis of Detention Basins for Control of Urban Runoff Quality" which is hereby incorporated by reference not including subsequent amendments. This document is available from the U.S. Environmental Protection Agency (Document number EPA440/5-87-001) at no cost;
(4) The inlet structure must be designed to minimize turbulence using baffles or other appropriate design features and shall be located in a manner that avoids short circuiting in the pond;
(5) Pretreatment of the runoff by the use of vegetative filters may be used to minimize sedimentation and eutrophication of the detention pond;
(6) Wet detention ponds shall be designed with a forebay to enhance sedimentation at the inlet to the pond;
(7) The basin side slopes for the storage volume above the permanent pool shall be stabilized with vegetation down to the permanent pool level and shall be designed in accordance with Subparagraph (c)(2) of this Rule;
(8) The pond shall be designed with side slopes no steeper than 3:1 (horizontal to vertical);
(9) The pond shall be designed to provide for a vegetative shelf around the perimeter of the basin. This shelf shall be gently sloped (6:1 or flatter) and shall consist of native vegetation;
(10) The pond shall be designed to account for sufficient sediment storage to allow for the proper operation of the facility between scheduled cleanout periods.

(f) Vegetative Filter Requirements. Vegetative filters shall be used as a non-structural method for providing additional infiltration, filtering of pollutants and minimizing stormwater impacts. Requirements for these filters are as follows:

(1) A distribution device such as a swale shall be used to provide even distribution of runoff across the width of the vegetative filter;
(2) The slope and length of the vegetative filter shall be designed, constructed and maintained so as to provide a non-erosive velocity of flow through the filter for the 10 year storm and shall have a slope of five percent or less, where practicable; and
(3) Vegetation in the filter may be natural vegetation, grasses or artificially planted wetland vegetation appropriate for the site characteristics.

(g) Curb Outlet Systems. Projects that meet the low density provisions of Rules .1005 through .1007 of this Section may use curb and gutter with outlets to convey the stormwater to grassed swales or vegetated areas prior to the runoff discharging to vegetative filters or wetlands. Requirements for these curb outlet systems are as follows:

(1) The curb outlets shall be located such that the swale or vegetated area can carry the peak flow from the 10 year storm and the velocity of the flow shall be non-erosive;

(2) The longitudinal slope of the swale or vegetated area shall not exceed five percent, where practicable;
(3) The side slopes of the swale or vegetated area shall be no steeper than 5:1 (horizontal to vertical). Where this is not practical due to physical constraints, devices to slow the rate of runoff and encourage infiltration to reduce pollutant delivery shall be provided;
(4) The minimum length of the swale or vegetated area shall be 100 feet; and
(5) In sensitive areas, practices such as check dams, rock or wooden, may be required to increase detention time within the swale or vegetated area.

(h) Alternative Design Criteria. In addition to the control measures outlined in Paragraphs (b), (d), (e), (f) and (g) of this Rule, stormwater management systems consisting of other control options or series of control options may be approved by the Director on a case-by-case basis. This approval shall only be given in cases where the applicant can demonstrate that the Alternative Design Criteria shall provide equal or better stormwater control, equal or better protection of waters of the state, and result in no increased potential for nuisance conditions. The criteria for approval shall be that the stormwater management system shall provide for 85 percent average annual removal of Total Suspended Solids and that the discharge rate from the system meets one of the following:

(1) the discharge rate following the one-inch design storm shall be such that the runoff volume draws down to the pre-storm design stage within five days, but not less than two days; or
(2) the post development discharge rate shall be no larger than predevelopment discharge rate for the one year 24 hour storm.

(i) Operation and maintenance plans. Prior to approval of the development by the Division an operation and maintenance plan or manual shall be provided by the developer for stormwater systems, indicating the operation and maintenance actions that shall be taken, specific quantitative criteria used for determining when those actions shall be taken, and who is responsible for those actions. The plan must clearly indicate the steps that shall be taken and who shall be responsible for restoring a stormwater system to design specifications if a failure occurs and must include an acknowledgment by the responsible party. Development must be maintained consistent with the requirements in these plans and the original plans and any modifications to these plans must be approved by the Division.

(j) System Design. Stormwater systems must be designed by an individual who meets any North Carolina occupational licensing requirements for the type of system proposed. Upon completion of construction, the designer for the type of stormwater system installed must certify that the system was inspected during construction, was constructed in substantial conformity with plans and specifications approved by the Division and complies with the requirements of this Section prior to issuance of the certificate of occupancy.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a);*
Eff. September 1, 1995.

15A NCAC 02H .1009 STAFF REVIEW AND PERMIT PREPARATION

(a) The staff of the permitting agency shall conduct a review of plans, specifications and other project data accompanying the application and shall determine if the application and required information are complete. The staff shall acknowledge receipt of a complete application.

(b) If the application is not complete with all required information, the application may be returned to the applicant. The staff shall advise the applicant by mail:

(1) how the application or accompanying supporting information may be modified to make them acceptable or complete; and
(2) that the 90 day processing period required in G.S. 143-215.1 begins upon receipt of corrected or complete application with required supporting information.

(c) If an application is accepted and later found to be incomplete, the applicant shall be advised how the application or accompanying supporting information may be modified to make them acceptable or complete, and that if all required information is not submitted within 30 days that the project shall be returned as incomplete.

History Note: *Authority G.S. 143-215.1; 143-215.3(a);*
Eff. September 1, 1995.

15A NCAC 02H .1010 FINAL ACTION ON PERMIT APPLICATIONS TO THE DIVISION

(a) The Director shall take final action on all applications not later than 90 days following receipt of a complete application and with required information. All permits or renewals of permits and decisions denying permits or renewals shall be in writing.
(b) The Director is authorized to:
(1) issue a permit containing such conditions as are necessary to effectuate the purposes of G.S. 143, Article 21;
(2) issue permit containing time schedules for achieving compliance with applicable water quality standards and other legally applicable requirements;
(3) deny a permit application where necessary to effectuate:
(A) the purposes of G.S. 143, Article 21;
(B) the purposes of G.S. 143-215.67(a);
(C) rules on coastal waste treatment, disposal, found in Section .0400 of this Subchapter;
(D) rules on "subsurface disposal systems," found in 15A NCAC 18A .1900. Copies of these Rules are available from the Division of Environmental Health, P.O. Box 29535, Raleigh, North Carolina 27626-0535; and
(E) rules on groundwater quality standards found in Subchapter 2L of this Chapter.
(4) hold public meetings when necessary to obtain additional information needed to complete the review of the application. The application will be considered as incomplete until the close of the meeting record.
(c) If a permit is denied, the letter of denial shall state the reason(s) for denial and any reasonable measures which the applicant may take to make the application approvable.
(d) Permits shall be issued or renewed for a period of time deemed reasonable by the Director.

History Note: *Authority G.S. 143-215.1; 143-215.3(a);*
Eff. September 1, 1995.

15A NCAC 02H .1011 MODIFICATION AND REVOCATION OF PERMITS
Any permit issued by the Division pursuant to these Rules is subject to revocation, or modification upon 60 days notice by the Director in whole or part for good cause including but not limited to:
(1) violation of any terms or conditions of the permit;
(2) obtaining a permit by misrepresentation or failure to disclose fully all relevant facts;
(3) refusal of the permittee to allow authorized employees of the Department of Environment, Health, and Natural Resources upon presentation of credentials:
(a) to enter upon permittee's premises on which a system is located in which any records are required to be kept under terms and conditions of the permit;
(b) to have access to any copy and records required to be kept under terms and conditions of the permit;
(c) to inspect any monitoring equipment or method required in the permit; or
(d) to sample any discharge of pollutants;
(4) failure to pay the annual fee for administering and compliance monitoring.

History Note: *Authority G.S. 143-215.1; 143-215.3(a);*
Eff. September 1, 1995.

15A NCAC 02H .1012 DELEGATION OF AUTHORITY
For permits issued by the Division, the Director is authorized to delegate any or all of the functions contained in these Rules except the following:
(1) denial of a permit application;
(2) revocation of a permit not requested by the permittee; or
(3) modification of a permit not requested by the permittee.

History Note: *Authority G.S. 143-215.3(a);*
Eff. September 1, 1995.

15A NCAC 02H .1013 GENERAL PERMITS

(a) In accordance with the provisions of G.S. 143.215.1(b)(3) and (4), general permits may be developed by the Division and issued by the Director for categories of activities covered in this Section. All activities in the State that received a "Certificate of Coverage" for that category from the Division shall be deemed covered under that general permit. Each of the general permits shall be issued individually under G.S. 143-215.1, using all procedural requirements specified for state permits including application and public notice. Activities covered under general permits, developed in accordance with this Rule, shall be subject to the same standards and limits, management practices, enforcement authorities, and rights and privileges as specified in the general permit. Procedural requirements for application and permit approval, unless specifically designated as applicable to individuals proposed to be covered under the general permits, apply only to the issuance of the general permits. After issuance of the general permit by the Director, activities in the applicable categories may request coverage under the general permit, and the Director or his designee shall grant appropriate certification. General permits may be written to regulate categories of other activities that all: involve the same or substantially similar operations; have similar characteristics; require the same limitations or operating conditions; require the same or similar monitoring; and in the opinion of the Director are more appropriately controlled by a general permit.

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

(c) For a general permit to apply to an activity, a Notice of Intent to be covered by the general permit must be submitted to the Division using forms provided by the Division and, as appropriate, following the application procedures specified in this Section. If all requirements are met, coverage under the general permit may be granted. If all requirements are not met, a long form application and full application review procedure shall be required.

(d) General permits may be modified and reissued by the Division as necessary. Activities covered by 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.

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

(f) Anyone engaged in activities covered by the general permit rules but not permitted in accordance with this Section shall be considered in violation in G.S. 143-215.1.

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

(h) 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 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 may be:

(1) the activity is a significant contributor of pollutants;
(2) conditions at the permitted site change, 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 Commission Rules;
(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.

(i) Any interested person may petition the Director to take an action under Paragraph (h) of this Rule to require an individual permit.

(j) General permits may be modified, terminated, or revoked and reissued in accordance with the authority and requirements of Rules .1010 and .1011 of this Section.

History Note: *Authority G.S. 143-215.1; 143-215.3(a);*
Eff. September 1, 1995.

15A NCAC 02H .1020 UNIVERSAL STORMWATER MANAGEMENT PROGRAM

(a) Adoption of the Universal Stormwater Management Program (USMP) shall be made at the option of a local government by adopting an ordinance that complies with the requirements of this Rule and the requirements of 15A NCAC 02B .0104(f). The Environmental Management Commission shall approve local ordinances if it determines that the requirements of the local ordinance equal or exceed the provisions of this Rule. A model ordinance for the Universal Stormwater Management Program shall be available from the Division of Water Quality (DWQ). Administration and implementation of the USMP shall be the responsibility of the adopting local government within its jurisdiction. Local governments located within one of the 20 Coastal Counties may elect to have the Division of Water Quality administer and implement the Universal Stormwater Management Program, either whole or in part, within their jurisdiction following their adoption of the program. Adoption of the USMP may not satisfy water quality requirements associated with the protection of threatened or endangered species or those requirements associated with a Total Maximum Daily Load (TMDL). The requirements of the USMP shall supercede and replace all other existing post-construction stormwater requirements within that jurisdiction, as specified in Paragraph (b) of this Rule.

(b) With the exceptions noted in Paragraph (c) of this Rule, the requirements specified in this Rule shall replace the following DWQ stormwater control requirements:

(1) Water Supply (WS) Watershed II (WS II) (15A NCAC 02B .0214(3)(b)(i));
(2) WS Watershed II Critical Area (WS II CA) (15A NCAC 02B .0214(3)(b)(ii));
(3) WS Watershed III (WS III) (15A NCAC 02B .0215(3)(b)(i));
(4) WS Watershed III Critical Area (WS III CA) (15A NCAC 02B .0215(3)(b)(ii));
(5) WS Watershed IV (WS IV) (15A NCAC 02B .0216(3)(b)(i));
(6) WS Watershed IV Critical Area (WS IV CA) (15A NCAC 02B .0216(3)(b)(ii));
(7) High Quality Waters (HQW) for Freshwaters (15A NCAC 02H .1006);
(8) High Quality Waters (HQW) for Saltwaters (15A NCAC 02H .1006);
(9) Outstanding Resource Waters (ORW) for Freshwaters (15A NCAC 02H .1007);
(10) Outstanding Resource Waters (ORW) for Saltwaters (15A NCAC 02H .1007);
(11) Shellfishing (SA) (15A NCAC 02H .1005(2));
(12) Post-Construction Requirements of the Phase 2 Program (S.L. 2006-246);
(13) Coastal Counties Stormwater Requirements in 15A NCAC 02H .1005(3);
(14) Stormwater Controls for 401 Certifications under 15A NCAC 02H .0500;
(15) Catawba Buffer Rules (15A NCAC 02B .0243 and 02B .0244); and
(16) 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 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 superceded 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 superceded 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 supercede 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) 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) 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 and intermittent surface waters. 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) 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) 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. 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 and intermittent surface waters. 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 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 allowed. Redevelopment of non-residential structures within the one percent Annual Chance Floodplain that meets the provisions of 15A NCAC 02H .1002(14) is 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) Structural stormwater controls required under Paragraphs (d) and (e) shall meet the following criteria:

(1) Remove an 85 percent average annual amount of Total Suspended Solids.

(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.

(4) Meet the General Engineering Design Criteria set forth in 15A NCAC 02H .1008(c).

(g) For the purposes of this Rule, a surface water shall be present if the feature is shown on either the most recent complete 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 shall be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 02B .0233 (3)(a).

(h) Local governments that implement the Universal Stormwater Management Program shall require recorded deed restrictions and protective covenants that ensure development activities will maintain the project consistent with approved plans.

(i) Local governments that implement the Universal Stormwater Management Program shall require an operation and maintenance plan that ensures the operation of the structural stormwater control measures required by the program. 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) 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 stormwater control measures that result in fecal coliform die off and that control to the maximum extent practicable sources of fecal coliform while incorporating the requirements specified in Paragraph (f) of this Rule.

(2) Prohibit new points of stormwater discharge to SA waters or expansion (increase in the volume of stormwater flow through conveyances or increase in capacity of conveyances) of existing stormwater conveyance systems that drain to SA waters. Any modification or redesign of a stormwater conveyance system within the contributing drainage basin must not increase the net amount or rate of stormwater discharge through existing outfalls to SA waters. 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) In addition to the other measures required in this Rule, development activities draining to trout (Tr) waters shall use stormwater control measures that avoid an increase in the receiving water temperature, while still incorporating the requirements specified in Paragraph (f) of this Rule.

(l) 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. 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.

(m) 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, or less.

(n) The following special provisions of the Universal Stormwater Management Program apply only to federal facilities and Department of Defense (DoD) installations. Federal facilities and DoD installations may adopt the Universal Stormwater Management Program 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 (h) 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, or other appropriate instruments, to ensure that development activities regulated under this Rule will be maintained in a manner consistent with the approved plans.

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

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a);*
Eff. January 1, 2007.