15A NCAC 02B .0240 is proposed for amendment as follows:

15A NCAC 02B .0240 NUTRIENT OFFSET ~~PAYMENTS~~

(a) PURPOSE. The purpose of this Rule is to establish procedures for the optional payment of nutrient offset fees by persons subject to other nutrient rules of this Section, to the extent allowed by those rules, to the NC Ecosystem Enhancement ~~Program, subsequently referred to as the Program,~~ Program or to other public or private parties where ~~the Program or such parties~~ these providers implement nutrient load-reducing projects ~~for nutrient offset purposes~~ and accept nutrient offset payments. ~~payments for those purposes, and~~ The purpose is also to establish procedures for Division approval of such projects. The option provided by this Rule shall be available for purposes of rule compliance to either persons who are subject to nutrient control requirements under Rules of this Section or to the Program. ~~where either of the following applies:~~

~~(1) The following rules of this Section allow offsite options or nutrient offset payments toward fulfillment or maintenance of nutrient reduction requirements:~~

~~(A) .0234 and .0235 of the Neuse nutrient strategy,~~

~~(B) .0258 of the Tar-Pamlico nutrient strategy, and~~

~~(C) applicable rules of the Jordan nutrient strategy, which is described in Rule .0262; and~~

~~(2) Other rules adopted by the Commission allow this option toward fulfillment of nutrient load reduction requirements.~~

(b) DEFINITIONS. Unless context indicates otherwise, the following words and phrases, which are not defined in G.S. 143 Article 21, shall be interpreted as follows for purposes of this Rule:

(1) "Load reduction credit" or "credit" means annual mass load reduction of nitrogen or phosphorus, expressed in pounds per year for perpetual credits and in pounds for finite-duration credits;

(2) "Non-wasting endowment" means a fund that generates enough interest to cover the cost of perpetual monitoring, maintenance, repair and renovation of a load-reducing measure.

(3) "Nutrient offset" means a form of nutrient trading involving implementation of a nutrient load-reducing project by the NC Ecosystem Enhancement Program or its successor, or by another public or private party, and the sale of, or acceptance of payments for, load reduction credits from that project to more than one person subject to a nutrient rule of this Section.

(4) "Nutrient offset bank", or "bank" means a nutrient offset project implemented by a provider other than the Program and approved by the Division for sale of load reduction credits based on its compliance with the requirements of this Rule.

(5) "Offset banking instrument" means the legal document for the establishment, operation, and use of a nutrient offset bank.

(6) "Program" means the NC Ecosystem Enhancement Program or its successor.

(7) "Provider" means any one of the Program and other public or private parties that implement nutrient offset projects.

~~(b)~~ (c) GEOGRAPHIC RESTRICTIONS. Offset fees paid pursuant to this Rule shall be used to achieve nutrient load reductions subject to the following geographic restrictions:

(1) Load reductions shall be located within the same 8-digit cataloguing unit, as designated by the US Geological Survey, as the loading activity that is being offset; and

~~(2) The Division shall track impacts by 10-digit watershed, as designated by the US Geological Survey and providers shall locate projects proportional to the location of impacts to the extent that the projects would meet the least cost alternative criterion per S.L. 2007-438. The location of load reduction projects shall be reviewed during the approval process described in Paragraph (c) of this Rule;~~

~~(3) Impacts that occur in the watershed of Falls Lake in the upper Neuse River Basin may be offset only by load reductions in the same watershed; Impacts in the Neuse 01 8-digit cataloguing unit below the Falls watershed, as designated by the US Geological Survey, may be offset only by load reductions in that same lower watershed;~~

~~(4)~~ (2) ~~Restrictions established in the Jordan nutrient strategy, which is described in Rule 15A NCAC 02B .0262; and~~ Other watershed-specific geographic restrictions established in Rule .0273 of this Section regarding nutrient trading wherever those restrictions are more limiting than (1) of this Paragraph.

~~(5) Any further restrictions established by the Commission through rulemaking.~~

~~(c)~~ (d) OFFSET BANKING INSTRUMENT AND PROJECT APPROVAL STANDARDS. ~~The Program and other parties~~ For any nutrient offset project to generate credit for sale, providers shall first document and obtain Division approval for aspects of that project identified in this Paragraph, which may be recorded in the form of a banking instrument and project plan as described below, or entirely under a project plan. ~~of proposed nutrient offset projects prior to construction. Other parties shall sell credits in compliance with approved credit release schedules and with the requirements of this Rule. Project approval~~ Offset banking instrument approval shall be based on compliance with the following standards:

(1) ELIGIBLE REDUCTIONS. Load reductions shall be eligible for credit ~~shall not include reductions used to satisfy other requirements under the same nutrient strategy;~~ as follows:

(A) Reductions shall be achieved relative to the loading condition of the source being controlled as of the baseline period of the relevant nutrient strategy as defined in rules of this Section. Alternatively, reductions may be relative to a loading condition for which departure from baseline conditions is accounted under the strategy;

(B) Reductions shall be site-specific estimates of annual mass load reduction of nitrogen and phosphorus, and shall be converted to reductions delivered to the impaired water body under the relevant nutrient strategy by incorporating any delivery factors or other adjustments as required under rules of this Section for that strategy. Site-specific reduction estimates for Division-approved practices shall conform to Division-approved practice design standards and load reduction estimation methods provided at http://portal.ncdenr.org/web/wq/nutrient-offset-practices. Other practices shall satisfactorily address approval standards provided in the

guidance, *DWR Approval Framework for Alternative Nutrient Load-Reducing Measures* dated May 29, 2015; and

(C) Reductions shall not include those used to satisfy other requirements under the same nutrient strategy or those resulting from state or federal compensatory mitigation requirements.

(2) ESTABLISHING REDUCTIONS. Inclusion of financial mechanisms to ensure that load reductions are successfully initiated. This shall include as necessary financial assurance in the form of a completion bond, credit insurance, letter of credit, escrow, or other vehicle acceptable to the Division and payable to, or for the benefit of, the Division in an amount sufficient to ensure the involved property is secured in fee title or by easement, and that planting or construction, monitoring and maintenance are completed as necessary to meet the requirements of the approved project plan. This financial assurance obligation shall not apply to the Program;

~~(2)~~ (3) ~~The Program and other parties shall agree to provide adequate financial assurance to protect and maintain load reductions for the stated duration, including for maintenance, repair and renovation of the proposed measure;~~SUSTAINING REDUCTIONS. Inclusion of mechanisms to ensure that load reductions are sustained for the stated project duration. For perpetual load reduction projects, this shall include the following as appropriate to the type of load-reducing measure:

(A) A perpetual conservation easement or similar preservation mechanism to ensure perpetual stewardship with the purpose of protecting the measure's nutrient removal functions;

(B) A non-wasting endowment or other dedicated financial surety to provide for the perpetual land management, maintenance, repair and renovation of appurtenant lands and structures;

(C) Placement of structures in recorded drainage easements with recorded access easements to the nearest public right-of-way for purposes of operation and maintenance. These easements shall be granted in favor of the party responsible for operating and maintaining the structures, with a note as to the responsible party. Structure operation and maintenance shall be the responsibility of the landowner or easement holder unless the Division gives written approval for another party; and

(D) A legally binding commitment to provide an alternative practice or practices achieving equivalent load reduction and otherwise meeting the requirements of this Rule in the event that the approved practice at some point cannot be continued.

~~(3)~~ (4) ~~The Program and other parties shall agree that once credits are established for a measure and until they are exhausted, they shall provide a credit/debit ledger to the Division at regular intervals;~~TIMING OF REDUCTIONS. Inclusion of mechanisms to ensure that load reductions are initiated and sold in a timely manner relative to acceptance of payments for loads being offset. This shall include:

(A) Providers other than the Program shall agree to sell credits only as load reduction functions are established as interpreted through project-specific credit release schedules established in

Division-approved practice standards available at http://portal.ncdenr.org/web/wq/nutrient-offset-practices;

(B) For a given geographic area conforming to Paragraph (c), the Program shall agree to accept payments in advance of initiating load reductions only to the extent allowed by Division-approved advance credit allocations defined at http://, which shall be revised annually by January 1. For a given geographic area and year, advance credit allocations shall not exceed the nutrient reductions assigned to 10 acres of riparian buffer restoration. Program projects shall be constructed no later than the end of the fourth full state fiscal year after the Program receives any payment for the geographic area; and

(C) Once credits are established for a project and until they are exhausted, providers shall provide a credit/debit ledger to the Division at regular intervals no less frequent than semi-annual.

~~(4)~~ (5) ~~The Program and other parties shall agree~~ Agreement that the party responsible for a ~~measure~~ project shall allow the Division access to it throughout its lifetime for compliance inspection purposes;

~~(5)~~ (6) ~~The Program or other party seeking approval shall obtain~~ For prospective projects, completion of a site review from Division staff prior to Division approval to verify site conditions suitable to achieve the proposed load reductions through the proposed measure; and

~~(6)~~ (7) PROJECT SPECIFICS. Project approval shall be based on provision of a project plan that addresses the following content requirements: ~~The Program shall submit a proposal, and other parties shall submit a proposal or a draft banking instrument, addressing the following items regarding a proposed load-reducing measure:~~

(A) Identify the location and site boundaries of the proposed ~~measure,~~ project, the geographic area to be served by credits in compliance with the requirements of Paragraph ~~(b)~~ (c) of this Rule, ~~existing conditions in the contributing drainage area and location of the measure, and the nature of~~ document or provide other satisfactory evidence of pre-project conditions suitable for achievement of estimated load reductions, and provide plans for the proposed measure with sufficient detail to support ~~estimates of~~ compliance with design standards ~~load reduction~~ required in this Paragraph;

(B) Provide load reduction calculations ~~of the annual magnitudes of load reductions and identify final credit values incorporating any delivery factors or other adjustments required under rules identified in Paragraph (a) of this Rule;~~ in conformance with the requirements of this Paragraph;

(C) Define the duration of load reductions, and provide ~~a conservation easement or similar legal mechanism to be recorded with the County Register of Deeds and that is sufficient to ensure protection and maintenance of load reductions for the stated duration;~~ the mechanisms required by this Paragraph to sustain those load reductions;

(D) Identify the property owner and parties responsible for obtaining all permits and other authorizations needed to establish the proposed measure, for constructing and ensuring initial

performance of the proposed measure, for reporting on and successfully completing the measure, for holding and enforcing the conservation easement, and for ensuring protection and maintenance of functions for its stated duration;

(E) Provide a plan for implementing the proposed measure, including a timeline, a commitment to provide an as-built plan and report upon establishment of the measure, elements to be included in the as-built plan and report, a commitment to provide a bond or other financial assurance sufficient to cover all aspects of establishment and initial performance prior to the release of any ~~credits,~~ credits as described in this Paragraph, and criteria for successful completion; ~~and~~

(F) Provide a monitoring and maintenance plan designed to achieve successful ~~completion,~~ completion that commits to annual reporting to the Division until success is achieved, that recognizes the Division's authority to require extension or re-initiation of monitoring depending on progress toward success, and that commits to a final report upon completion. The final report shall reaffirm the party that shall hold and enforce the conservation easement or other legal ~~instrument.~~ instrument; and

(G) Provide plans for post-completion operation and maintenance of the measure by the responsible party, including commitment to repair and renovate the measure as needed to maintain its performance, to keep records of all such maintenance, repair and renovation, and to notify the Division of any significant performance remediation needs and plans.

~~(d)~~ (e) The Program shall establish and revise nutrient offset rates as set out in Rule .0274 of this Section. Offset payments accepted by the Program shall be placed into the Riparian Buffer Restoration Fund administered by the Department pursuant to G.S. 143-214.21.

~~(e)~~ (f) PURCHASE OF OFFSET CREDITS. Persons who seek to ~~pay~~ purchase nutrient offset ~~fees~~ credits under rules of this Section shall do so in compliance with such rules, the requirements of Paragraph ~~(b)~~ (c) of this Rule, and the following:

(1) A non-governmental entity shall purchase nutrient offset credit from a ~~party~~ provider other than the Program if such credit is available in compliance with the criteria of this Rule at the time credit is sought, and shall otherwise demonstrate to the permitting authority that such credit is not available before seeking to make payment to the Program;

(2) Offset payments made to the Program shall be contingent upon acceptance of the payment by the Program. The financial, temporal and technical ability of the Program to satisfy the mitigation request will be considered to determine whether the Program will accept or deny the request;

(3) Where persons seek to offset more than one nutrient type, they shall make payment to address each type;

(4) The offset payment shall be an amount sufficient to ~~fund 30 years of nutrient reduction.~~provide for establishment, ongoing maintenance, repair and renovation of the measure's load-reducing functions for the duration needed to satisfy requirements of a person's obligation under the applicable rule of this Section;

(5) Persons who seek offsets to meet new development stormwater permitting requirements shall provide proof of offset credit purchase to the permitting authority prior to approval of the development plan; and

(6) A wastewater discharger that elects to purchase offset credits for the purpose of fulfilling or maintaining nutrient reduction requirements shall submit proof of offset credit acquisition or a letter of commitment from ~~the Program or third party~~ a provider with its request for permit modification. Issuance of a permit that applies credits to nutrient limits shall be contingent on receipt of proof of offset credit acquisition. A discharger may propose to make incremental payments for additional nutrient allocations, contingent upon receiving a letter of commitment from ~~the Program or third party~~ a provider to provide the offset credit needed for permit issuance. In that event the Division may issue or modify that permit accordingly, and shall condition any flow increase associated with that incremental purchase on payment in full for the additional allocation. ~~Offset responsibility for nutrient increases covered under this Paragraph shall be transferred to the Program or third party provider when it has received the entire payment.~~

~~(f) Credits associated with load reducing activities funded under this Rule shall be awarded exclusively to the person, municipality, discharger, or group of dischargers who paid the offset fee.~~

(g) Responsibility for achieving and maintaining nutrient loads offset pursuant to this Rule shall be transferred to a provider when it has received full payment for the load reduction.

(h) RESALE OF CREDITS. A person who obtains load reduction credits pursuant to the requirements of this Rule that subsequently become unnecessary for rule compliance may sell them to another person meeting the requirements of this Rule. The seller shall provide the Division acknowledgement of rule compliance and authorization for such resale by the permitting authority. The buyer shall meet the requirements of paragraph (f) of this Rule.

History Note: *Authority G.S. 143-214.1; 143-214.20; 143-214.21; S.L. 1995, c. 572; S.L. 2007, c. 438; S.L. 2009, c. 337; S.L. 2009, c. 484; S.L. 2009, c. 486;*
Eff. August 1, 1998;
Amended Eff. August 1, 2006;
Amended Eff. September 1, 2010.
Amended Eff. August 1, 2017.

15A NCAC 02B .0263 is proposed for amendment as follows:

15A NCAC 02B .0263 JORDAN WATER SUPPLY NUTRIENT STRATEGY: DEFINITIONS

~~The following words and phrases, which are not defined in G.S. 143, Article 21, shall be interpreted as follows for the purposes of the Jordan nutrient strategy:~~ Unless the context indicates otherwise, the following words and phrases, which are not defined in G.S. 143, Article 21, shall be interpreted as follows for the purposes of the Jordan and Falls lake nutrient strategies:

~~(1) "Allocation" means the mass quantity of nitrogen or phosphorus that a discharger, group of dischargers, nonpoint source, or collection of nonpoint sources is assigned as part of a TMDL. For point sources, possession of allocation does not authorize the discharge of nutrients but is prerequisite to such authorization through a NPDES permit.~~

~~(2)~~(1) "Applicator" means the same as defined in 15A NCAC 02B .0202(4).

(2) Atmospheric nitrogen means total oxidized nitrogen (NO_y) which includes all nitrogen oxides (including NO_2, NO, N_2, nitrogen trioxide [N_2O_3], nitrogen tetroxide [N_2O_4], dinitrogen pentoxide [N_2O_5], nitric acide (HNO3) peroxyacl nitrates (PAN)), the sum of which is referred to as reduced nitrogen (NH_x).

(3) "Channel" means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water.

(4) "DBH" means diameter at breast height of a tree measured at 4.5 feet above ground surface level.

~~(5) "Delivered," as in delivered allocation, load, or limit, means the allocation, load, or limit that is measured or predicted at Jordan Reservoir. A delivered value is equivalent to a discharge value multiplied by the transport factor for that discharge location.~~

~~(6) "Development" means the same as defined in 15A NCAC 02B .0202(23).~~

~~(7)~~(5) "Discharge," as in discharge allocation, load, or limit means the allocation, load, or limit that is measured at the point of discharge into surface waters. ~~waters in the Jordan watershed~~. A discharge value is equivalent to a delivered value divided by the transport factor for that discharge location.

~~(8)~~(6) "Ditch or canal" means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial or intermittent streams.

~~(9)~~(7) "Ephemeral stream" means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.

~~(10) "Existing development" means development, other than that associated with agricultural or forest management activities, that meets one of the following criteria:~~

~~(a) It either is built or has established a vested right based on statutory or common law as interpreted by the courts, for projects that do not require a state permit, as of the effective date of either local new development stormwater programs implemented under 15A NCAC 02B .0265 or, for projects requiring a state permit, as of the applicable compliance date established in 15A NCAC 02B .0271(5) and (6); or~~

~~(b) It occurs after the compliance date set out in Sub-Item (4)(d) of Rule .0265 but does not result in a net increase in built-upon area.~~

~~(11)~~(8) "Intermittent stream" means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the continuous conveyance of water.

~~(12) "Jordan nutrient strategy," or "Jordan water supply nutrient strategy" means the set of 15A NCAC 02B .0262 through .0273 and .0311(p).~~

~~(13) "Jordan Reservoir" means the surface water impoundment operated by the US Army Corps of Engineers and named B. Everett Jordan Reservoir, as further delineated for purposes of the Jordan nutrient strategy in 15A NCAC 02B .0262(4).~~

~~(14) "Jordan watershed" means all lands and waters draining to B. Everett Jordan Reservoir.~~

~~(15)~~(9) "Load" means the mass quantity of a nutrient or pollutant released into surface waters over a given time period. Loads may be expressed in terms of pounds per year and may be expressed as "delivered load" or an equivalent "discharge load."

~~(16) "Load allocation" means the same as set forth in federal regulations 40 CFR 130.2(g), which is incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from http://www.epa.gov/lawsregs/search/40cfr.html or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.~~

(10) Load allocation means the same as set forth in federal regulations 40 CFR 130.2(g), which is incorporated herein by reference, including subsequent amendments and editions. A copy of the most current version of the regulations is available free of charge on the internet at http://www.gpo.gov/fdsys/.

~~(17)~~(11) "Modified natural stream" means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

~~(18) "New development" means any development project that does not meet the definition of existing development set out in this Rule.~~

~~(19)~~(12) "Nitrogen" means total nitrogen unless specified otherwise.~~"Nitrogen" or "total nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of nitrogen in a water or wastewater.~~

~~(20)~~(13) "NPDES" means National Pollutant Discharge Elimination System, and connotes the permitting process required for the operation of point source discharges in accordance with the requirements of Section 402 of the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq.

~~(21)~~(14) "Nutrients" means the combination of total nitrogen and total phosphorus for the purpose of the nutrient rules of this section. ~~"Nutrients" means total nitrogen and total phosphorus.~~

~~(22)~~(15) "Perennial stream" means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

~~(23)~~(16) "Perennial waterbody" means a natural or man-made basin, including lakes, ponds, and reservoirs, that stores surface water permanently at depths sufficient to preclude growth of rooted plants. For the purpose of the State's riparian buffer protection program, the waterbody must be part of a natural drainage way (i.e., connected by surface flow to a stream).

~~(24)~~(17) "Phosphorus" means total phosphorus unless specified otherwise. ~~"Phosphorus" or "total phosphorus" means the sum of the orthophosphate, polyphosphate, and organic forms of phosphorus in a water or wastewater.~~

~~(25)~~(18) "Stream" means a body of concentrated flowing water in a natural low area or natural channel on the land surface.

~~(26)~~(19) "Surface waters" means all waters of the state as defined in G.S. 143-212 except underground waters.

~~(27)~~(20) "Technical specialist" means the same as defined in 15A NCAC 06H .0102(9).

~~(28)~~(21) "Total Maximum Daily Load," or "TMDL," means the same as set forth in federal regulations 40 CFR 130.2(i) and 130.7(c)(1), which are incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from http://www.epa.gov/lawsregs/search/40cfr.html or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.

~~(29)~~(22) "Total nitrogen" or "nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of nitrogen in a water or wastewater.

~~(30)~~(23) "Total phosphorus" or "phosphorus" means the sum of the orthophosphate, polyphosphate, and organic forms of phosphorus in a water or wastewater.

~~(31)~~(24) "Transport factor" means the fraction of a discharged nitrogen or phosphorus load that is delivered from the discharge point to ~~Jordan Reservoir,~~ a waterbody as determined in an approved TMDL.

~~(32)~~(25) "Tree" means a woody plant with a DBH equal to or exceeding five inches or a stump diameter exceeding six inches.

~~(33)~~(26) "Wasteload" means the mass quantity of a nutrient or pollutant released into surface waters by a wastewater discharge over a given time period. Wasteloads may be expressed in terms of pounds per year and may be expressed as "delivered wasteload" or an equivalent "discharge wasteload."

~~(34)~~(27) "Wasteload allocation" means the same as set forth in federal regulations 40 CFR 130.2(h), which is incorporated herein by reference, including subsequent amendments and editions. These regulations may be obtained at no cost from http://www.epa.gov/lawsregs/search/40cfr.html or from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2001-355; S.L. 2005-190; S.L. 2006-259; Eff. August 11, 2009.*
Amended Eff. August 1, 2017.

15A NCAC 02B .0273 is proposed for amendment as follows:

15A NCAC 02B .0273 ~~JORDAN WATER SUPPLY NUTRIENT STRATEGY: OPTIONS FOR OFFSETTING NUTRIENT LOADS~~ NUTRIENT TRADING

PURPOSE. This Rule provides ~~parties~~ persons subject to ~~other~~ nutrient rules ~~within the Jordan nutrient strategy~~ of this Section with ~~options~~ options, to the extent allowed by those rules, for meeting rule nutrient load reduction requirements by obtaining or buying nutrient credit ~~for~~ made available from qualifying load-reducing activities conducted by ~~others (sellers) that produce excess load reductions relative to rule requirements. It provides the potential for parties who achieve excess load reductions to recover certain costs by selling such credits, and it provides opportunity for private parties to produce reductions and sell credits for profit. Overall it~~ others. Nutrient trading provides the potential for more cost-effective achievement of strategy reduction goals. ~~Accounting is required to ensure and track the availability and use of trading credits. This accounting will be compared against compliance accounting required under other individual rules of the Jordan a nutrient strategy. This Rule furthers the adaptive management intent of the strategy to protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed.~~ The minimum requirements for ~~these offset options are:~~ trading activities are as follows:

(1) DEFINITIONS. Unless context indicates otherwise, the following words and phrases, which are not defined in G.S. 143 Article 21, shall be interpreted as follows for purposes of this Rule:

(a) The terms "load reduction credit", "credit", "non-wasting endowment", "nutrient offset" and "nutrient offset bank" shall have the meanings ascribed in Rule .0240 of this Section;

(b) "Trading" means the sale of qualifying nutrient load reduction credit by a party that achieves such reductions to a buyer. Trading that involves payment of nutrient offset fees to the Ecosystem Enhancement Program or to a nutrient offset bank shall conform to Rule .0240 of this Section. Trading involving the sale of all credits generated by a load-reducing practice to a person who is subject to nutrient control requirements or to the Program shall comply with this Rule.

~~(1)~~ (2) BUYER QUALIFICATIONS AND PREREQUISITES. ~~The following buyers shall meet applicable criteria identified here and in rules imposing reduction requirements on them~~ Persons subject to nutrient control requirements under Rules of this Section and the Program may use the option to purchase load reduction credit pursuant to the limitations and requirements of this Rule. These buyers may in turn sell load reduction credit obtained pursuant to this Rule that subsequently becomes unnecessary for rule compliance to other persons meeting these specifications. Buyers shall meet any prerequisite conditions established in the nutrient rules to which they are subject before utilizing the option outlined in this ~~Rule:~~ Rule.

~~(a) Agriculture Rule .0264: Agricultural producers shall receive approval from the Watershed Oversight Committee to obtain offsite credit pursuant to the conditions of Sub-Item (5)(b);~~

~~(b) New Development Rule .0265: Developers shall meet onsite reduction requirements enumerated in Sub-Item (3)(a)(vii) before obtaining offsite credit;~~

~~(c) Wastewater Rule .0270: New and expanding dischargers shall first make all reasonable efforts to obtain allocation from existing dischargers as stated in Sub-Items (7)(a)(ii) and (8)(a)(ii), respectively; and~~

~~(d) State and Federal Entities Stormwater Rule .0271:~~

~~(i) Non-DOT entities shall meet onsite new development reduction requirements enumerated in Sub-Item (3)(a)(vi); and~~

~~(ii) NC DOT shall meet onsite non-road new development reduction requirements enumerated in Sub-Item (4)(c)(iii) before obtaining offsite credit.~~

~~(2)~~ (3) GEOGRAPHIC RESTRICTIONS. Buyers and sellers of credit shall adhere to the following watershed-specific geographic constraints on credit use:

(a) For activities subject to the Falls Water Supply Nutrient Strategy described in Rule .0275 of this Section:

(i) Load reduction needs in the upper Falls watershed as defined in Rule .0275 of this Section may be satisfied only by load reductions achieved in the upper Falls watershed; and

(ii) Load reduction needs in the lower Falls watershed as defined in Rule .0275 of this Section may be satisfied by load reductions achieved anywhere within the Falls watershed.

(b) For activities subject to the Neuse nutrient strategy described in Rule .0232 of this Section, load reduction needs in the Neuse 01 8-digit cataloguing unit, as designated by the US Geological Survey, below the Falls watershed may be satisfied only by load reductions achieved in that same subwatershed or in a lower watershed above the Neuse estuary; and

(c) For activities subject to the Jordan nutrient strategy, load reduction needs may be satisfied only by load reductions achieved in the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section.

~~(2)~~ (4) CREDIT APPROVAL STANDARDS. The party seeking approval to sell ~~excess~~ loading reduction credits pursuant to this Rule shall demonstrate to the Division that ~~such reductions~~ load reduction practices meet the following criteria:

(a) ELIGIBLE REDUCTIONS. Loading reductions eligible for credit ~~are only those in excess of load reduction goals or percentage reductions required under rules in this Section or in excess of the percentage load reduction goals established in Rule .0262 of this strategy as applied to sources not addressed by rules in this section;~~ shall be as follows:

(i) Reductions shall be achieved relative to the loading condition of the source being controlled as of the baseline period of the relevant nutrient strategy as defined in rules

of this Section. Alternatively reductions may be relative to a loading condition for which departure from baseline conditions is accounted under the strategy;

(ii) Reductions shall be site-specific estimates of annual mass load reduction of nitrogen and phosphorus. For finite-duration credits, annual mass load reductions shall be expressed in units of pounds. Site reductions shall be converted to reductions delivered to the impaired water body under the relevant nutrient strategy by incorporating any delivery factors or other adjustments as required under rules of this Section for that strategy. Site-specific reduction estimates for Division-approved practices shall conform to design standards and load reduction estimation methods provided at http://portal.ncdenr.org/web/wq/nutrient-offset-practices. Other practices shall satisfactorily address approval standards provided in the guidance, *DWR Approval Framework for Alternative Nutrient Load-Reducing Measures* dated May 29, 2015; and

(iii) Reductions shall not include those used to satisfy other requirements under the same nutrient strategy or those resulting from state or federal compensatory mitigation requirements.

(b) ~~Load reductions eligible for credit shall not include reductions achieved under other regulations to mitigate or offset actions that increase nutrient loading;~~DURATION OF REDUCTIONS. The duration of the practice and associated load reductions shall be defined. Mechanisms shall be established to ensure that load reductions are sustained for the stated practice duration. For perpetual load reduction practices, mechanisms shall include the following as appropriate to the type of practice:

(i) A perpetual conservation easement or similar preservation mechanism to ensure perpetual stewardship with the purpose of protecting the measure's nutrient removal functions;

(ii) A non-wasting endowment or other dedicated financial surety to provide for the perpetual management, maintenance, repair and renovation of appurtenant lands and structures;

(iii) Placement of structures in recorded drainage easements with recorded access easements to the nearest public right-of-way for purposes of operation and maintenance. These easements shall be granted in favor of the party responsible for operating and maintaining the structures, with a note as to the responsible party. Structure operation and maintenance shall be the responsibility of the landowner or easement holder unless the Division gives written approval for another party; and

(iv) A legally binding commitment to provide an alternative practice or practices achieving equivalent load reduction and otherwise meeting the requirements of this Rule in the event that the approved practice at some point cannot be continued.

(c) ~~These excess loading reductions shall be available as credit only within the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section, as the reduction need that they propose to offset;~~ TIMING OF REDUCTIONS. Load reductions shall be established by the time that payment for those reductions is accepted;

(d) ~~The party seeking to sell credits shall define the nature of the activities that would produce excess load reductions and define the magnitude and duration of those reductions to the Division, including addressing the following items:~~PRACTICE PLAN. In addition to providing practice information to support compliance with the preceding criteria, the party seeking to sell credits shall provide a plan with the following practice specifics:

~~(i) Account for differences in instream nutrient losses between the location of the reduction need and excess loading reduction in reaching the affected arm of Jordan Reservoir;~~

~~(ii) Quantify and account for the relative uncertainties in reduction need estimates and excess loading reduction estimates;~~

~~(iii) Ensure that excess loading reductions shall take place at the time and for the duration in which the reduction need occurs; and~~

~~(iv) Demonstrate means adequate for assuring the achievement and claimed duration of excess loading reduction, including the cooperative involvement of any other involved parties.~~

(i) Location and site boundaries of the practice in relation to the location of the buyer's loading activity in conformance with Item (3) of this Rule, documentation or other satisfactory evidence of pre-project conditions suitable for achievement of estimated load reductions, plans on the nature of the practice with sufficient detail to demonstrate conformance with design standards and support estimates of associated load reductions, and load reduction calculations conforming to the requirements of this Item;

(ii) Identification of property owner and party responsible for ensuring performance of the practice, for reporting on it, for holding and enforcing the conservation easement, and for ensuring protection and maintenance of functions for the stated duration of the practice;

(iii) To the extent needed, identification of parties responsible for obtaining or holding any permits or other authorizations needed to establish the practice, those responsible for constructing it, a plan for its installation, including a timeline, a commitment to

provide an as-built plan and report upon its completion, elements of that plan and report, and criteria for successful completion;

(iv) Should the practice not yet be installed, agreement to provide the Division opportunity for site review prior to installation to verify site conditions suitable to achieve the proposed load reductions, and following establishment to verify completion of the practice;

(v) Plans for post-completion operation and maintenance of the practice by the responsible party, including commitment to repair and renovate it as needed to maintain its performance, to keep records of all such maintenance, repair and renovation, and to notify the Division of any significant performance remediation needs and plans; and

(vi) Agreement that the party responsible for the practice shall allow the Division access to it throughout its lifetime for compliance inspection purposes.

~~(3)~~ (5) ~~The party seeking approval to sell excess loading reductions shall provide for accounting and tracking methods that ensure genuine, accurate, and verifiable achievement of the purposes of this Rule. The Division shall work cooperatively with interested parties at their request to develop such accounting and tracking methods to support the requirements of Item (2) of this Rule.~~ BUYER RESPONSIBILITIES. A person meeting the qualifications and prerequisites described in this Rule may buy credit if they meet all requirements of the nutrient rules to which they are subject to the satisfaction of the Division or its designated regulatory authority, including adjusting credit needs for any required delivery factors, obtaining and maintaining proof of purchase of appropriate credit amounts and durations to satisfy rule requirements and compliance with geographic restrictions on credit availability. Where credits are bought to satisfy a permit requirement, such as an NPDES permit, the buyer shall be liable for a violation if the credit-generating practice fails to meet the performance level necessary to satisfy the permit limits.

~~(4)~~ (6) APPROVALS. ~~Proposals for use of offsetting actions as described in this Rule shall become effective after determination by the Director that the proposal contains adequate scientific or engineering standards or procedures necessary to achieve and account for load reductions as required under Sub-Items (2) and (3) of this Rule, and that specific accounting tools required for these purposes in individual rules have been adequately established. In making this determination, the Director shall also evaluate the potential for excess loading to produce localized adverse water quality impacts that contribute to impairment of classified uses of the affected waters.~~ The Division shall review proposals for load reduction credit according to the provisions of this Rule. A party receiving Division approval may then sell the approved credits as estimated in the practice plan. Responsibility for achieving and maintaining the practice's nutrient load reductions pursuant to this Rule shall be transferred to the seller when they have received full payment for the load reduction.

(7) AGRICULTURAL OPERATIONS. A Watershed Oversight Committee or Basin Oversight Committee under a strategy agriculture rule may enable and facilitate trading by persons subject to that rule by implementing trading provisions established in that rule.

History Note: *Authority G S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-214.12; 143-214.21; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 1999; c. 329, s. 7.1; S.L. 2005-190; S.L. 2006-259;*
Eff. August 11, 2009.
Amended Eff. August 1, 2017.

15A NCAC 02B .0275 is proposed for amendment as follows:

15A NCAC 02B .0275 FALLS WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE

PURPOSE. The purpose of this Rule and Rules 15A NCAC 02B ~~.0276~~ .0277 through .0282 and .0315(q) shall be to attain the classified uses of Falls of the Neuse Reservoir set out in 15A NCAC 02B .0211 from current impaired conditions related to excess nutrient inputs; protect its classified uses as set out in 15A NCAC 02B .0216, including use as a source of water supply for drinking water; and maintain and enhance protections currently implemented by local governments in existing water supply watersheds encompassed by the watershed of Falls of the Neuse Reservoir. The reservoir, and all waters draining to it, have been supplementally classified as Nutrient Sensitive waters (NSW) pursuant to 15A NCAC 02B .0101(e)(3) and 15A NCAC 02B .0223. These Rules, as enumerated in Item (6) of this Rule, together shall constitute the Falls water supply nutrient strategy, or Falls nutrient strategy, and shall be implemented in accordance with 15A NCAC 02B .0223. The following items establish the framework of the Falls nutrient strategy:

(1) SCOPE AND LIMITATION. Falls of the Neuse Reservoir is hereafter referred to as Falls Reservoir. All lands and waters draining to Falls Reservoir are hereafter referred to as the Falls watershed. The Falls nutrient strategy rules require controls that reduce nitrogen and phosphorus loads from significant sources of these nutrients throughout the Falls watershed. These Rules do not address atmospheric emission sources of nitrogen that is deposited into the watershed but do include provisions to account for reductions in such deposition as the water quality benefits of air quality regulations are quantified. Neither do these Rules address sources on which there is insufficient scientific knowledge to base regulation, other sources deemed adequately addressed by existing regulations, sources currently considered minor, or nutrient contributions from lake sediments, which are considered outside the scope of these Rules. The Commission may undertake additional rulemaking in the future or make recommendations to other rulemaking bodies as deemed appropriate to more fully address nutrient sources to Falls Reservoir. While the scope of these Rules is limited to the reduction of nutrient loads to surface waters, practitioners are encouraged to maximize opportunities for concurrently benefiting other ecosystem services where feasible in the course of achieving the nutrient objectives.

(2) DEFINITIONS. For the purposes of this Rule the definitions the following definition apply:

(a) Falls nutrient strategy, or Falls water supply nutrient strategy means the set of 15A NCAC 02B .0275 through .0282 and .0315(p).

(b) Falls Reservoir means the surface water impoundment operated by the US Army Corps of Engineers and named Falls of Neuse Reservoir.

(c) Upper Falls Reservoir means that portion of the reservoir upstream of State Route 50.

(d) Upper Falls Watershed means that area of Falls watershed draining to Upper Falls Reservoir.

(e) Lower Falls Reservoir means that portion of the reservoir downstream of State Route 50.

(f) Lower Falls Watershed means that are of Falls watershed draining to lower falls Reservoir without first passing through Upper Falls Reservoir.

~~(2)~~(3) CRITICAL WATER SUPPLY WATERSHED DESIGNATION. Water supply waters designated WS-II, WS-III, and WS-IV within the Falls watershed shall retain their classifications. The remaining waters in the Falls watershed shall be classified WS-V. The requirements of all of these water supply classifications shall be retained and applied except as specifically noted elsewhere within the Falls nutrient strategy. In addition, pursuant to G.S. 143-214.5(b), the entire Falls watershed shall be designated a critical water supply watershed and through the Falls nutrient strategy given additional, more stringent requirements than the state minimum water supply watershed management requirements. Water supply requirements of 15A NCAC 02B .0104 apply except to the extent that requirements of the Falls nutrient strategy are more stringent than provisions addressing agriculture, forestry, and existing development. These requirements supplement the water quality standards applicable to Class C waters, as described in Rule .0211 of this Section, which apply throughout the Falls watershed. Water supply watershed requirements shall be as follows:

(a) For WS-II, WS-III, and WS-IV waters, the retained requirements of Rules 15A NCAC 02B .0214 through .0216 are characterized as follows:

(i) Item (1) addressing best usages;

(ii) Item (2) addressing predominant watershed development conditions, discharges expressly allowed watershed-wide, general prohibitions on and allowances for domestic and industrial discharges, Maximum Contaminant Levels following treatment, and the local option to seek more protective classifications for portions of existing water supply watersheds;

(iii) Sub-Item (3)(a) addressing wastewater discharge limitations;

(iv) Sub-Item (3)(b) addressing nonpoint source and stormwater controls; and

(v) Sub-Items (3)(c) through (3)(h) addressing aesthetic and human health standards.

(b) For waters classified WS-V, the requirements of water supply Rule 15A NCAC 02B .0218 shall be applied.

~~(3)~~(4) GOAL AND OBJECTIVES. To achieve the purpose of the Falls nutrient strategy, the Commission establishes the goal of attaining and maintaining nutrient-related water quality standards identified in 15A NCAC 02B .0211 throughout Falls Reservoir pursuant to G.S. 143-215.8B and 143B-282(c) and (d) of the Clean Water Responsibility Act of 1997. The Commission establishes a staged and adaptive implementation plan, outlined hereafter, to achieve the following objectives. The objective of Stage I is to, at minimum, achieve and maintain nutrient-related water quality standards in the Lower Falls Reservoir as soon as possible but no later than January 15, 2021 and to improve water quality in the Upper Falls Reservoir.

The objective of Stage II is to achieve and maintain nutrient-related water quality standards throughout Falls Reservoir. This is estimated to require a reduction of 40 and 77 percent in average annual mass loads of nitrogen and phosphorus respectively, delivered from the sources named in Item (6) in the Upper

Falls Watershed from a baseline of 2006. ~~The resulting Stage II allowable loads to Falls Reservoir from the watersheds of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of Reeds Creek shall be 658,000 pounds of nitrogen per year and 35,000 pounds of phosphorus per year.~~

~~(4)~~(5) STAGED IMPLEMENTATION. The Commission shall employ the staged implementation plan set forth below to achieve the goal of the Falls nutrient strategy:

(a) STAGE I. Stage I requires intermediate or currently achievable controls throughout the Falls watershed with the objective of reducing nitrogen and phosphorus loading, and attaining nutrient-related water quality standards in the Lower Falls Reservoir as soon as possible but no later than January 15, 2021, while also improving water quality in the Upper Falls Reservoir as described in this Item. Implementation timeframes are described in individual rules, with full implementation occurring no later than January 15, 2021;

(b) STAGE II. Stage II requires implementation of additional controls in the Upper Falls Watershed beginning no later than January 15, 2021 to achieve nutrient-related water quality standards throughout Falls Reservoir by 2041 to the maximum extent technically and economically feasible, with progress toward this overall objective as described in Sub-Item (5)(a); and

(c) MAINTENANCE OF ALLOCATIONS. Sources shall maintain the load reductions required under these Rules beyond the implementation stages.

~~(5)~~(6) ADAPTIVE IMPLEMENTATION. The Commission shall employ the following adaptive implementation plan in concert with the staged implementation approach described in this Rule:

(a) The Division shall perform water quality monitoring throughout Falls Reservoir and shall accept reservoir water quality monitoring data provided by other parties that meet Division standards and quality assurance protocols. The Division shall utilize this data to estimate load reduction achieved and to perform periodic use support assessments pursuant to 40 CFR 130.7(b). It shall evaluate use support determinations to judge progress on and compliance with the goal of the Falls nutrient strategy, including the following assessments:

~~(i) Attainment of nutrient-related water quality standards downstream of Highway NC 98 crossing of Falls Reservoir no later than January 15, 2016;~~

~~(ii)~~(i) Attainment of nutrient-related water quality standards in the Lower Falls Reservoir no later than January 15, 2021;

~~(iii)~~(ii) Attainment of nutrient-related water quality standards in the Lick Creek arm of Falls Reservoir and points downstream no later than January 15, 2026;

~~(iv)~~(iii) Attainment of nutrient-related water quality standards in the Ledge and Little Lick Creek arms of Falls Reservoir and points downstream no later than January 15, 2031;

~~(v)~~(iv) Attainment of nutrient-related water quality standards at points downstream of the Interstate 85 crossing of Falls Reservoir no later than January 15, 2036;

~~(vi)~~(v) Attainment of nutrient-related water quality standards throughout Falls Reservoir no later than 2041;

~~(vii)~~(vi) Where the Division finds that acceptable progress has not been made towards achieving nutrient-related water quality standards throughout Falls Reservoir defined in Sub-Items (i) through (vi) of this Item or that conditions have deteriorated in a segment of Falls Reservoir as described in this Item, at any time, it shall evaluate compliance with the Falls nutrient strategy rules, and may request Commission approval to initiate additional rulemaking;

~~(viii)~~(vii) Where the Division finds, based on reservoir monitoring, that nutrient-related water quality standards are attained in a previously impaired segment of Falls Reservoir, as described in this Item, and are met for sufficient time to demonstrate sustained maintenance of standards, as specified in individual rules of this strategy, it shall notify affected parties in that segment's watershed that further load reductions are not required and of requirements for maintenance of measures to prevent loading increases. Sufficient time is defined as at least two consecutive use support assessments demonstrating compliance with nutrient-related water quality standards in a given segment of Falls Reservoir.

(b) The Division, to address resulting uncertainties including those related to technological advancement, scientific understanding, actions chosen by affected parties, loading effects, and loading effects of other regulations, shall continue to report to the Commission and provide information to the public ~~in January 2016 and~~ every five years ~~thereafter~~ as ~~necessary.~~ necessary, making its next report in January 2021. The reports shall address all of the following subjects:

(i) Changes in nutrient loading to Falls Reservoir and progress in attaining nutrient-related water quality standards as described in Sub-Items (5)(a)(i) through (vi) of this Rule;

(ii) The state of wastewater and stormwater nitrogen and phosphorus control technology, including technological and economic feasibility;

(iii) Use and projected use of wastewater reuse and land application opportunities;

(iv) The utilization and nature of nutrient offsets and projected changes. This shall include an assessment of any load reduction value derived from preservation of existing forested land cover;

(v) Results of any studies evaluating instream loading changes resulting from implementation of rules;

(vi) Results of any studies evaluating nutrient loading from conventional septic systems and discharging sand filter systems;

(vii) Assessment of the instream benefits of local programmatic management measures such as fertilizer or pet waste ordinances, improved street sweeping and the extent to which local governments have implemented these controls;

(viii) Results of applicable studies, monitoring, and modeling from which a baseline will be established to address changes in atmospheric deposition of nitrogen;

(ix) Recent or anticipated changes in regulations affecting atmospheric nitrogen emissions and their projected effect on nitrogen deposition;

(x) Results of any studies evaluating nutrient loading from groundwater;

(xi) Updates to nutrient loading accounting tools; and

(c) The Division shall submit a report to the Commission in July 2025 that shall address the following subjects in addition to the content required elsewhere under this Item:

(i) The physical, chemical, and biological conditions of the Upper Falls Reservoir including nutrient loading impacts;

(ii) Whether alternative regulatory action pursuant to Sub-Item (5)(g) would be sufficient to protect existing uses as required under the Clean Water Act;

(iii) The impact of management of the Falls Reservoir on water quality in the Upper Falls Reservoir;

(iv) The methodology used to establish compliance with nutrient-related water quality standards in Falls Reservoir and the potential for using alternative methods;

(v) The feasibility of achieving the Stage II objective; and

(vi) The estimated costs and benefits of achieving the Stage II objective;

(d) The Division shall make recommendations, if any, on rule revisions based on the information reported pursuant to Sub-Items (b) and (c) of this Rule;

(e) In developing the reports required under Sub-Items (b) and (c) of this Rule, the Division shall consult with and consider information submitted by local governments and other persons with an interest in Falls Reservoir. Following receipt of a report, the Commission shall consider whether revisions to the requirements of Stage II are needed and may initiate rulemaking or any other action allowed by law;

(f) Recognizing the uncertainty associated with model-based load reduction targets, to ensure that allowable loads to Falls Reservoir remain appropriate as implementation proceeds, a person may at any time during implementation of the Falls nutrient strategy develop and submit for Commission approval supplemental nutrient response modeling of Falls Reservoir based on additional data collected after a period of implementation. The Commission may consider revisions to the requirements of Stage II based on the results of such modeling as follows:

(i) A person shall obtain Division review and approval of any monitoring study plan and description of the modeling framework to be used prior to commencement of such a

study. The study plan and modeling framework shall meet any Division requirements for data quality and model support or design in place at that time. Within 180 days of receipt, the division shall either approve the plan and modeling framework or notify the person seeking to perform the supplemental modeling of changes to the plan and modeling framework required by the Division;

(ii) Supplemental modeling shall include a minimum of three years of lake water quality data unless the person performing the modeling can provide information to the Division demonstrating that a shorter time span is sufficient;

(iii) The Commission may accept modeling products and results that estimate a range of combinations of nitrogen and phosphorus percentage load reductions needed to meet the goal of the Falls nutrient strategy ~~strategy, along with associated allowable loads to Falls Reservoir, from the watersheds of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of Reeds Creek and~~ that otherwise comply with the requirements of this Item. Such modeling may incorporate the results of studies that provide new data on various nutrient sources such as atmospheric deposition, internal loading, and loading from tributaries other than those identified in this Sub-item. The Division shall assure that the supplemental modeling is conducted in accordance with the quality assurance requirements of the Division;

(iv) The Commission shall review Stage II requirements if a party submits supplemental modeling data, products and results acceptable to the Commission for this purpose. Where supplemental modeling is accepted by the Commission, and results indicate ~~allowable loads of~~ nitrogen and phosphorus reduction goals ~~to~~ for loading to the Falls Reservoir ~~from the watersheds of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of Reeds Creek~~ that are substantially different than those identified in Item (3), then the Commission may initiate rulemaking to establish ~~those allowable loads as the~~ revised reduction goals for Stage II; ~~objective of Stage II relative to their associated baseline values;~~

(g) Nothing in this strategy shall be construed to limit, expand, or modify the authority of the Commission to undertake alternative regulatory actions otherwise authorized by state or federal law, including the reclassification of waters of the State pursuant to G.S. 143-214.1, the revision of water quality standards pursuant to G.S. 143-214.3, and the granting of variances pursuant to G.S. 143-215.3.

~~(6)~~(7) RULES ENUMERATED. The Falls nutrient strategy rules consists of the following rules titled as follows:

(a) Rule .0275 Purpose and Scope;

(b) Rule ~~.0276~~ .0263 Definitions. An individual rule may contain additional definitions for terms that are used in that rule only;

(c) Rule .0277 Stormwater Management for New Development;

(d) Rule .0278 Stormwater Management for Existing Development;

(e) Rule .0279 Wastewater Discharge Requirements;

(f) Rule .0280 Agriculture;

(g) Rule .0281 Stormwater Requirements for State and Federal Entities;

(h) Rule .0282 Options for Offsetting Nutrient Loads; and

(i) Rule .0315 Neuse River Basin.

~~(7)~~(8) APPLICABILITY. Categories of parties required to implement the Falls nutrient strategy rules and, as applicable, their geographic scope of responsibility, are identified in each rule. The specific local governments responsible for implementing Rules .0277, .0278, and .0282 shall be as follows:

(a) All incorporated municipalities, as identified by the Office of the Secretary of State, with planning jurisdiction within or partially within the Falls watershed. Those municipalities are currently:

(i) Butner;

(ii) Creedmoor;

(iii) Durham;

(iv) Hillsborough;

(v) Raleigh;

(vi) Roxboro;

(vii) Stem; and

(viii) Wake Forest;

(b) All counties with jurisdiction in Falls watershed and for land where municipalities listed in Sub-Item (7)(a) do not have an implementation requirement:

(i) Durham;

(ii) Franklin;

(iii) Granville;

(iv) Orange;

(v) Person; and

(vi) Wake;

(c) A unit of government may arrange through interlocal agreement or other instrument of mutual agreement for another unit of government to implement portions or the entirety of a program required or allowed under any rule of this strategy to the extent that such an arrangement is otherwise allowed by statute. The governments involved shall submit documentation of any

such agreement to the Division. No such agreement shall relieve a unit of government from its responsibilities under these Rules.

~~(8)~~(9) ENFORCEMENT. Failure to meet requirements of Rules .0275, .0277, .0278, .0279, .0280, .0281, or .0282 of this Section may result in imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).
Amended Eff. August 1, 2017.

15A NCAC 02B .0276 is proposed for repeal as follows:

15A NCAC 02B .0276 FALLS WATER SUPPLY NUTRIENT STRATEGY: DEFINITIONS

History Note: *Authority G.S. 143-214.1; 1432-214.3;143-214.5; 143-214.7; 143-215.1; 143215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L 2009-337; S.L 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).
Repealed Eff. August 1, 2017.

15A NCAC 02B .0277 is proposed for amendment as follows:

15A NCAC 02B .0277 FALLS RESERVOIR WATER SUPPLY NUTRIENT STRATEGY: STORMWATER MANAGEMENT FOR NEW DEVELOPMENT

The following is the stormwater strategy, as prefaced in 15A NCAC 02B .0275, for new development ~~activities~~ products within the Falls watershed:

(1) PURPOSE. The purposes of this Rule are as follows:

(a) To achieve and maintain the nitrogen and phosphorus loading objectives established for Falls Reservoir in 15A NCAC 02B .0275 from lands in the Falls watershed on which new development occurs;

(b) To provide control for stormwater runoff from new development in Falls watershed to ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows; and

(c) To protect the water supply, aquatic life and recreational uses of Falls Reservoir from the potential impacts of new development.

(2) APPLICABILITY. This Rule shall apply to those areas of new development that lie within the Falls watershed and the planning jurisdiction of a municipality or county that is identified in 15A NCAC 02B .0275. ~~This Rule shall not apply to development activities on state and federal lands that are set out in Rule .0281 of this Section.~~

(3) REQUIREMENTS. ~~All local governments subject to this Rule shall develop stormwater management programs for submission to and approval by the Commission, to be implemented in areas described in Item (2) of this Rule.~~ Local governments shall implement stormwater management programs according to their plans approved by the Commission in January 2012 that include the following elements and standards contained in Item (4) of this Rule:~~Nothing in this Rule preempts local governments from establishing requirements that are more restrictive than those set forth in this Rule. Local government stormwater management programs shall include the following elements and the standards contained in Item (4):~~

(a) The requirement that a stormwater management plan shall be submitted for local government approval based on the standards in Item (4) for all proposed new development disturbing one-half acre or more for single family and duplex residential property and recreational facilities, and 12,000 square feet or more for commercial, industrial, institutional, multifamily residential, or local government property;

(b) A plan to ensure maintenance of best management practices (BMPs) implemented to comply with this rule for the life of the ~~development; and~~ development;

(c) A plan to ensure enforcement and compliance with the provisions in Item (4) of this Rule for the life of the new ~~development.~~development; and

(d) Nothing in this Rule preempts local governments from implementing requirements that are more restrictive than those set forth in this Rule.

(4) PLAN APPROVAL REQUIREMENTS. A developer's stormwater plan shall not be approved by a subject local government unless the requirements of Item (3) and the following criteria are met:

(a) Nitrogen and phosphorus loads contributed by the proposed new development ~~activity~~product shall not exceed the following unit-area mass loading rates for nitrogen and phosphorus, respectively, expressed in units of pounds/acre/year: 2.2 and 0.33. Proposed development that would replace or expand structures ~~or improvements~~ that existed as of December 2006, the end of the baseline period, and that would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high-density requirements except to the extent that the developer shall provide stormwater control at least equal to the previous development. ~~Proposed development that would replace or expand existing structures or improvements and would result in a net increase in built-upon area shall have the option either to achieve at least the percentage loading reduction objectives stated in 15A NCAC 02B .0275 as applied to nitrogen and phosphorus loading from the previous development for the entire project site, or to meet the loading rate targets described in this Item. These requirements shall supersede those identified in 15A NCAC 02B .0104(q). The developer shall determine the load reductions needed to meet these loading rate targets by using the loading calculation method called for in Sub-Item (5)(a) or other equivalent method acceptable to the Division;~~

(b) Proposed development that would replace or expand existing structures and would result in a net increase in built-upon area shall treat the net increase and shall have the option to achieve either the percentage loading reduction objectives stated in 15A NCAC 02B .0275 or to meet the loading rate targets described in this Item. These requirements shall supersede those identified in 15A NCAC 02B .0104(q). The developer shall determine the load reductions needed to meet these loading rate targets by using the loading calculation method called for in Sub-Item (5)(a) or other equivalent method acceptable to the Division;

~~(b)~~(c) The developer shall have the option of offsetting part of the nitrogen and phosphorus load by implementing or funding offsite offset measures. Before using an offsite offset option, a development shall implement onsite structural stormwater controls that achieve one of the following levels of reductions:

(i) Proposed new development ~~activity~~ products disturbing at least one-half acre but less than one acre of land for single family and duplex residential property and recreational facilities, except as stated in Sub-Item ~~(4)(b)(iv),~~(4)(c)(iv) shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item ~~(4)(e)~~(4)(f) of this Rule;

(ii) Proposed new development ~~activity~~ products disturbing at least 12,000 but less than one acre of land for commercial, industrial, institutional, multifamily residential, or local government property, except as stated in Sub-Item ~~(4)(b)(iv),~~(4)(c)(iv) shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item (4)(e) of this Rule;

(iii) Except as stated in Sub-Item ~~(4)(b)(iv),~~(4)(c)(iv) proposed new development ~~activity~~ products that disturbs one acre of land or more shall achieve 50 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in Sub-Item ~~(4)(e)~~(4)(f) of this Rule; or

(iv) Proposed development that would replace or expand structures or improvements that existed as of December 2006 and that increases impervious surface within a local government's designated downtown area, regardless of area disturbed, shall achieve 30 percent of the needed load reduction in both nitrogen and phosphorus onsite, and shall meet any requirements for engineered stormwater controls described in Sub-Item ~~(4)(e)~~(4)(f) of this Rule;

~~(c)~~(d) Offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with the loading rate targets set out in Sub-Item (4)(a) of this Item. ~~A developer may use any measure that complies~~ Offsetting reductions shall be perpetual in nature. The developer may use any practice that complies with the requirements of ~~Rules~~ Rule .0240 ~~and~~ or .0282. of this Section;

~~(d)~~(e) Proposed new development subject to NPDES, water supply, and other state-mandated stormwater regulations shall comply with those regulations in addition to the other requirements of this Sub-item. Proposed new development in any water supply watershed in the Falls watershed designated WS-II, WS-III, or WS-IV shall comply with the density-based restrictions, obligations, and requirements for engineered stormwater controls, clustering options, operation and maintenance responsibilities, vegetated setbacks, land application, and landfill provisions described in Sub-Items (3)(b)(i) and (3)(b)(ii) of the applicable rule among 15A NCAC 02B .0214 through .0216. Provided, the allowance in water supply watershed rules for 10 percent of a jurisdiction to be developed at up to 70 percent built-upon area without stormwater treatment shall not be available in the Falls watershed;

~~(e)~~(f) Stormwater systems shall be designed to control and treat at a minimum the runoff generated by one inch of rainfall from all surfaces ~~in the project area~~ draining to the BMP. ~~by one inch of rainfall.~~ The treatment volume shall be drawn down pursuant to standards specific to each practice as provided in the ~~July 2007~~ most recent version of the *Stormwater Best Management*

Practices Manual published by the ~~Division,~~DEMLR, or other at least technically equivalent standards acceptable to the Division;

~~(f)~~(g) To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows, at a minimum, ~~the new development shall not result in a net increase in peak flow leaving the site from pre-development conditions for the one-year, 24-hour storm event;~~ net increase in peak flow leaving the site from the predevelopment condition for the 1-year, 24-hour storm shall not exceed 10 percent;

~~(g)~~(h) New development may satisfy the requirements of this Rule by demonstrating pre and post development runoff volume matching through the use of an accounting tool approved by the Division that estimates the effect of Low Impact Development techniques utilizing the most recent research data available for runoff and effluent of LID techniques and hydraulic and hydrologic performance of best management practices; ~~by meeting the post-development hydrologic criteria set out in Chapter 2 of the North Carolina Low Impact Development Guidebook dated June 2009, or the hydrologic criteria in the most recent version of that guidebook;~~

~~(h)~~(i) Proposed new development shall demonstrate compliance with the riparian buffer protection requirements of 15A NCAC 02B .0233 and .0242 or subsequent amendments or replacements to those requirements.

(5) RULE IMPLEMENTATION. ~~This Rule shall be implemented as follows:~~

(a) ~~No later than March 15, 2011, the Division shall submit a model local stormwater program, including a model local ordinance that embodies the criteria described in Items (3) and (4) of this Rule to the Commission for approval.~~ Local governments shall continue to implement their stormwater management programs as approved by the Commission in March 2011 or any subsequent significant modifications to those programs approved by the Director based on standards set out in Items (3) and (4) of this Rule. ~~The model program shall include a tool that will allow developers to account for nutrient loading from development lands and loading changes due to BMP implementation to meet the requirements of Items (3) and (4) of this Rule. The accounting tool shall utilize nutrient efficiencies and associated design criteria established for individual BMPs in the July 2007 version of the Stormwater Best Management Practices Manual published by the Division, or other more precise standards acceptable to the Division. At such time as data quantifying nutrient loads from onsite wastewater systems is made available, the new development nutrient export accounting tool shall be revised to require accounting for nutrient loading from onsite wastewater from newly developed lands that use such systems. Should research quantify significant loading from onsite wastewater systems, the Division may also make recommendations to the Commission for Public Health to initiate rulemaking to reduce nutrient loading to surface waters from these systems. The Division shall~~

~~work in cooperation with subject local governments and other watershed interests in developing this model program;~~

(b) Any significant modifications to a local government's program shall be submitted to the Director for approval.

(c) At such time as data quantifying nutrient loads from onsite wastewater systems is made available, the new development nutrient export accounting tool shall be revised to require accounting for nutrient loading from onsite wastewater from newly developed lands that use such systems. Should research quantify significant loading from onsite wastewater systems, the Division may also make recommendations to the Commission for Public Health to initiate rulemaking to reduce nutrient loading to surface waters from these systems.

(d) Upon implementation, subject local governments shall submit annual reports to the Division summarizing their activities in implementing each of the requirements in Items (3) and (4) of this Rule, including changes to nutrient loading.

~~(b) Within five months after the Commission's approval of the model local stormwater program and model ordinance, subject local governments shall submit stormwater management programs, in conjunction with similar requirements in 15A NCAC 02B .0278, to the Division for preliminary approval. These local programs shall meet or exceed the requirements in Items (3) and (4) of this Rule;~~

~~(c) Within 10 months after the Commission's approval of the model local stormwater program, the Division shall provide recommendations to the Commission on local stormwater programs. The Commission shall either approve the programs or require changes based on the standards set out in Items (3) and (4) of this Rule. Should the Commission require changes, the applicable local government shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;~~

~~(d) Within six months after the Commission's approval of a local program, or upon the Division's first renewal of a local government's NPDES stormwater permit, whichever occurs later, the affected local government shall complete adoption of and implement its local stormwater management program; and~~

~~(e) Upon implementation, subject local governments shall submit annual reports to the Division summarizing their activities in implementing each of the requirements in Items (3) and (4) of this Rule, including changes to nutrient loading.~~

~~(6) EQUIVALENT PROGRAM OPTION. A local government may in its program submittal under Sub-Item (5)(b) of this Rule request that the Division accept the local government's implementation of another stormwater program or programs as satisfying one or more of the requirements set forth in Items (3) and (4) of this Rule. The Division shall provide determination on the acceptability of any such alternative prior to requesting Commission approval of local programs as required in Sub-Item (5)(c) of this Rule.~~

~~Should a local government propose alternative requirements to achieve and maintain the rate targets described in Sub-Item (4)(a) of this Rule, it shall include in its program submittal technical information demonstrating the adequacy of those requirements. Should an alternative program propose monitoring of watersheds to compare measured loading to expected loading, it shall at a minimum include the following:~~

~~(a) Engineering calculations that quantify expected loading from new development projects based on stormwater controls currently enforced;~~

~~(b) At least three years of continuous flow and nutrient monitoring data demonstrating that watershed loading rates are at or below rates that would result from meeting the requirements of this Rule and Rule .0278 of this Section based on the land cover composition of the watershed;~~

~~(c) An ongoing water quality monitoring program based on continuous flow and concentration sampling to be performed indefinitely into the future with results reported annually to the Division for review and approval;~~

~~(d) A corrective action plan to be implemented should data collected under the ongoing monitoring program demonstrate watershed loading is within 10 percent of the rate estimated in compliance with this Item; and~~

~~(e) Should a local government submit an alternate program for consideration that includes areas within its jurisdiction outside of the monitored watershed it shall submit technical information demonstrating the areas outside of the monitored watershed can reasonably be expected to load at equal or lesser rates than those estimated in compliance with this Item based on comparative analysis of land uses and other factors affecting nutrient loading~~.

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).
Amended Eff. August 1, 2017.

15A NCAC 02B .0278 is proposed for amendment as follows:

15A NCAC 02B .0278 FALLS WATER SUPPLY NUTRIENT STRATEGY: STORMWATER MANAGEMENT FOR EXISTING DEVELOPMENT

This Rule establishes a staged, adaptive approach by which municipalities and counties shall contribute to achieving the nonpoint source loading objectives of the Falls Reservoir nutrient strategy by reducing or otherwise offsetting nutrient contributions from existing development. It provides local governments five years ~~three years~~ to develop programs that propose Stage I load reduction actions to the Division and requires local governments to begin and track measures to reduce nutrient loads from existing developed lands within their jurisdiction by ~~January 15, 2014,~~ June 2017, as specified in Item (7). Local governments shall submit for approval and implement Stage II load reduction programs by January 2021 ~~January 15, 2021~~ and submit revised load reductions programs every five years thereafter. The following is the watershed stormwater strategy, as prefaced in Rule 15A NCAC 02B .0275, for existing development in the Falls watershed:

(1) PURPOSE. The purposes of this Rule are as follows:

(a) To achieve and maintain the nonpoint source nitrogen and phosphorus percentage reduction objectives established for Falls Reservoir in Rule 15A NCAC 02B .0275 on nutrient loading from existing development in the Falls watershed relative to the baseline period defined in that ~~rule. Existing development is defined in Rule 15A NCAC 02B .0276;~~ rule; and

(b) To protect the water supply, aquatic life, and recreational uses of Falls Reservoir.

(2) APPLICABILITY. This Rule shall apply to municipalities and counties in the Falls watershed as identified in Rule 15A NCAC 02B .0275.

(3) DEFINITIONS. For the purposes of this Rule, the definitions in 15A NCAC 02B .0275 and the following definition apply:

(a) "Existing Development" means structures and other land modifications resulting from development activities, other than those associated with agriculture or forest management activities, that meet the following criteria:

(i) For projects that do not require a state permit, they are in place or have established a vested right based on statutory or common law as interpreted by the courts, as of the effective date of local new development stormwater programs implemented under Rule .0277 of this Section; and

(ii) For projects that require a state permit, they are in place as of the applicable compliance date established in Rule .0281 of this Section; and

(ii) They are not replaced by structures or other land modifications resulting from development activities that occur after the applicable date referenced elsewhere in this sub-paragraph.

(b) "New Development" means any development that does not meet the definition of existing development in the Rule.

~~(3)~~(4) STAGED AND ADAPTIVE IMPLEMENTATION REQUIREMENTS. Local governments shall employ the following staged and adaptive implementation program. All local governments subject to this Rule shall develop load-reducing programs for submission to and approval by the Commission that include the following staged elements and meet the associated minimum standards for each stage of implementation:

(a) In Stage I, a local government subject to this Rule shall implement a load reduction program that provides estimates of, and plans for offsetting by calendar year 2020, nutrient loading increases from lands developed subsequent to the baseline period and not subject to the requirements of the local government's Falls Lake new development stormwater program. For these post-baseline existing developed lands, the current loading rate shall be compared to the loading rate for these lands prior to development for the acres involved, and the difference shall constitute the load reduction need in annual mass load, in pounds per year. Alternatively, a local government may assume uniform pre-development loading rates of 2.89 pounds/acre/year N and 0.63 pounds/acre/year P for these lands. The local government shall achieve this Stage I load reduction by calendar year 2020. This Stage I program shall meet the criteria defined in Item (4) of this Rule;

(b) By ~~January 15, 2021~~ January 2021 and every five years thereafter, a local government located in the Upper Falls Watershed shall submit and begin implementing a Stage II load reduction program that meets the following requirements:

(i) If a local government achieves the Stage I reduction objectives described in this Item, a local government's initial Stage II load reduction program shall, at the local government's election, either (A) achieve additional annual reductions in nitrogen and phosphorus loads from existing development greater than or equal to the average annual additional reductions achieved ~~in the last seven years of~~ during Stage I or (B) provide for an annual expenditure that equals or exceeds the average annual amount the local government has spent to achieve nutrient reductions from existing development during ~~the last seven years of~~ Stage I. A local government's expenditures shall include all local government funds, including any state and federal grant funds used to achieve nutrient reductions from existing developed lands. The cost of achieving reductions from municipal wastewater treatment plants shall not be included in calculating a local government's expenditures. Notwithstanding this requirement, the EMC may approve an initial Stage II load reduction program based on a lower annual level of reduction or a lower annual level of expenditure if the local government demonstrates that continuing the prior annual level of reduction or annual level of expenditure is not reasonable or cost-effective given the reductions that will be

achieved, or the expenditure would cause serious financial hardship to the local government;

(ii) If Stage I reduction objectives are not achieved, a local government's initial Stage II load reduction program shall, at the local government's election, either (A) achieve additional annual reductions in nitrogen and phosphorus loads from existing development greater than or equal to the ~~average annual additional~~ annual reductions achieved in the highest ~~three years~~ single year of implementation of Stage I or (B) provide for an annual expenditure that equals or exceeds the ~~average~~ ~~annual~~ amount the local government has spent to achieve nutrient reductions from existing development during the highest ~~three years~~ single year of implementation of Stage I. Annual expenditures shall be calculated in accordance with Sub-Item ~~(3)(b)(i)~~ (4)(b)(i)of this Item;

(iii) Subsequent five year programs shall be designed to achieve the Stage II percent load reduction goals from existing developed lands in a local government's jurisdiction, shall include timeframes for achieving these goals and shall meet the requirements of Item ~~(4)~~(5) of this Rule;

~~(4)~~(5) ELEMENTS OF LOAD REDUCTION PROGRAMS. A local government's Stage I and Stage II load reduction program shall address the following elements:

(a) Jurisdictions in the Eno River and Little River subwatersheds shall, as a part of their Stage I load reduction programs, begin and continuously implement a program to reduce loading from discharging sand filters and malfunctioning septic systems discharging into waters of the State within those jurisdictions and subwatersheds;

(b) Jurisdictions within any Falls subwatershed in which chlorophyll a levels have exceeded 40 micrograms/liter in more than seventy-five percent of the monitoring events in any calendar year shall, as part of their Stage I load reduction programs, begin and continuously implement a program to reduce nutrient loading into the waters of the State within those jurisdictions and that ~~subwatersheds;~~ subwatershed;

~~(c) The total amount of nutrient loading reductions in Stage I is not increased for local jurisdictions by the requirements to add specific program components to address loading from malfunctioning septic systems and discharging sand filters or high nutrient loading levels pursuant to Sub-Items (4)(a) and (b) of this Item;~~

~~(d) In preparation for implementation of their Stage I and Stage II load reduction programs, local governments shall develop inventories and characterize load reduction potential to the extent that accounting methods allow of the following by January 2013:~~

~~(i) Wastewater collection systems;~~

~~(ii) Discharging sand filter systems, including availability of or potential for central sewer connection;~~

~~(iii) Properly functioning and malfunctioning septic systems;~~

~~(iv) Restoration opportunities in utility corridors;~~

~~(v) Fertilizer management plans for local government-owned lands;~~

~~(vi) Structural stormwater practices, including intended purpose, condition, potential for greater nutrient control; and~~

~~(vii) Wetlands and riparian buffers including potential for restoration opportunities;~~

~~(e)~~(c) A local government's load reduction need shall be based on the developed lands that fall within its general police powers and within the Falls watershed;

~~(f)~~(d) The load reduction need shall not include lands under state or federal control, and a county shall not include lands within its jurisdictional boundaries that are under municipal police powers;

~~(g)~~(e) Nitrogen and phosphorus loading from existing development, including loading from onsite wastewater treatment systems to the extent that accounting methods allow, shall be calculated by applying the accounting tool described in Sub-Item ~~(7)(a)~~(8)(a) and shall quantify baseline loads of nitrogen and phosphorus to surface waters in the local government's jurisdiction as well as loading changes post-baseline. It shall also calculate target nitrogen and phosphorus loads and corresponding load reduction needs;

~~(h)~~(f) The Commission shall recognize reduction credit for early implementation of policies and practices implemented after January 1, 2007 and before timeframes required by this Rule, to reduce runoff and discharge of nitrogen and phosphorus per Session Law 2009-486. The load reduction program shall identify specific load-reducing practices implemented to date subsequent to the baseline period and for which the local government is seeking credit. It shall estimate load reductions for these practices and their anticipated duration using methods provided for in Sub-Item ~~(5)(a);~~(6)(a);

~~(i)~~(g) The program shall include a proposed implementation schedule that includes annual implementation expectations. The load reduction program shall identify the types of activities the local government intends to implement and types of existing development affected, a prioritization of practices, magnitude of reductions it expects to achieve from each, and the costs and efficiencies of each activity to the extent information is available. The program shall identify the duration of anticipated loading reductions, and may seek activities that provide long-term reductions;

~~(j)~~(h) The load reduction program shall identify anticipated funding mechanisms or sources and discuss steps take or planned to secure such funding;

~~(k)~~(i) The program shall address the extent of load reduction opportunities intended from the following types of lands:

(i) Lands owned or otherwise controlled by the local government;

(ii) Each land use type of privately owned existing development including projected redevelopment, on which the local government's load reduction need is based as described in this Item; and

(iii) Lands other than those on which the local government's load reduction need is based as described in this Item, including lands both within and outside its jurisdiction and including the use of interlocal agreements and public or private third party sellers;

(j) The program shall address the extent of load reduction opportunities from the following types of practices either included in the model program or subsequently approved by the Director according to Sub-Item (8)(b):

(i) Stormwater and ecosystem practices;

(ii) Onsite and municipal wastewater practices; and

(iii) Other practices, measures, and activities for which accounting methods acceptable to the Division can be provided.

~~(l) The program shall address the extent of load reduction proposed from the following from stormwater and ecosystem restoration activities:~~

~~(i) Bioretention;~~

~~(ii) Constructed wetland;~~

~~(iii) Sand filter;~~

~~(iv) Filter strip;~~

~~(v) Grassed swale;~~

~~(vi) Infiltration device;~~

~~(vii) Extended dry detention;~~

~~(viii) Rainwater harvesting system;~~

~~(ix) Treatment of redevelopment;~~

~~(x) Overtreatment of new development;~~

~~(xi) Removal of impervious surface;~~

~~(xii) Retrofitting treatment into existing stormwater ponds;~~

~~(xiii) Off-line regional treatment systems;~~

~~(xiv) Wetland or riparian buffer restoration; and~~

~~(xv) Reforestation with conservation easement or other protective covenant;~~

~~(m) The program shall evaluate the load reduction potential from the following wastewater activities:~~

~~(i) Creation of surplus relative to an allocation established in Rule 15A NCAC 02B .0279;~~

~~(ii) Expansion of surplus allocation through regionalization;~~

~~(iii) Connection of discharging sand filters and malfunctioning septic systems to central sewer or replacement with permitted non-discharge alternatives;~~

~~(iv) Removal of illegal discharges; and~~

~~(v) Improvement of wastewater collection systems;~~

~~(n) A local government may propose in its load reduction program the use of the following measures in addition to items listed (l) and (m), or may propose other measures for which it can provide accounting methods acceptable to the Division:~~

~~(i) Redirecting runoff away from impervious surfaces;~~

~~(ii) Soil amendments;~~

~~(iii) Stream restoration;~~

~~(iv) Improved street sweeping; and~~

~~(v) Source control, such as pet waste and fertilizer ordinances;~~

~~(o)~~(k) The program shall include evaluation of load reduction potential relative to the following factors:

(i) Extent of physical opportunities for installation;

(ii) Landowner acceptance;

(iii) Incentive and education options for improving landowner acceptance;

(iv) Existing and potential funding sources and magnitudes;

(v) Practice cost-effectiveness (e.g., cost per pound of nutrient removed);

(vi) Increase in per capita cost of a local government's stormwater management program to implement the program;

(vii) Implementation rate without the use of eminent domain; and

(viii) Need for and projected role of eminent domain;

~~(5)~~(6) The Commission shall approve a Stage I load reduction program if it is consistent with Items ~~(3)~~(4) and ~~(4)~~(5) of this Rule. The Commission shall Approve a Stage II load reduction program if it is consistent with Items ~~(3)~~(4) and ~~(4)~~(5) of this Rule unless the Commission finds that the local governments can, through the implementation of reasonable and cost-effective measures not included in the proposed program, meet the Stage II nutrient load reductions required by this Rule by a date earlier than that proposed by the local government. If the Commission finds that there are additional or alternative reasonable and cost-effective measures, the Commission may require the local government to modify its proposed program to include such measures to achieve the required reductions by the earlier date. If the Commission requires such modifications, the local government shall submit a modified program within two months. The Division shall recommend that the Commission approve or disapprove the modified program within three months after receiving the modified program. In determining whether additional or alternative load reduction measures are reasonable and cost effective, the Commission shall consider

factors identified in Sub-Item ~~(4)(o)~~ (5)(k) of this Rule. The Commission shall not require additional or alternative measures that would require a local government to:

(a) Install or require installation of a new stormwater collection system in an area of existing development unless the area is being redeveloped;

(b) Acquire developed private property; or

(c) Reduce or require the reduction of impervious surfaces within an area of existing development unless the area is being redeveloped.

~~(6) A municipality shall have the option of working with the county or counties in which it falls, or with another municipality or municipalities within the same subwatershed, to jointly meet the loading targets from all lands within their combined jurisdictions within a subwatershed. A local government may utilize private or third party sellers. All reductions involving trading with other parties shall meet the requirements of Rule 15A NCAC 02B .0282.~~

(7) A local government may obtain reductions through other means within its subwatershed in addition to its implementation of practices on lands within its jurisdiction. Other means include:

(a) A municipality or county may work with other municipalities or counties within the same subwatershed to jointly meet the loading targets from all lands within their combined jurisdiction within a subwatershed;

(b) A local government may combine nutrient load allocations established for its NPDES discharges in Rule .0279 of this Section with those assigned to it for existing developed lands in this Rule into one set of allocations and meet them jointly;

(c) Purchase of nutrient offset credits pursuant to G.S. 143-214.26 and Rules .0240 of this Section; and

(d) Other forms of trading pursuant to Rule .0273 of this Section.

~~(7)~~(8) RULE IMPLEMENTATION. This Rule shall be implemented as follows:

(a) By ~~July 2013,~~March 2017 the Division shall submit a Stage I model local program to the Commission for approval that embodies the criteria described in Items ~~(3)(a)~~(4)(a) and ~~(4)~~(5) of this Rule. The Division shall work in cooperation with subject local governments and other watershed interests in developing this model program, which shall include the following:

(i) Model local ordinances as applicable;

(ii) Methods to quantify load reduction requirements and resulting load reduction assignments for individual local governments;

(iii) Methods to account for discharging sand filters, malfunctioning septic systems, and leaking collection ~~systems; and~~ systems.

~~(iv) Methods to account for load reduction credits from various activities;~~

(b) The Division shall include with the model program supporting information for local governments, which shall include:

(i) Identification of the set of nutrient-reducing practices currently approved by the division for use toward compliance with this rule, along with identification of relevant documents establishing design standards and credit methods; and

(ii) Explanation of the process to be used for adjusting load allocations and reduction needs to account for existing practices and changes in jurisdictional limits since baseline and into the future, as well as the process used by the Division for approving additional measures for use under this Rule.

~~(b)~~(c) Within six months after the Commission's approval of the Stage I model local program, subject local governments shall submit load reduction programs that meet or exceed the requirements of Items ~~(3)~~(4) and ~~(4)~~(5) of this Rule to the Division for review and preliminary approval and shall begin implementation and tracking of measures to reduce nutrient loads from existing developed lands within their jurisdictions;

~~(c)~~(d) Within ~~20~~ 12 months of the Commission's approval of the Stage I model local program, the Division shall provide recommendations to the Commission on existing development load reduction programs. The Commission shall either approve the programs or require changes based on the standards set out in Item ~~(4)~~(5) of this Rule. Should the Commission require changes, the applicable local government shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

~~(d)~~(e) Within three months after the Commission's approval of a Stage I local existing development load reduction program, the local government shall complete adoption of and begin implementation of its approved existing development Stage I load reduction program;

~~(e)~~(f) Upon implementation of the programs required under Item ~~(4)~~(5) of this Rule, local governments shall provide annual reports to the Division documenting their progress in implementing those requirements within three months following each anniversary of program implementation date until such time the Commission determines they are no longer needed to ensure maintenance of reductions or that standards are protected. Annual reports shall include accounting of total annual expenditures, including local government funds and any state and federal grants used toward load reductions achieved from existing developed lands. Local governments shall indefinitely maintain and ensure performance of implemented load-reducing measures;

Note: The Division seeks public comment concerning alternative timelines for implementation of a local government Stage II load reduction programs per Sub-Item (8)(g) considering the proposed timeline revision for the Stage I Model Program in Sub-Item (8)(a) of this rule.

~~(f)~~(g) By ~~January 15, 2021~~January 2021 and every five years thereafter until accounting determines that assigned load reductions have been achieved, standards are met in the lake, or the Commission takes other actions per Rule 15A NCAC 02B .0275, local governments located in the upper Falls watershed as defined in Item ~~(3)~~(4) of Rule 15A NCAC 02B .0275 shall submit and begin implementation of a Stage II load reduction program or program revision to the Division. Within nine months after submittal, the Division shall make recommendations to the Commission on approval of these programs. The Commission shall either approve the programs or require changes based on the standards set out in this Rule. If the Commission require changes, the applicable local governments shall submit revisions within two months, and the Division shall provide follow-up recommendations to the Commission within three months after receiving revisions. Upon program approval, local governments shall revise implementation as necessary based on the approved program;

~~(g)~~(h) A local government may, at any time after commencing implementation of its load reduction program, submit program revisions to the Division for approval based on identification of more cost-effective strategies or other factors not originally recognized;

~~(h)~~(i) Once either load reductions are achieved per annual reporting or water quality standards are met in the lake per Rule 15A NCAC 02B .0275, local governments shall submit programs to ensure no load increases and shall report annually per Sub-Item ~~(e)~~ (f) on compliance with no increases and take additional actions as necessary;

~~(i)~~(j) At least every five years after the effective date, the Division shall review the accounting methods stipulated under Sub-Item ~~(7)(a)~~(8)(a) to determine the need for revisions to those methods and to loading reductions assigned using those methods. Its review shall include values subject to change over time independent of changes resulting from implementation of this Rule, such as untreated export rates that may change with changes in atmospheric deposition. It shall also review values subject to refinement, such as nutrient removal efficiencies.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).
Amended Eff. August 1, 2017.

15A NCAC 02B .0280 is proposed for amendment as follows:

15A NCAC 02B .0280 FALLS RESERVOIR WATER SUPPLY NUTRIENT STRATEGY: AGRICULTURE

This Rule sets forth a staged process, as prefaced in ~~15A NCAC 02B.0275,~~ Rule .0275 of this Section, by which agricultural operations in the Falls watershed will collectively limit their nitrogen and phosphorus loading to the Falls Reservoir. This process is as follows:

(1) PURPOSE. The purposes of this Rule are to achieve and maintain the percentage reduction objectives defined in ~~15A NCAC 02B~~ Rule .0275 of this Section for the collective agricultural loading of nitrogen and phosphorus from their respective 2006 baseline levels, to the extent that best available accounting practices will allow, on all lands used for agricultural production as described in Item (4) of this Rule, in two stages. Stage I shall be 10 years and Stage II shall be 15 years, as set out in Item (5) of this Rule. Additionally this Rule will protect the water supply uses of the Falls Reservoir.

(2) PROCESS. This Rule requires accounting for agricultural land management practices at the county level in the Falls watershed, and implementation of practices by farmers to collectively achieve the nutrient reduction objectives on a watershed basis. Producers may be eligible to obtain cost share and technical assistance from the NC Agriculture Cost Share Program and similar federal programs to contribute to their counties' nutrient reductions. A Watershed Oversight Committee and Local Advisory Committees will develop strategies, coordinate activities, and account for progress.

(3) LIMITATION. This Rule does not fully address significant agricultural nutrient sources in that it does not directly address atmospheric sources of nitrogen to the Falls watershed from agricultural operations located both within and outside of the Falls watershed. As better information becomes available from ongoing research on atmospheric nitrogen loading to the Falls watershed from these sources, and on measures to control this loading, the Commission may undertake separate rule-making to require such measures it deems necessary from these sources to support the objectives of the Falls Nutrient Strategy.

(4) APPLICABILITY. This Rule shall apply to all persons engaging in agricultural operations in the Falls watershed, including those related to crops, horticulture, livestock, and poultry. This Rule applies to livestock and poultry operations above the size thresholds in this Item in addition to requirements for animal operations set forth in general permits issued pursuant to G.S. 143-215.10C. Nothing in this Rule shall be deemed to allow the violation of any assigned surface water, groundwater, or air quality standard by any agricultural operation, including any livestock or poultry operation below the size thresholds in this Item. This Rule shall not apply to dedicated land application sites permitted under 15A NCAC 02T .1100. This Rule does not require specific actions by any individual person or operation if agriculture in the Falls watershed can collectively achieve its Stage I nutrient reduction objectives, in the manner described in Item (5) of this Rule, by calendar year 2020. If the Stage I nutrient reduction objectives are not met by calendar year 2020, Stage II of implementation shall require specific actions by individuals

and operations. For the purposes of this Rule, agricultural operations are activities that relate to any of the following pursuits:

(a) The commercial production of crops or horticultural products other than trees. As used in this Rule, commercial shall mean activities conducted primarily for financial profit.

(b) Research activities in support of such commercial production.

(c) The production or management of any of the following number of livestock or poultry at any time, excluding nursing young:

(i) Five or more horses;

(ii) 20 or more cattle;

(iii) 20 or more swine not kept in a feedlot, or 150 or more swine kept in a feedlot;

(iv) 120 or more sheep;

(v) 130 or more goats;

(vi) 650 or more turkeys;

(vii) 3,500 or more chickens; or

(viii) Any single species of any other livestock or poultry, or any combination of species of livestock or poultry that exceeds 20,000 pounds of live weight at any time.

(5) METHOD FOR RULE IMPLEMENTATION. This Rule shall be implemented in two stages and through a cooperative effort between the Watershed Oversight Committee and Local Advisory Committees in each county. The membership, roles and responsibilities of these committees are set forth in Items (7) and (8) of this Rule. Committee's activities shall be guided by the following:

(a) In Stage I, agriculture shall achieve a collective 20 percent reduction in nitrogen ~~loading and a 40 percent reduction in phosphorus loading~~ loss relative to the 2006 baseline by calendar year 2020.

(b) In Stage II, beginning in calendar year 2021 agriculture shall achieve a collective 40 percent reduction in nitrogen ~~loading and a 77 percent reduction in phosphorus loading~~ loss relative to the 2006 baseline by calendar year 2035.

~~(c) By January 15, 2013, the Watershed Oversight Committee shall provide the Commission with an initial assessment of the extent to which agricultural operations in the Falls watershed have achieved the Stage I nitrogen and phosphorus reduction objectives identified in Item (1) of this rule through activities conducted since the baseline period. The Watershed Oversight Committee shall use the accounting process described in Items (7) and (8) of this rule to make its assessment.~~

~~(d)~~ (c) If annual reporting ~~following the 10th year of~~ for calendar year 2020 implementation indicates that agriculture has not collectively achieved its Stage I nitrogen ~~and phosphorus~~ reduction ~~objectives~~ objective identified in this Item, Stage II shall include specific implementation requirements for individual operators. Specifically, within five years of the start of Stage II,

cropland operators shall establish vegetated riparian buffers adjacent to streams on all cropland where such buffers do not already exist. Additionally, pastured livestock operators shall establish excluded vegetated riparian buffers adjacent to streams where such excluded buffers do not already exist. Streams to which these requirements apply shall be those that meet the classification of intermittent or perennial streams using the September 2010 version of the *Identification Methods for the Origins of Intermittent and Perennial Streams Manual* published by the Division. Existing and newly established riparian buffers shall be a minimum of 20 feet in width with criteria further defined by the Watershed Oversight Committee.

The Commission may also consider alternative ~~recommendations~~ recommendations, which may include plans developed for each county, from the Watershed Oversight Committee based on the Committee's assessment of the practicability of agricultural operations meeting the Stage I objectives. Should the Commission accept some alternative form of individual compliance, then it shall also subsequently approve a framework proposed by the Watershed Oversight Committee for allowing producers to obtain credit through offsite measures. Such offsite measures shall meet the requirements of ~~15A NCAC 02B .0282.~~ Rule .0240 or .0273 of this Section.

(d) Where based on preceding annual reports, agriculture has achieved the reductions called for in this Item, and two sequential annual reports show that a county or Falls watershed did not meet its nitrogen or pasture loss reduction target, the Watershed Oversight Committee shall work with the Division of Soil and Water Conservation and the applicable Local Advisory Committees to seek reduction actions by operations to bring the area back into compliance, and shall report on their efforts in subsequent annual reports. Should two additional, sequential annual reports show continued non-compliance, the Commission may seek a more specific implementation plan from the Watershed Oversight Committee, which may include an assessment of need for specific action by the Commission, and the Commission may impose implementation requirements on operations to meet the targets.

(e) Should a committee ~~called for under Item (5)~~ established pursuant to Item (7) or (8) of this Rule not ~~form nor~~ follow through on its responsibilities such that ~~a local strategy~~ local progress is not ~~implemented~~ reported in keeping with Item ~~(8)~~ (7)(b)(2) of this Rule, the Commission shall require all persons subject to this Rule in the affected area to implement BMPs as needed to meet the objectives of this Rule.

(6) RULE REQUIREMENTS FOR INDIVIDUAL OPERATIONS. Persons subject to this Rule shall adhere to the following requirements:

~~(a) Persons subject to this Rule shall register their operations with their Local Advisory Committee according to the requirements of Item (8) of this Rule;~~

~~(b)~~ (a) Persons are not required to implement any specific BMPs in Stage I, with the exception of ~~Sub-Item (d)~~ requirements that may stem from Sub-Item (c) of this Item, but may elect to contribute to ~~the~~ collective local ~~nutrient strategy~~ progress by implementing any BMPs they choose that are recognized ~~by the Watershed Oversight Committee as nitrogen reducing or phosphorus-reducing BMPs;~~ under the accounting methods approved by the Water Quality Committee of the Commission in March 2012 or subsequently pursuant to Sub-Item (7)(b) and Item (9) of this Rule.

~~(c)~~ (b) The Division shall require that residuals application, animal waste application, and surface irrigation pursuant to permits issued under 15A NCAC 02T .1100, 15A NCAC 02T .1300, and 15A NCAC 02T .0500 respectively, to lands within the Falls watershed be done in a manner that minimizes the potential for nitrogen and phosphorus loading to surface waters by implementing the following measures:

(i) Animal waste application operators subject to ~~t~~the permitting requirements in this Sub-item shall meet Realistic Yield Expectation based nitrogen application rates and shall apply phosphorus in compliance with guidance established in the most recent version of North Carolina Agricultural Research Service's Technical Bulletin 323, "North Carolina Phosphorus Loss Assessment: I Model Description and II. Scientific Basis and Supporting Literature" developed by the Department of Soil Science and Biological and Agricultural Engineering at North Carolina State University. The Division shall modify all existing permits for affected lands to include these requirements upon their next renewal after effective date, and shall include these requirements in all new permits issued after effective date. Permittees shall be required to comply with this condition upon permit issuance or renewal as applicable; and

(ii) Residual application and surface irrigation operators subject to the permitting requirements in this Sub-item shall meet Realistic Yield Expectation based nitrogen application rates and shall conduct and provide to the Division annual assessments of their soil test phosphorus index results and phosphorus loading rates. At such time as data quantifying the fate and transport of chemically bound phosphorus are made available, the Division may make recommendations to the Commission to consider whether revisions to the requirements of this Rule are needed and may initiate rulemaking or any other action allowed by law.

~~(d)~~ (c) Should a ~~local strategy~~ county not achieve its Stage I objectives by calendar year 2020; operations within that local area shall face specific implementation requirements, as described under Sub-Item ~~(5)(d)~~ (5)(c) of this Rule.

(7) WATERSHED OVERSIGHT COMMITTEE. The Watershed Oversight Committee shall have the following membership, role and responsibilities:

(a) MEMBERSHIP. The Director shall be responsible for ~~forming~~ maintaining a Watershed Oversight ~~Committee by March 15, 2011.~~ Committee. Until such time as the Commission determines that long-term ~~maintenance of the nutrient loads~~ compliance with this rule is assured, the Director shall either reappoint members or replace members at least every six ~~years.~~ years from the Director's initial appointment of members in July 2011. The Director shall solicit nominations for membership on this Committee to represent each of the following interests, and shall appoint one nominee to represent each interest except where a greater number is noted. The Director ~~of the Division of Water Quality~~ may appoint a replacement at any time for an interest in Sub-Items ~~(7)(a)(vi)~~ (7)(a)(vii) through (7)(a)(x) of this Rule upon request of representatives of that interest or by the request of the Commissioner of Agriculture:

(i) Division of Soil and Water ~~Conservation;~~ Conservation of the North Carolina Department of Agriculture and Consumer Services;

(ii) United States Department of Agriculture-Natural Resources Conservation Service (shall serve in an "ex-officio" non-voting capacity and shall function as a technical program advisor to the Committee);

(iii) Other division within the North Carolina Department of Agriculture and Consumer Services;

(iv) North Carolina Cooperative Extension Service;

(v) Division of Water ~~Quality;~~ Resources;

(vi) Three environmental ~~interests, at least two of which are residents of the Falls watershed;~~ interests;

(vii) General farming interests;

(viii) Pasture-based livestock interests;

(ix) Equine livestock interests;

(x) Cropland farming interests; and

(xi) The scientific community with experience related to water quality problems in the Falls watershed.

(b) ROLE. The Watershed Oversight Committee shall:

~~(i) Develop tracking and accounting methods for nitrogen and phosphorus loading and submit methods to the Water Quality Committee of the Commission for approval based on the standards set out in Sub-Item (7)(c) of this Rule by March 15, 2012;~~

~~(ii)~~ (i) Identify and implement ~~future~~ refinements to the accounting methods approved by the Water Quality Committee of the Commission in March 2012 based on the standards set out in Sub-Item (c) of this Item, as needed to reflect advances in scientific

understanding, including establishment or refinement of nutrient reduction efficiencies for BMPs;

~~(iii) By January 15, 2013, collect data needed to conduct initial nutrient loading accounting for the baseline period and the most current year feasible, perform this accounting, and determine the extent to which agricultural operations have achieved the Stage I nitrogen loading objective and phosphorus loading trend indicators for the watershed and present findings to the Water Quality Committee of the Commission;~~

~~(iv)~~ (ii) Review, approve, and summarize ~~local nutrient~~ county level strategies if required pursuant to Sub-Item ~~(5)(d)~~ (5)(c) of this Rule. ~~Rule and according to the timeframe identified in Sub-Item (8)(c)(ii) of this Rule.~~ Provide these strategies to the ~~Division;~~ Commission for approval by July 2022;

~~(v)~~ (iii) ~~Establish requirements for, review,~~ Continue to review, approve and summarize local nitrogen and phosphorus loading annual reports to ensure ongoing implementation of the annual reporting standards approved by the Water Quality Committee of the Commission in March 2012 in keeping with ~~as described under~~ Sub-Item ~~(8)(e)~~ (8)(d) of this ~~Rule,~~ Rule. and ~~present~~ Continue to present the report to the Division annually, as initiated in 2013 pursuant to the original rule's requirements, until such time as the Commission delegates responsibility to the Director, revises the reporting frequency or requirements, or determines that annual reports are no longer needed to fulfill the purposes of ~~Rule.~~ this Rule; ~~Present a report in January 2014 to the Commission. Should that report find that agriculture in the watershed has not met its collective nitrogen or phosphorus objective, include an assessment in that report of the practicability of producers achieving the Stage I objective by calendar year 2020, and recommendations to the Commission as deemed appropriate;~~

~~(vi) Obtain nutrient reduction efficiencies for BMPs from the scientific community associated with design criteria identified in rules adopted by the Soil and Water Conservation Commission, including 15A NCAC 06E .0104 and 15A NCAC 06F .0104; and~~

~~(vii)~~ (iv) ~~Investigate and, if~~ Where feasible, develop ~~an accounting method~~ design standards and associated accounting methods for nutrient-reducing practices for cropland or pastureland to equate implementation of ~~specific nutrient-reducing~~ those practices ~~on cropland or pastureland~~ to reductions in nutrient loading delivered to streams; and

~~(viii)~~ (v) Quantify the nitrogen and phosphorus ~~credits~~ load reductions generated by such practices for the purpose of selling or buying credits; establish criteria and a process as needed for the exchange of nutrient credits between parties subject to this rule with each other or with parties subject to other nutrient strategy rules in the Falls lake

watershed pursuant to the requirements of ~~15A NCAC 02B.0282;~~ Rule .0273 of this Section; obtain approval from the Division for this trading program pursuant to the requirements of Rule ~~.0282; approve eligible trades;~~ .0273 of this Section; evaluate proposed trades relative to the approved program standards and submit recommendations to the Division for concurrence; and where the Division concurs, ensure that such credits traded for purposes of meeting this Rule are accounted for and tracked separately from those contributing to the objectives of other rules of the Falls nutrient strategy.

(c) ACCOUNTING METHODS. Success in meeting this Rule's purpose will be gauged by estimating percentage changes in nitrogen loading from agricultural lands in the Falls watershed and by evaluating broader trends in indicators of phosphorus loading from agricultural lands in the Falls watershed. The Watershed Oversight Committee shall ~~develop~~ maintain, and update as indicated elsewhere in this Item, accounting methods that meet the following requirements:

(i) The nitrogen method shall estimate baseline and annual total nitrogen ~~loading~~ losses from agricultural operations in each county and for the entire Falls watershed;

(ii) The nitrogen and phosphorus methods shall include a means of tracking implementation of BMPs, including number, type, and area affected;

(iii) The nitrogen method shall include a means of estimating incremental nitrogen ~~loading~~ loss reductions from ~~actual BMP~~ implementation of BMPs that conform to requirements of Item (9) of this Rule and of evaluating progress toward and maintenance of the nutrient objectives from changes in BMP implementation, fertilization, and changes in individual crop ~~acres, and agricultural land use~~ acres;

(iv) The nitrogen and phosphorus methods shall be refined as research and technical advances allow;

(v) The phosphorus method shall quantify baseline values for and annual changes in factors affecting agricultural phosphorus ~~loading~~ loss as identified by the phosphorus technical advisory committee established under ~~15A NCAC 02B .0256(f)(2)(C).~~ Rule .0256(f)(2)(C) of this Section. The method shall provide for periodic qualitative assessment of likely trends in agricultural phosphorus loading from the Falls watershed relative to baseline conditions;

(vi) Phosphorus accounting may also include a scientifically valid, survey-based sampling of farms in the Falls watershed for the purpose of conducting field-scale phosphorus loading assessments and extrapolating phosphorus loading for the Falls watershed for the baseline period and at periodic intervals; and

(vii) Aspects of pasture-based livestock operations that potentially affect nutrient loading and are not captured by the accounting methods described above shall be accounted

for ~~in annual reporting~~ to the extent that advances in scientific understanding reasonably allow. Such accounting shall, at a minimum, quantify changes in the extent of livestock-related nutrient controlling ~~BMPs.~~ BMPs that conform to requirements of Item (9) of this Rule at intervals supported by pasture data availability, and not to exceed every 5 years. Progress may be judged based on percent change in the extent of implementation relative to percentage objectives identified in Item (5) of this Rule.

(8) LOCAL ADVISORY COMMITTEES. Local Advisory Committees ~~shall be formed for each county within the watershed by January 15, 2012, and shall have the following membership, roles, and responsibilities:~~ formed in 1999 for counties in the Falls watershed pursuant to the requirements of Rule .0238 of this Section and subsequently implementing the requirements of this Item since 2011 shall continue to implement them as follows:

(a) MEMBERSHIP. ~~A Local~~ Parties identified in this Item shall maintain the composition of a Local Advisory Committee ~~shall be appointed as provided for in this Item.~~ as identified in this Sub-Item. It shall terminate upon a finding by the Commission that it is no longer needed to fulfill the purposes of this Rule. ~~Each Local Advisory Committee shall consist of:~~

(i) One representative of the county Soil and Water Conservation District;

(ii) One representative of the county office of the United States Department of Agriculture Natural Resources Conservation Service;

(iii) One representative of the North Carolina Department of Agriculture and Consumer Services;

(iv) One representative of the county office of the North Carolina Cooperative Extension Service;

(v) One representative of the North Carolina Division of Soil and Water Conservation whose regional assignment includes the county; and

(vi) At least two farmers who reside in the ~~county;~~ county. ~~and~~

~~(vii) One representative of equine livestock interests.~~

(b) APPOINTMENT OF MEMBERS. The Director of the Division of Water ~~Quality~~ Resources and the Director of the Division of Soil and Water Conservation of the Department of ~~Environment and Natural Resources~~ Agriculture and Consumer Services shall ~~appoint~~ maintain appointments of members described in Sub-Items (8)(a)(i), (8)(a)(ii), (8)(a)(iv), and (8)(a)(v) of this Rule. The Director of the Division of Water ~~Quality,~~ Resources, with recommendations from ~~the Director of the Division of Soil and Water Conservation and~~ the Commissioner of Agriculture, shall ~~appoint~~ maintain appointments of the members described in Sub-Items (8)(a)(iii) and (8)(a)(vi) of this Rule from persons nominated by nongovernmental organizations whose members produce or manage agricultural commodities in each county. Members of the Local Advisory Committees shall serve at the pleasure of their appointing authorities.

(c) ROLE. The Local Advisory Committees ~~shall:~~ shall continue to submit

~~(i) Conduct a registration process for persons subject to this Rule. This registration process shall be completed by January 15, 2012. The registration process shall request at a minimum the type and acreage of agricultural operations. It shall provide persons with information on requirements and options under this Rule, and on available technical assistance and cost share options;~~

~~(ii) Develop local nutrient control strategies for agricultural operations, pursuant to Sub-Item (8)(d) of this Rule, to meet the nitrogen and phosphorus objectives of this Rule. Strategies shall be submitted to the Watershed Oversight Committee by July 2012;~~

~~(iii) Ensure that any changes to the design of the local strategy will continue to meet the nutrient objectives of this Rule; and~~

~~(iv) Submit~~ reports to the Watershed Oversight Committee, pursuant to Sub-Item ~~(8)(c)~~ (8)(d) of this Rule, annually ~~beginning in calendar year 2012~~ capturing the preceding calendar year of production, until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of this Rule.

~~(d) LOCAL NUTRIENT CONTROL STRATEGIES. Local Advisory Committees shall develop nutrient control strategies. If a Local Advisory Committee fails to submit a nutrient control strategy required in Sub-Item (8)(c)(ii) of this Rule, the Commission may develop one based on the accounting methods that it approves pursuant to Sub-Item (7)(b)(i) of this Rule. Local strategies shall meet the following requirements:~~

~~(i) Local nutrient control strategies shall be designed to achieve the required nitrogen loading reduction objectives and qualitative trends in indicators of agricultural phosphorus loading by calendar year 2020, and to maintain those reductions in perpetuity or until such time as this rule is revised to modify this requirement; and~~

~~(ii) Local nutrient control strategies shall specify the numbers, acres, and types of all agricultural operations within their areas, numbers of BMPs that will be implemented by enrolled operations and acres to be affected by those BMPs, estimated nitrogen and phosphorus loading reductions, schedule for BMP implementation, and operation and maintenance requirements.~~

~~(e)~~ (d) ANNUAL REPORTS. ~~The Local Advisory Committees shall be responsible for submitting annual reports for their counties to the Watershed Oversight Committee until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of this Rule. The Watershed Oversight Committee shall determine reporting requirements to meet these objectives. Those requirements may include information on BMPs implemented by individual farms, proper BMP operation and maintenance, BMPs discontinued, changes in agricultural land use or activity, and resultant net nitrogen loading and phosphorus trend~~

~~indicator changes.~~ The annual reports in 2016 and ~~2026~~ 2026, in addition to complying with the accounting and reporting requirements approved by the Water Quality Committee of the Commission in March 2012, shall address agriculture's success in complying with the load reduction requirements described in Items (5)(a) and (5)(b) of this Rule and shall include adjustments to address deficiencies to achieve compliance.

(f) PROGRESS. In 2016 the Division of Water ~~Quality,~~ Resources, in consultation with the Watershed Oversight Committee, shall submit a report to the Commission gauging the extent to which reasonable progress has been achieved towards the Stage I objectives described in this Rule.

(9) PRACTICE STANDARDS. To receive nutrient reduction credit under the accounting methods described elsewhere in this Rule, a BMP shall be included in the Commission-approved accounting method, or in a subsequent revision to that method identified in annual reporting, and it shall be implemented in conformance with standards established by the NC Soil and Water Conservation Commission or the USDA-Natural Resources Conservation Service in North Carolina.

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486;*
Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).
Amended Eff. August 1, 2017.

15A NCAC 02B .0281 is proposed for amendment as follows:

15A NCAC 02B .0281 FALLS WATER SUPPLY NUTRIENT STRATEGY: STORMWATER REQUIREMENTS FOR STATE AND FEDERAL ENTITIES

The following is the stormwater strategy, as prefaced in Rule 02B .0275, for the activities of state and federal entities within the Falls watershed.

(1) PURPOSE. The purposes of this Rule are as follows.

(a) To accomplish the following on lands under state and federal control

~~(a)~~(i) ~~To achieve~~Achieve and maintain, on new non-road development lands, the nonpoint source nitrogen and phosphorus percentage reduction objectives established for Falls Reservoir in 15A NCAC 02B .0275 relative to the baseline period defined in ~~Rule,that~~Rule;

(ii) ~~to provide~~ Provide the highest practicable level of treatment on new road ~~development,~~ development; and

(iii) ~~to achieve and maintain the percentage objectives on existing developed lands by reducing loading from~~ On existing state-maintained roadways and facilities, and ~~from~~ existing developed lands controlled by other state and federal entities in the Falls ~~watershed;~~achieve and maintain the nonpoint source nitrogen and phosphorus percentage reduction goals established for Falls Reservoir in 15A NCAC 02B .0275 relative to the baseline period defined in that Rule.

(b) To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows from state-maintained roadways and facilities and from lands controlled by other state and federal entities in the Falls watershed; and

(c) To protect the water supply, aquatic life, and recreational uses of Falls Reservoir.

(2) APPLICABILITY. This Rule shall apply to all existing and new development, both as defined in 15A NCAC 02B ~~.0276,~~ .0278, that lies within or partially within the Falls watershed under the control of the NC Department of Transportation (NCDOT), including roadways and facilities, and to all lands controlled by other state and federal entities in the Falls watershed.

(3) NON-NCDOT REQUIREMENTS. With the exception of the ~~NCDOT,~~NCDOT and state and federal projects that are already meeting local government stormwater ordinance requirements under the authority of S.L. 2006-246, all state and federal entities that control lands within the Falls watershed shall meet the following requirements:

(a) For any new development proposed within their jurisdictions that would disturb one quarter acre or more, non-NCDOT state and federal entities shall continue to develop stormwater management plans for submission to and approval by the ~~Division;~~ Division. These stormwater plans shall not be approved by the Division unless the following criteria are met:

~~(b) The non-NCDOT state or federal entity shall include measures to ensure maintenance of best management practices (BMPs) implemented as a result of the provisions in Sub-Item (a) of this Item for the life of the development; and~~

~~(c) A plan to ensure enforcement and compliance with the provisions in Sub-Item (4) of this Rule for the life of the new development.~~

(i) Nitrogen and phosphorus loads contributed by the proposed new development activity shall not exceed the following unit-area mass loading rates for nitrogen and phosphorus, respectively, expressed in units of pounds/acre/year: 2.2 and 0.33. The developer shall determine the need for engineered stormwater controls to meet these loading rate targets by using theloading calculation method called for in Item (12) of this Rule or other equivalent method acceptable to the Division;

(ii) A plan to ensure maintenance of best management practices (BMPs) implemented to comply with this rule for the life of the development;

(iii) Proposed new development shall demonstrate compliance with the riparian buffer protection requirements of 15A NCAC 02B .0233 and .0295 and subsequent amendments or replacements to those requirements;

(iv) Proposed new development subject to NPDES, water supply, and other state-mandated stormwater regulations shall comply with those regulations and with applicable permit limits in addition to the other requirements of this sub-item. Proposed new development in any water supply watershed in the Falls watershed designated WS-II, WS-III, or WS-IV shall comply with the density-based restrictions, obligations, and requirements for engineered stormwater controls, clustering options, operation and maintenance responsibilities, vegetated setbacks, land application, and landfill provisions described in Sub-Items (3)(b)(i) and (3)(b)(ii) of the applicable rule among 15A NCAC 02B .0214 through .0216. Provided, the allowance in water supply watershed rules for 10 percent of a jurisdiction to be developed at up to 70 percent built-upon area without stormwater treatment shall not be available in the Falls watershed;

(v) Stormwater systems shall be designed to control and treat at a minimum the runoff generated by one inch of rainfall from all surfaces draining to the BMP. The treatment volume shall be drawn down pursuant to standards specific to each practice as provided in the most recent version of the *Stormwater Best Management Practices Manual* published by DEMLR, or other at least technically equivalent standards acceptable to the Division. To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by

erosive flows, at a minimum, net increase in peak flow leaving the site from the predevelopment condition for the 1-year, 24-hour storm shall not exceed 10 percent;

(vi) Proposed development that would replace or expand structures or improvements that existed as of December 2006, the end of the baseline period, and that would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high-density requirements except to the extent that the developer shall provide stormwater control at least equal to the previous development; and

(vii) Proposed development that would replace or expand existing structures and would result in a net increase in built-upon area shall treat the net increase and shall have the option to achieve either the percentage loading reduction objectives stated in 15A NCAC 02B .0275 or to meet the loading rate targets described in this Item. These requirements shall supersede those identified in 15A NCAC 02B .0104(q). The developer shall determine the load reductions needed to meet these loading rate targets by using the loading calculation method called for in Item (12) or other equivalent method acceptable to the Division;

(b) The Non-NCDOT entity shall have the option of offsetting part of their nitrogen and phosphorus loads by implementing or funding perpetual offsite offset measures. Before using an offsite offset option, a development shall implement onsite structural stormwater controls that achieve one of the following levels of reductions:

(i) Proposed new development products disturbing at least one quarter acre but less than one acre of land, except as stated in this Sub-Item (3)(a)(vi), shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in this Sub-Item (3)(a)(v);

(ii) Except as stated in this Item, proposed new development activity that disturbs one acre of land or more shall achieve 50 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in this Item; or

(c) Offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with the loading rate targets set out in this Sub-Item (3)(a)(i). Offsetting reductions shall be perpetual in nature. The developer shall comply with the requirements of Rules .0240 and .0273 of this Section; and

(d) New development may satisfy the requirements of this Rule by demonstrating pre and post development runoff volume matching through the use of an accounting tool approved by the Division that estimates the effect of Low Impact Development techniques utilizing the most

recent research data available for runoff and effluent of LID techniques and hydrologic performance of best management practices.

(e) Nothing in this Rule preempts non-NCDOT entities from implementing requirements that are more restrictive than those set forth in this Rule.

~~(4) PLAN APPROVAL REQUIREMENTS. A developer's stormwater plan shall not be approved unless the following criteria are met:~~

~~(a) Nitrogen and phosphorus loads contributed by the proposed new development activity shall not exceed the following unit area mass loading rates for nitrogen and phosphorus, respectively, expressed in units of pounds/acre/year: 2.2 and 0.33. Proposed development that would replace or expand structures or improvements that existed as of December 2006, the end of the baseline period, and that would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high density requirements except to the extent that the developer shall provide stormwater control at least equal to the previous development. Proposed development that would replace or expand existing structures or improvements and would result in a net increase in built-upon area shall have the option either to achieve at least the percentage loading reduction objectives stated in 15A NCAC 02B .0275 as applied to nitrogen and phosphorus loading from the previous development for the entire project site, or to meet the loading rate targets described in this item. These requirements shall supersede those identified in 15A NCAC 02B .0104(q). The developer shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in Sub-Item (4)(a) of 15A NCAC 02B .0277 or other equivalent method acceptable to the Division;~~

~~(b) The developer shall have the option of offsetting part of their nitrogen and phosphorus loads by implementing or funding~~ perpetual ~~offsite offset measures as follows. Before using an offsite offset option, a development shall implement onsite structural stormwater controls that achieve one of the following level of reduction:~~

~~(i) Proposed new development activity disturbing at least one quarter acre but less than one acre of land, except as stated in this Item, shall achieve 30 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in this item;~~

~~(ii) Except as stated in this Item, proposed new development activity that disturbs one acre of land or more shall achieve 50 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in this Item; or~~

~~(iii) Proposed development that would replace or expand structures or improvements that existed as of December 2006, the end of the baseline period, and that increases~~

~~impervious surface within a designated downtown area, regardless of area disturbed, shall achieve 30 percent of the needed load reduction in both nitrogen and phosphorus onsite, and shall meet any requirements for engineered stormwater controls described in this Item;~~

~~(c) Offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with the loading rate targets set out in this Item. A developer may use any measure that complies with the requirements of Rules .0240 and .0282 of this Section;~~

~~(d) Proposed new development subject to NPDES, water supply, and other state-mandated stormwater regulations shall comply with those regulations and with applicable permit limits in addition to the other requirements of this sub-item. Proposed new development in any water supply watershed in the Falls watershed designated WS-II, WS-III, or WS-IV shall comply with the density-based restrictions, obligations, and requirements for engineered stormwater controls, clustering options, operation and maintenance responsibilities, vegetated setbacks, land application, and landfill provisions described in Sub-Items (3)(b)(i) and (3)(b)(ii) of the applicable rule among 15A NCAC 02B .0214 through .0216. Provided, the allowance in water supply watershed rules for 10 percent of a jurisdiction to be developed at up to 70 percent built-upon area without stormwater treatment shall not be available in the Falls watershed;~~

~~(e) Stormwater systems shall be designed to control and treat at a minimum the runoff generated from all surfaces in the project area by one inch of rainfall. The treatment volume shall be drawn down pursuant to standards specific to each practice as provided in the July 2007 version of the *Stormwater Best Management Practices Manual* published by the Division, or other at least technically equivalent standards acceptable to the Division;~~

~~(f) To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows, at a minimum, the new development shall not result in a net increase in peak flow leaving the site from pre-development conditions for the one-year, 24-hour storm event;~~

~~(g) New development may satisfy the requirements of this Rule by meeting the post-development hydrologic criteria set out in Chapter 2 of the *North Carolina Low Impact Development Guidebook* dated June 2009, or the hydrologic criteria in the most recent version of that guidebook; and~~

~~(h) Proposed new development shall demonstrate compliance with the riparian buffer protection requirements of 15A NCAC 02B .0233 and .0242.~~

~~(5)~~(4) NON-NCDOT STAGED AND ADAPTIVE IMPLEMENTATION REQUIREMENTS. For existing development, non-NCDOT state and federal entities shall develop and implement staged load reduction programs for achieving and maintaining nutrient load reductions from existing development based on the

standards set out in this Item. Such entities shall submit these load-reducing programs for approval by the Commission that include the following staged elements and meet the minimum standards for each stage of implementation:

(a) In Stage I, entities subject to this rule shall implement a load reduction program that provides estimates of, and plans for offsetting by calendar year 2020, nutrient loading increases from lands developed subsequent to the baseline (2006) and not subject to the requirements of the Falls Lake new development stormwater program. For these existing developed lands, the current loading rate shall be compared to the loading rate for these lands prior to development for the acres involved, and the difference shall constitute the load reduction need in annual mass load, in pounds per year. Alternatively, a state or federal entity may assume uniform pre-development loading rates of 2.89 pounds per acre per year N and 0.63 pounds per acre per year P for these lands. The entity shall achieve this stage one load reduction by calendar year 2020. This Stage I program shall meet the criteria defined in Item (4) of 15A NCAC 02B.0278; and

(b) By ~~January 15,~~ January 2021, and every five years thereafter, a state or federal entity located in the Upper Falls Watershed as defined in Item (11) of 15A NCAC 02B .0276 shall submit and begin implementing a Stage II load reduction program or revision designed to achieve the percent load reduction objectives from existing developed lands under its control, that includes timeframes for achieving these objectives and that meets the criteria defined in Items ~~(5)~~(4) and (6) of this Rule.

~~(6)~~(5) ELEMENTS OF NON-NCDOT EXISTING DEVELOPMENT LOAD REDUCTION PROGRAMS. A non-NCDOT state or federal entity existing development load reduction program shall address the following elements:

(a) State and federal entities in the Eno River and Little River subwatersheds shall, as part of their Stage I load reduction programs, begin and continuously implement a program to reduce loading from discharging sand filters and malfunctioning septic systems owned or used by state or federal agencies discharging into waters of the State within those subwatersheds;

(b) State and federal entities in any Falls subwatershed in which chlorophyll a levels have exceeded 40 ug/L in more than seventy-five percent of the monitoring events in any calendar year shall, as part of their Stage I load reduction programs, begin and continuously implement a program to reduce nutrient loading into the waters of the State within that subwatersheds;

~~(c) The total amount of nutrient loading reductions in Stage I is not increased for state and federal entities by the requirements to add specific program components to address loading from malfunctioning septic systems and discharging sand filters or high nutrient loading levels pursuant to Sub-Items (a) and (b) of this Item;~~

~~(d) In preparation for implementation of their Stage I and Stage II load reduction programs, state and federal entities shall develop inventories and characterize load reduction potential to the extent that accounting methods allow for the following:~~

~~(i) Wastewater collection systems;~~

~~(ii) Discharging sand filter systems, including availability of or potential for central sewer connection;~~

~~(iii) Properly functioning and malfunctioning septic systems;~~

~~(iv) Restoration opportunities in utility corridors;~~

~~(v) Fertilizer management plans for state and federally owned lands;~~

~~(vi) Structural stormwater practices, including intended purpose, condition, potential for greater nutrient control; and~~

~~(vii) Wetlands and riparian buffers including potential for restoration opportunities.~~

~~(e)~~(c) A state or federal entities load reduction need shall be based on the developed lands owned or used by the state or federal entity within the Falls watershed;

~~(f)~~(d) Nitrogen and phosphorous loading from existing developed lands, including loading from onsite wastewater treatment systems to the extent accounting methods allow, shall be calculated by applying the accounting ~~too~~ tool described in Item ~~(13)~~(12) and shall quantify baseline loads of nitrogen and phosphorus to surface waters from the lands under the entity's control as well as loading changes post-baseline. It shall also calculate target nitrogen and phosphorus loads and corresponding reduction needs;

~~(g)~~(e) Nitrogen and phosphorus loading from existing developed lands, including loading from onsite wastewater treatment systems to the extent accounting methods allow, shall be calculated by applying the accounting too described in Item ~~(13)~~(12) of this Rule and shall quantify baseline loads of nitrogen and phosphorus to surface waters from state and federal entities as well as loading changes post-baseline. It shall calculate target nitrogen and phosphorus loads and corresponding load reduction needs;

~~(h)~~(f) The Commission shall recognize reduction credit for implementation of policies and practices implemented after January 1, 2007 and before January 15, 2011, to reduce runoff and discharge of nitrogen and phosphorus per Session Law 2009-486. The load reduction program shall identify specific load-reducing practices implemented subsequent to the baseline period and for which the entity is seeking credit. It shall estimate load reductions for these practices and their anticipated duration using methods provided for in Sub-Item (9)(b); ~~Item (13);~~

~~(i)~~(g) The program shall include a proposed implementation schedule that includes annual implementation expectations. The load reduction program shall identify the types of activities the state or federal entity intends to implement and types of existing development affected, relative proportions or prioritization of practices, relative magnitude of reductions it expects to

achieve from each, and the relative costs and efficiencies of each activity to the extent information is available. The program shall identify the duration of anticipated loading reductions, and may seek activities that provide long-term reductions;

~~(j)~~(h) The load reduction program shall identify anticipated funding mechanisms or sources and discuss steps taken or planned to secure such funding;

~~(k)~~(i) The program shall address the extent of load reduction opportunities intended from the following types of lands:

(i) Lands owned or otherwise controlled by the state or federal entity; and

(ii) Lands other than those on which the entity's load reduction need is based as described in this Item, including lands both within and outside its jurisdiction and third party sellers.

(j) The program shall address the extent of load reduction opportunities from the following types of practices either included in the model program or subsequently approved by the Director according to Sub-Item (8)(b) of Rule .0278 of this Section:

(i) Stormwater and ecosystem practices;

(ii) Onsite and municipal wastewater practices; and

(iii) Other practices, measures, and activities for which accounting methods acceptable to the Division can be provided.

~~(l) The program shall address the extent of load reduction proposed from, at a minimum, the following stormwater and ecosystem restoration activities:~~

~~(i) Bioretention;~~

~~(ii) Constructed wetland;~~

~~(iii) Sand filter;~~

~~(iv) Filter Strip;~~

~~(v) Grassed swale;~~

~~(vi) Infiltration device;~~

~~(vii) Extended dry detention;~~

~~(viii) Rainwater harvesting system;~~

~~(ix) Treatment of Redevelopment;~~

~~(x) Overtreatment of new development;~~

~~(xi) Removal of impervious surface;~~

~~(xii) Retrofitting treatment into existing stormwater ponds;~~

~~(xiii) Off-line regional treatment systems;~~

~~(xiv) Wetland or riparian buffer restoration; and~~

~~(xv) Reforestation with conservation easement or other protective covenant.~~

~~(m) The program shall evaluate the load reduction potential from the following wastewater activities:~~

~~(i) Creation of surplus relative to an allocation established in 15A NCAC 02B .0279;~~

~~(ii) Expansion of surplus allocation through regionalization;~~

~~(iii) Connection of discharging sand filters and malfunctioning septic systems to central sewer or replacement with permitted non-discharge alternatives;~~

~~(iv) Removal of illegal discharges; and~~

~~(v) Improvement of wastewater collection systems.~~

~~(n) A state or federal entity may propose in its load reduction program the use of the following measures in addition to items listed in (l) and (m), or may propose other measures for which it can provide equivalent accounting methods acceptable to the Division:~~

~~(i) Redirecting runoff away from impervious surfaces;~~

~~(ii) Soil amendments;~~

~~(iii) Stream restoration;~~

~~(iv) Improved street sweeping; and~~

~~(v) Source control, such as waste and fertilizer controls.~~

~~(o)~~(m) The program shall include evaluation of load reduction potential relative to the following factors:

(i) Extent of physical opportunities for installation;

(ii) Landowner acceptance;

(iii) Incentive and education options for improving landowner acceptance;

(iv) Existing and potential funding sources and magnitudes;

(v) Practice cost-effectiveness (e.g., cost per pound of nutrient removed);

(vi) Increase in per capita cost of a non-NCDOT state or federal entity's stormwater management program to implement the program;

(vii) Implementation rate without the use of eminent domain; and

(viii) Need for and projected role of eminent domain.

~~(7)~~(6) The Commission shall approve a non-NCDOT Stage I load reduction program if it meets the requirements of Items ~~(5) and (6)~~ (4) and (5) of this Rule. The Commission shall approve a Stage II load reduction program if it meets the requirements of Items ~~(5) and (6)~~ (4) and (5) of this Rule unless the Commission finds that the local non-NCDOT state or federal entity can, through the implementation of reasonable and cost-effective measures not included in the proposed program, meet the Stage II nutrient load reductions required by this Rule by a date earlier than that proposed by the non-NCDOT state or federal entity. If the Commission finds that there are additional or alternative reasonable and cost-effective measures, the Commission may require the non-NCDOT state or federal entity to modify its proposed program to include such measures to achieve the required reductions by the earlier date. If the

Commission requires such modifications, the non-NCDOT state or federal entity shall submit a modified program within two months. The Division shall recommend that the Commission approve or disapprove the modified program within three months after receiving the modified program. In determining whether additional or alternative load reduction measures are reasonable and cost effective, the Commission shall consider factors including, but not limited to those identified in Sub-Item ~~(6)(o)~~ (5)(j)of this Rule. The Commission shall not require additional or alternative measures that would require a non-NCDOT state or federal entity to:

(a) Install a new stormwater collection system in an area of existing development unless the area is being redeveloped; or

(b) Reduce impervious surfaces within an area of existing development unless the area is being redeveloped.

~~(8) A non-NCDOT state or federal entity shall have the option of working with the county or counties in which it falls, or with a municipality or municipalities within the same subwatershed, to jointly meet the loading targets from all lands within their combined jurisdictions within a subwatershed. The entity may utilize private or third party sellers. All reductions involving trading with other parties shall meet the requirements of 15A NCAC 02B .0282.~~

(7) A non-NCDOT entity may obtain reductions through other means within its subwatersehd in addition to its implementation of practices on lands within its jurisdiction. Other means include:

(a) A non-NCDOT entity may work with the county or counties in which it falls, or with another municipality or municipalities within the same subwatershed, to jointly meet the loading targets from all lands within their combined jurisdiction within a subwatershed;

(b) Purchase of nutrient offset credits pursuant to G.S. 143-214.26 and Rules .0240 of this Section; and

(c) Other forms of trading pursuant to Rule .0273 of this Section.

~~(9)~~(8) NCDOT REQUIREMENTS. The NCDOT shall meet the following requirements on lands within the Falls watershed by continuing to implement the single Stormwater Management Program approved by the Commission in January 2014 meeting the following criteria:: ~~develop a single Stormwater Management Program that will be applicable to the entire Falls watershed and submit this program for approval by the Division according to the standards set forth below. In addition, the program shall, at a minimum, comply with NCDOT's then-current stormwater permit. This program shall:~~

~~(a) Identify NCDOT stormwater outfalls from Interstate, US, and NC primary routes;~~

~~(b) Identify and eliminate illegal discharges into the NCDOT's stormwater conveyance system;~~

~~(c)~~(a) Implementation of a program for post-construction stormwater runoff control for new development including new and widening NCDOT roads and facilities. The program established a process by which the Division reviews and approves stormwater designs for new NCDOT development projects. The program delineates the scope of vested projects that would be

considered as existing development, and defines lower thresholds of significance for activities considered new development. In addition, the following criteria apply: ~~Establish a program for post-construction stormwater runoff control for new development, including new and widening NCDOT roads and facilities. The program shall establish a process by which the Division shall review and approve stormwater designs for new NCDOT development projects. The program shall delineate the scope of vested projects that would be considered as existing development, and shall define lower thresholds of significance for activities considered new development. In addition, the following criteria shall apply:~~

(i) For new and widening roads, weigh stations, and replacement of existing bridges, compliance with the riparian buffer protection requirements of Rules 15A NCAC 02B .0233 and .0242 shall be deemed as compliance with the purposes of this Rule;

(ii) New non-road development shall achieve and maintain the nitrogen and phosphorus percentage load reduction objectives established in 15A NCAC 02B .0275 relative to either area-weighted average loading rates of all developable lands as of the baseline period defined in 15A NCAC 02B .0275, or to project-specific pre-development loading rates. Values for area-weighted average loading rate targets for nitrogen and phosphorus, respectively, are expressed in units of pounds per acre per year: 2.2 and 0.33. The NCDOT shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in Item ~~(13)~~(12) of this Rule or other equivalent method acceptable to the Division. Where stormwater treatment systems are needed to meet these targets, they shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. Such systems shall be assumed to achieve the nutrient removal efficiencies identified in the ~~July 2007~~ most recent version of the *Stormwater Best Management Practices Manual* published by the Division provided that they meet associated drawdown and other design specifications included in the same document. The NCDOT may propose to the Division nutrient removal rates for practices currently included in the BMP Toolbox required under its NPDES stormwater permit, or may propose revisions to those practices or additional practices with associated nutrient removal rates. The NCDOT may use any such practices approved by the Division to meet loading rate targets identified in this Sub-item. New non-road development shall also control runoff flows to meet the purpose of this Rule regarding protection of the nutrient functions and integrity of receiving waters; and

(iii) For new non-road development, the NCDOT shall have the option of offsetting part of their nitrogen and phosphorus loads by implementing or funding perpetual offsite management measures. Before using an offsite offset option, a development shall

implement structural stormwater controls that achieve 50 percent or more of the needed load reduction in both nitrogen and phosphorus loading onsite and shall meet any requirements for engineered stormwater controls described in this Item. Offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with the loading rate targets set out in this Item. The NCDOT may use any measure that complies with the requirements of Rules .0240 and ~~.0282~~ .0273 of this Section.

~~(d)~~(b) ~~Establish a~~ Implementation of a program to identify and implement load-reducing opportunities on existing development within the watershed. The long-term objective of this effort shall be for the NCDOT to achieve the nutrient load objectives in 15A NCAC 02B .0275 as applied to existing development under its control, including roads and ~~facilities:~~ facilities. Through this program NCDOT may achieve the nutrient load reduction objective in 15A NCAC 02B .0275 for existing roadway and non-roadway development under its control .The program establishes baseline nutrient loads for roadways and industrial facilities using stormwater runoff nutrient load characterization data collected through the National Pollutant Discharge Elimination System (NPDES) Research Program under NCS0000250 Permit Part II Section G. In addition, the following criteria apply:

~~(i) The NCDOT may achieve the nutrient load reduction objective in 15A NCAC 02B .0275 for existing roadway and non-roadway development under its control by the development of a load reduction program that addresses both roadway and non-roadway development in the Falls watershed. As part of the accounting process described in Item (13) of this Rule, baseline nutrient loads shall be established for roadways and industrial facilities using stormwater runoff nutrient load characterization data collected through the National Pollutant Discharge Elimination System (NPDES) Research Program under NCS0000250 Permit Part II Section G;~~

~~(ii)~~(i) The program ~~shall include~~ includes estimates of, and plans for offsetting, nutrient load increases from lands developed subsequent to the baseline period but prior to implementation of its new development program. It ~~shall include~~ also includes a technical analysis that includes a proposed implementation rate and schedule. This schedule shall provide for proportionate annual progress toward reduction objectives as practicable throughout the proposed compliance period. The program ~~shall identify~~ identifies the types of activities NCDOT intends to implement and types of existing roadway and non-roadway development affected, relative proportions or a prioritization of practices, and the relative magnitude of reductions it expects to achieve from each;

~~(iii)~~(ii) The program to address roadway and non-roadway development may include stormwater retrofits and other load reducing activities in the watershed including: illicit discharge removal; street sweeping; source control activities such as fertilizer management at NCDOT facilities; improvement of existing stormwater structures; use of rain barrels and cisterns; stormwater capture and reuse; and purchase of nutrient reduction credits;

~~(iv)~~(iii) NCDOT may meet minimum implementation rate and schedule requirements by implementing a combination of at least six stormwater retrofits per year for existing development in the Falls watershed or some other minimum amount based on more accurate reduction estimates developed during the accounting tool development process;

~~(v)~~(iv) To the maximum extent practicable, retrofits shall be designed to treat the runoff generated by one inch of rainfall from all surfaces draining to the BMP, ~~by one inch of rainfall,~~ and shall conform to the standards and criteria established in the most recent version of the Division-approved NCDOT BMP Toolbox required under NCDOT's NPDES stormwater permit. To establish removal rates for nutrients for individual practices described in the Toolbox, NCDOT shall submit technical documentation on the nutrient removal performance of BMPs in the Toolbox for Division approval. Upon approval, NCDOT shall incorporate nutrient removal performance data into the BMP Toolbox. If a retrofit is proposed that is not described in the NCDOT BMP Toolbox, then to the maximum extent practicable, such retrofit shall conform to the standards and criteria set forth in the most recent version ~~July 2007 version~~ of the *Stormwater Best Management Practices Manual* published by the Division, or other technically equivalent guidance acceptable to the Division;

~~(e)~~(c) ~~Initiate a~~ Continue Implementation of a "Nutrient Management Education Program" for NCDOT staff and contractors engaged in the application of fertilizers on highway rights of way. The purpose of this program shall be to contribute to the load reduction objectives established in 15A NCAC 02B .0275 through proper application of nutrients, both inorganic fertilizer and organic nutrients, to highway rights of way in the Falls watershed in keeping with the most current state-recognized technical guidance on proper nutrient management; and

~~(f)~~(d) Address compliance with the riparian buffer protection requirements of 15A NCAC 02B .0233 and .0242 through a Division approval process.

~~(10)~~(9) NON-NCDOT RULE IMPLEMENTATION. For all state and federal entities that control lands within the Falls watershed with the exception of the NCDOT, this Rule shall be implemented as follows:

(a) ~~Upon Commission approval of the accounting methods required in Item (13) of this Rule, subject entities shall comply~~ Subject entities shall continue to use the accounting tool approved

by the Commission in July 2012 to comply with the new development ~~with the requirements of~~ requirements established in Items (3) and (4) of this Rule;

(b) By ~~July 15, 2013,~~ June 2017 the Division shall submit a Stage I model local program to the Commission for approval that embodies the criteria described in ~~Items (5) and (6)~~ Items (4) and (5) of this Rule. The Division shall work in cooperation with subject state and federal entities and other watershed interests in developing this model program, which shall include the following:

(i) Methods to quantify load reduction requirements and resulting load reduction assignments for individual entities;

(ii) Methods to account for discharging sand filters, malfunctioning septic systems, and leaking collection systems; and

(iii) Methods to account for load reduction credits from various activities;

(c) Within six months after the Commission's approval of the Stage I model local program, subject entities shall submit load reduction programs that meet or exceed the requirements of ~~Items (5) and (6)~~ Items (4) and (5) of this Rule to the Division for review and preliminary approval and shall begin implementation and tracking of measures to reduce nutrient loads from existing developed lands owned or controlled by the responsible state or federal entity;

(d) Within ~~20~~ 12 months of the Commission's approval of the Stage I model local program, the Division shall provide recommendations to the Commission on existing development load reduction programs. The Commission shall either approve the programs or require changes based on the standards set out in Item (4) and (5) of this Rule. Should the Commission require changes, the applicable state or federal entity shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

(e) Within three months after the Commission's approval of a Stage I existing development load reduction program, the affected entity shall complete adoption of and ~~begin~~ continue implementation of its existing development Stage I load reduction program;

(f) Upon implementation of the programs required under Item (4) of this Rule, state and federal entities subject to this Rule shall provide annual reports to the Division documenting their progress in implementing those requirements within three months following each anniversary of program implementation date until such time the Commission determines they are no longer needed to ensure maintenance of reductions or that standards are protected. State and federal entities shall indefinitely maintain and ensure performance of implemented load-reducing measures;

(g) By ~~January 15, 2021~~January 2021 and every five years thereafter until either accounting determines load reductions have been achieved, standards are met, or the Commission takes

other actions per 15A NCAC 02B .0275, state and federal entities located in the upper Falls watershed as defined in Item (3) of 15A NCAC 02B .0275 shall submit and begin implementation of Stage II load reduction program or program revision to the Division. Within nine months after submittal, the division shall make recommendations to the Commission on approval of these programs. The Commission shall either approve the programs or require changes based on the standards set out in this Rule. Should the Commission require changes, the applicable state or federal entity shall submit revisions within two months, and the Division shall provide follow-up recommendations to the Commission within three months after receiving revisions. Upon approval, the state or federal entity shall adjust implementation based on its approved program;

(h) A state or federal entity may, at any time after commencing implementation of its load reduction program, submit program revisions to the Division for approval based on identification of more cost-effective strategies or other factors not originally recognized;

(i) Once either load reductions are achieved per annual reporting or water quality standards are met in the lake per 15A NCAC 02B .0275, state and federal entities shall submit programs to ensure no load increases and shall report annually per Sub-Item ~~(10)(f)~~(9)(f) on compliance with no increases and take additional actions as necessary; and

~~(j) Beginning January 2016 and every five years thereafter, the Division shall review the accounting methods stipulated under Sub-Item (10)(a) to determine the need for revisions to those methods and to loading reductions assigned using those methods. Its review shall include values subject to change over time independent of changes resulting from implementation of this Rule, such as untreated export rates that may change with changes in atmospheric deposition. It shall also review values subject to refinement, such as nutrient removal efficiencies.~~

~~(11)~~(10) NCDOT RULE IMPLEMENTATION. For the NCDOT, this Rule, shall be implemented as follows:

~~(a) By July 2013, the NCDOT shall submit the Stormwater Management Program for the Falls watershed to the Division for approval. This Program shall meet or exceed the requirements in Item (9) of this Rule;~~

~~(b) By January 15, 2014, the Division shall request the Commission's approval of the NCDOT Stormwater Management Program;~~

~~(c) By January 15, 2014, the NCDOT shall implement the Commission approved Stormwater Management Program; and~~

(a) The NCODT shall continue to implement a single stormwater management program according to their plan approved by the Commission in January 2014 that meets the requirements of Item (9) of this Rule;

~~(d)~~(b) ~~Upon implementation, the~~ NCDOT shall submit annual reports to the Division summarizing its activities in implementing each of the requirements in Item (9) of this Rule. This annual

reporting may be incorporated into annual reporting required under NCDOT's NPDES stormwater permit.

~~(12)~~(11) RELATIONSHIP TO OTHER REQUIREMENTS. A party may in its program submittal request that the Division accept its implementation of another stormwater program or programs, such as NPDES stormwater requirements, as satisfying one or more of the requirements set forth in Items (4) or (5) of this Rule. The Division shall provide determination on acceptability of any such alternatives prior to requesting Commission approval of programs under this Rule. The party shall include in its program submittal technical information demonstrating the adequacy of the alternative requirements.

~~(13)~~(12) ACCOUNTING METHODS. Non-NCDOT entities shall continue to utilize the Jordan/Falls Lake Stormwater Load Accounting Tool approved by the Commission in July 2012 for all applicable load reduction estimation activities or equivalent, more source-specific or more accurate methods acceptable to the Division. Except as for the establishment of baseline loads which were approved by the EMC, NCDOT shall utilize the NCDOT-Jordan/Falls Lake Stormwater Load Accounting Tool approved by the Commission in July 2012 for all applicable load estimation activities or equivalent, more source-specific, or more accurate methods acceptable to the Division. The Division shall periodically revisit these accounting methods to determine the need for revisions to both the methods and to existing development load reduction assignments made using the methods set out in this Rule. It shall do so no less frequently than every 10 years. Its review shall include values subject to change over time independent of changes resulting from implementation of this Rule, such as untreated export rates that may change with changes in atmospheric deposition. It shall also review values subject to refinement, such as BMP nutrient removal efficiencies.~~By July 15, 2012, the Division shall submit a nutrient accounting framework to the Commission for approval. This framework shall include tools for quantifying load reduction assignments on existing development for parties subject to this Rule, load reduction credits from various activities on existing developed lands, and a tool that will allow subject parties to account for loading from new and existing development and loading changes due to BMP implementation. The Division shall work in cooperation with subject parties and other watershed interests in developing this framework. The Division shall periodically revisit these accounting methods to determine the need for revisions to both the methods and to existing development load reduction assignments made using the methods set out in this Rule. It shall do so no less frequently than every 10 years. Its review shall include values subject to change over time independent of changes resulting from implementation of this Rule, such as untreated export rates that may change with changes in atmospheric deposition. It shall also review values subject to refinement, such as BMP nutrient removal efficiencies.~~

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486;*

Eff. January 15, 2011 (this permanent rule replaces the temporary rule approved by the RRC on December 16, 2010).

Amended Eff. August 1, 2017.