

1 15A NCAC 02B .0275 is adopted with changes as published in 24:24 NCR 2194-2199 as follows:

2
3 **15A NCAC 02B .0275 FALLS WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE**

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

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

29 (2) CRITICAL WATER SUPPLY WATERSHED DESIGNATION. Water supply waters designated
30 WS-II, WS-III, and WS-IV within the Falls watershed shall retain their classifications. The
31 remaining waters in the Falls watershed shall be classified WS-V. For waters classified WS-V,
32 the requirements of water supply Rule 15A NCAC 02B .0218 shall be applied. The requirements
33 of all of these water supply classifications shall be retained and applied except as specifically
34 noted elsewhere within the Falls nutrient strategy. In addition, pursuant to G.S. 143-214.5(b), the
35 entire Falls watershed shall be designated a critical water supply watershed and through the Falls
36 nutrient strategy given additional, more stringent requirements than the state minimum water
37 supply watershed management requirements. Water supply requirements of 15A NCAC 02B

1 .0104 apply except to the extent that requirements of the Falls nutrient strategy are more stringent
 2 than provisions addressing agriculture, forestry, and existing development. These requirements
 3 supplement the water quality standards applicable to Class C waters, as described in Rule .0211 of
 4 this Section, which apply throughout the Falls watershed. For WS-II, WS-III, and WS-IV waters,
 5 the retained requirements of Rules 15A NCAC 02B .0214 through .0216 are characterized as
 6 follows:

- 7 (a) Item (1) addressing best usages;
- 8 (b) Item (2) addressing predominant watershed development conditions, discharges expressly
 9 allowed watershed-wide, general prohibitions on and allowances for domestic and
 10 industrial discharges, Maximum Contaminant Levels following treatment, and the local
 11 option to seek more protective classifications for portions of existing water supply
 12 watersheds;
- 13 (c) Sub-Item (3)(a) addressing ~~waste~~ wastewater discharge limitations;
- 14 (d) Sub-Item (3)(b) addressing nonpoint source and stormwater controls; and
- 15 (e) Sub-Items (3)(c) through (3)(h) addressing aesthetic and human health standards.

16 (3) GOAL AND OBJECTIVES. To achieve the purpose of the Falls nutrient strategy, the
 17 Commission establishes the goal of attaining and maintaining nutrient-related water quality
 18 standards identified in ~~Rule .0211 of this section~~ 15A NCAC 02B .0211 throughout Falls
 19 Reservoir pursuant to G.S. 143-215.8B and 143B-282(c) and (d) of the Clean Water
 20 Responsibility Act of 1997. The Commission establishes a staged and adaptive implementation
 21 plan, outlined hereafter, to achieve the following objectives. The objective of Stage I is to, at
 22 minimum, achieve and maintain nutrient-related water quality standards in the Lower Falls
 23 Reservoir as soon as possible but no later than 2021 and to improve water quality in the Upper
 24 Falls Reservoir. The objective of Stage II is to achieve and maintain nutrient-related water quality
 25 standards throughout ~~the Falls Reservoir~~ Reservoir. This is estimated to require a reduction in by
 26 reducing average annual mass loads of nitrogen and phosphorus delivered from the sources named
 27 in Item (6) in the Upper Falls Watershed by forty and seventy-seven percent, respectively, from a
 28 baseline of 2006. The resulting cumulative allowable loads to Falls Reservoir from the watersheds
 29 of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of Reeds Creek shall be 658,000
 30 pounds of nitrogen per year and 35,000 pounds of phosphorus per year. Portions of Falls
 31 Reservoir and its watershed shall be defined as follows:

- 32 (a) Upper Falls Reservoir shall mean that portion of the reservoir upstream of State Route
 33 50;
- 34 (b) Upper Falls Watershed shall mean the area of Falls watershed draining to Upper Falls
 35 Reservoir;
- 36 (c) Lower Falls Reservoir shall mean that portion of the reservoir downstream of State Route
 37 50; and

- 1 (d) Lower Falls Watershed shall mean the area of Falls watershed draining to Lower Falls
2 Reservoir without first passing through Upper Falls Reservoir.
- 3 (4) STAGED IMPLEMENTATION. The Commission shall employ the staged implementation plan
4 set forth below to achieve the goal of the Falls nutrient strategy:
- 5 (a) STAGE I. Stage I requires intermediate or currently achievable controls throughout the
6 Falls watershed with ~~a minimum~~ the objective of reducing nitrogen and phosphorus
7 ~~loading to loading, and attain~~ attaining nutrient-related water quality standards in at least
8 the Lower Falls Reservoir as soon as possible but no later than ~~by~~ 2021, while also
9 improving water quality in the Upper Falls Reservoir as described in this Item.
10 Implementation timeframes are described in individual rules, with full implementation
11 occurring no later than 2021;
- 12 (b) STAGE II. Stage II requires implementation of additional controls in the Upper Falls
13 Watershed beginning no later than 2021 to achieve ~~the nutrient-related water quality~~
14 ~~standards throughout Falls Reservoir~~ percent reduction objective to the maximum extent
15 technically and economically feasible by 2041, 2041, with incremental progress toward
16 this overall objective as described in Sub-Item(5)(a). ~~Implementation timeframes are~~
17 ~~described in individual rules, with full implementation occurring no later than 2036; and~~
- 18 (c) MAINTENANCE OF ALLOCATIONS. Throughout these implementation stages and
19 indefinitely beyond, sources shall maintain the load reductions they achieve and the
20 ultimate allowable loads they attain.
- 21 (5) ADAPTIVE IMPLEMENTATION. The Commission shall employ the following adaptive
22 implementation plan in concert with the staged implementation approach described in this Rule.
- 23 (a) The Division shall perform water quality monitoring throughout Falls Reservoir and
24 shall accept reservoir water quality monitoring data provided by other parties that meet
25 Division standards and quality assurance protocols. The Division shall utilize this data to
26 ~~estimate load reduction achieved~~ produce load reduction estimates and to perform
27 periodic use support assessments pursuant to 40 CFR 130.7(b). It shall ~~utilize~~ evaluate
28 use support determinations to judge progress on and compliance with the goal of the Falls
29 nutrient strategy, including the following assessments:
- 30 (i) Attainment of nutrient-related water quality standards downstream of Highway
31 NC-98 crossing of Falls Reservoir no later than 2016;
- 32 ~~(ii)~~ (ii) Attainment of nutrient-related water quality standards in the Lower Falls
33 Reservoir no later than 2021;
- 34 ~~(iii)~~ (iii) Attainment of nutrient-related water quality standards in the Lick Creek arm of
35 Falls Reservoir and points downstream no later than 2026;
- 36 ~~(iv)~~ (iv) Attainment of nutrient-related water quality standards in the Ledge and Little
37 Lick Creek arms of Falls Reservoir and points downstream no later than 2031;

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

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

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

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

22 | ~~(viii)~~ Where the Division finds that average annual mass loads of nitrogen and
 23 | phosphorus from the watersheds of Ellerbe Creek, Eno River, Little River, Flat
 24 | River, and Knap of Reeds Creek have been reduced to the allowable loads
 25 | identified in Item (3), but that nutrient related water quality standards are not
 26 | attained in a portion or portions of Falls Reservoir, and that standards may not
 27 | be attained, it may consider re modeling Falls Reservoir for the purpose of
 28 | establishing revised reduction needs and developing a revised nutrient strategy
 29 | through additional rulemaking. The Division shall determine the likelihood of
 30 | attaining standards by comparing the scale of impairment against the recency
 31 | and magnitude of load reduction measures implemented in Upper Falls
 32 | watershed.

33 | ~~(b)~~ Recognizing the uncertainty associated with model based load reduction targets, to
 34 | ensure that allowable loads to Falls Reservoir remain appropriate as implementation
 35 | proceeds, a party may develop and submit for Commission approval supplemental
 36 | nutrient response modeling of Falls Reservoir based on additional data collected after a

1 ~~period of implementation. The Commission may consider revisions to the requirements~~
2 ~~of Stage II based on the results of such modeling according to the following criteria:~~

3 ~~(i) A party shall obtain Division review and approval of any monitoring study plan~~
4 ~~and description of the modeling framework to be used prior to commencement~~
5 ~~of such a study. The study plan and modeling framework shall meet any~~
6 ~~Division requirements for data quality and model support or design in place at~~
7 ~~that time;~~

8 ~~(ii) Supplemental modeling shall include a minimum of three years of lake water~~
9 ~~quality data unless a party can provide information to demonstrate that a shorter~~
10 ~~time span is sufficient;~~

11 ~~(iii) The Commission may review Stage II requirements if a party submits~~
12 ~~supplemental modeling data, products and results acceptable to the Commission~~
13 ~~for this purpose;~~

14 ~~(iv) The Commission may accept modeling products and results that estimate a~~
15 ~~range of combinations of nitrogen and phosphorus percentage load reductions~~
16 ~~needed to meet the goal of the Falls nutrient strategy, along with associated~~
17 ~~allowable loads to Falls Reservoir, from the watersheds of Ellerbe Creek, Eno~~
18 ~~River, Little River, Flat River, and Knap of Reeds Creek and that otherwise~~
19 ~~comply with the requirements of this Item. Such modeling may incorporate the~~
20 ~~results of studies that provide new data on various nutrient sources such as~~
21 ~~atmospheric deposition, internal loading, and loading from tributaries other than~~
22 ~~those identified in this Sub item;~~

23 ~~(v) Where supplemental modeling is accepted by the Commission, and results~~
24 ~~indicate allowable loads of nitrogen and phosphorus to Falls Reservoir from the~~
25 ~~watersheds of Ellerbe Creek, Eno River, Little River, Flat River, and Knap of~~
26 ~~Reeds Creek that are substantially different than those identified in Item (3),~~
27 ~~then the Commission may establish those allowable loads as the revised~~
28 ~~objective of Stage II relative to their associated baseline values. Otherwise, the~~
29 ~~Commission shall continue to implement the Falls nutrient strategy as~~
30 ~~established in this Rule;~~

31 ~~(vi) Where the substantially different allowable loads to Falls Reservoir are greater~~
32 ~~than those identified in Item (3), the Division shall work with affected parties to~~
33 ~~revise the accounting and implementation for individual rules according to these~~
34 ~~less stringent requirements. The Division shall establish revised allocations and~~
35 ~~the Director shall notify all affected parties of these revised requirements and~~
36 ~~allocations. Until such revisions are completed, implementation shall continue~~
37 ~~according to existing requirements; and~~

1 ~~(vii) Where the substantially different allowable loads to Falls Reservoir are lesser~~
 2 ~~than those identified in Item (3), the Commission may initiate rulemaking to~~
 3 ~~amend the Falls nutrient strategy rules to incorporate these more stringent~~
 4 ~~objectives. Until such amendments become effective, strategy implementation~~
 5 ~~shall continue according to existing requirements.~~

6 ~~(e) Nothing in this strategy shall be construed to limit, expand, or modify the authority of the~~
 7 ~~Commission to undertake alternative regulatory actions otherwise authorized by state or~~
 8 ~~federal law, including the reclassification of waters of the State pursuant to G.S. 143-~~
 9 ~~214.1, the revision of water quality standards pursuant to G.S. 143-214.3, and the~~
 10 ~~granting of variances pursuant to G.S. 143-215.3.~~

11 ~~(d)(b)~~ Given that these regulations require significant load reductions over extended
 12 timeframes, to address resulting uncertainties including those related to technological
 13 advancement, scientific understanding, actions chosen by affected parties, resultant
 14 loading effects, and loading effects of other regulations, the Division shall report to the
 15 Commission and provide information to the public in January 2016 and every five years
 16 thereafter as necessary. The reports shall address all of the following subjects:

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

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

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

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

26 ~~(iv)(v)~~ Results of any studies evaluating instream loading changes resulting from
 27 implementation of ~~individual~~ rules;

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

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

33 ~~(vii)(viii)~~ Results of applicable studies, monitoring, and modeling from which a
 34 baseline will be established to address changes in atmospheric deposition of
 35 nitrogen; ~~and establish a baseline for atmospheric nitrogen deposition;~~

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

1 ~~(viii) Projected reductions in atmospheric deposition based on current modeling;~~

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

3 ~~(x)(xi) Updates to nutrient loading accounting tools; and~~

4 ~~Evaluation of available nutrient related lake monitoring data; and~~

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

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

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

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

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

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

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

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

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

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

32 (i) A person shall obtain Division review and approval of any monitoring study
33 plan and description of the modeling framework to be used prior to
34 commencement of such a study. The study plan and modeling framework shall
35 meet any Division requirements for data quality and model support or design in
36 place at that time. Within 180 days of receipt, the division shall either approve
37 the plan and modeling framework or notify the person seeking to perform the

1 supplemental modeling of changes to the plan and modeling framework required
 2 by the Division;

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

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

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

26 ~~(e)~~ Nothing in this strategy shall be construed to limit, expand, or modify the authority of the
 27 Commission to undertake alternative regulatory actions otherwise authorized by state or
 28 federal law, including the reclassification of waters of the State pursuant to G.S. 143-
 29 214.1, the revision of water quality standards pursuant to G.S. 143-214.3, and the
 30 granting of variances pursuant to G.S. 143-215.3.

31 (6) RULES ENUMERATED. The Falls nutrient strategy rules shall be titled as follows:

- 32 (a) Rule .0275 Purpose and Scope;
 33 (b) Rule .0276 Definitions. An individual rule may contain additional definitions for terms
 34 that are used in that rule only;
 35 (c) Rule .0277 Stormwater Management for New Development;
 36 (d) Rule .0278 Stormwater Management for Existing Development;
 37 (e) Rule .0279 Wastewater Discharge Requirements;

- 1 (f) Rule .0280 Agriculture;
- 2 (g) Rule .0281 Stormwater Requirements for State and Federal Entities;
- 3 (h) Rule .0282 Options for Offsetting Nutrient Loads;
- 4 (i) Rule .0283 Fertilizer Management; and
- 5 (j) Rule .0315 Neuse River Basin.
- 6 (7) APPLICABILITY. Categories of parties responsible for implementing the Falls nutrient strategy
- 7 rules and, as applicable, their geographic scope of responsibility, are identified in each rule. The
- 8 specific local governments responsible for implementing Rules .0277, .0278, and .0282 shall be as
- 9 follows:
- 10 (a) All incorporated municipalities, as identified by the Office of the Secretary of State, with
- 11 planning jurisdiction within or partially within the Falls watershed. Those municipalities
- 12 are currently:
- 13 (i) Butner;
- 14 (ii) Creedmoor;
- 15 (iii) Durham;
- 16 (iv) Hillsborough;
- 17 (v) Raleigh;
- 18 (vi) Roxboro;
- 19 (vii) Stem; and
- 20 (viii) Wake Forest.
- 21 (b) All counties with jurisdiction in Falls watershed and where municipalities listed in Sub-
- 22 Item (6)(a) do not have an implementation requirement:
- 23 (i) Durham;
- 24 (ii) Franklin;
- 25 (iii) Granville;
- 26 (iv) Orange;
- 27 (v) Person; and
- 28 (vi) Wake.
- 29 (c) A unit of government may arrange through interlocal agreement or other instrument of
- 30 mutual agreement for another unit of government to implement portions or the entirety of
- 31 a program required or allowed under any rule of this strategy to the extent that such an
- 32 arrangement is otherwise allowed by statute. The governments involved shall submit
- 33 documentation of any such agreement to the Division. No such agreement shall relieve a
- 34 unit of government from its responsibilities under these rules.
- 35 (8) ENFORCEMENT. Failure to meet requirements of Rules .0275, .0277, .0278, .0279, .0280, .0281,
- 36 or .0282 of this Section may result in imposition of enforcement measures as authorized by G. S.

1 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C
2 (injunctive relief).

3

4 *History Note: Authority G. S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-*
5 *215.3(a)(1); 143-215.6A; 143-215.6B; 143 215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L.*
6 *2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486.*

7 *Temporary Adoption Eff. January 15, 2011;*

8 *Eff. Upon Legislative Approval.*

1 15A NCAC 02B .0276 is adopted with changes as published in 24:24 NCR 2199-2201 as follows:
2

3 **15A NCAC 02B .0276 FALLS WATER SUPPLY NUTRIENT STRATEGY: DEFINITIONS**

4 The following words and phrases, which are not defined in G.S. 143, Article 21, shall be interpreted as follows for
5 the purposes of the Falls nutrient strategy:

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

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

11 ~~(3)~~ "Atmospheric nitrogen" means total oxidized nitrogen (NO_x) which includes all nitrogen oxides
12 (including NO_2 , NO , N_2 , nitrogen trioxide [N_2O_3], nitrogen tetroxide [N_2O_4], dinitrogen pentoxide
13 [N_2O_5], nitric acid (HNO_3) peroxyacid nitrates (PAN)), the sum of which is referred to as reduced
14 nitrogen (NH_x).

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

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

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

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

24 (a) It either is built or has established a vested right based on statutory or common law as
25 interpreted by the courts, as of the effective date of either local new development
26 stormwater programs implemented under 15A NCAC 02B .0277 for projects that do not
27 require a state permit or, as of the applicable compliance date established in 15A NCAC
28 02B .0281(5) and (6); or

29 (b) It occurs after the compliance date set out in Sub-Item ~~(5)~~(d) of Rule .0277 but does not
30 result in a net increase in built-upon area.

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

35 (8) "Falls nutrient strategy," or "Falls water supply nutrient strategy" means the set of 15A NCAC
36 02B .0275 through .0282 and .0315(p).

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

- 1 (10) "Upper Falls Reservoir" means that portion of the reservoir upstream of State Route 50.
- 2 (11) "Upper Falls Watershed" means that area of Falls watershed draining to Upper Falls Reservoir.
- 3 (12) "Lower Falls Reservoir" means that portion of the reservoir downstream of State Route 50.
- 4 (13) "Lower Falls Watershed" means that are of Falls watershed draining to lower falls Reservoir
- 5 without first passing through Upper Falls Reservoir.
- 6 (14) "Load" means the mass quantity of a nutrient or pollutant released into surface waters over a given
- 7 time period. Loads may be expressed in terms of pounds per year and may be expressed as
- 8 "delivered load" or an equivalent "discharge load."
- 9 (15) "Load allocation" means the same as set forth in federal regulations 40 CFR 130.2(g), which is
- 10 incorporated herein by reference, including subsequent amendments and editions. These
- 11 regulations may be obtained at no cost from <http://www.epa.gov/lawsregs/search/40cfr.html> or
- 12 from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.
- 13 (16) "New development" means any development project that does not meet the definition of existing
- 14 development set out in this Rule.
- 15 (17) "Nitrogen" or "total nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of
- 16 nitrogen in a water or wastewater.
- 17 (18) "NPDES" means National Pollutant Discharge Elimination System, and connotes the permitting
- 18 process required for the operation of point source discharges in accordance with the requirements
- 19 of Section 402 of the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq.
- 20 (19) "Nutrients" means total nitrogen and total phosphorus.
- 21 ~~(20) "Perennial stream" means a well defined channel that contains water year round during a year of~~
- 22 ~~normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the~~
- 23 ~~primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream~~
- 24 ~~exhibits the typical biological, hydrological, and physical characteristics commonly associated with the~~
- 25 ~~continuous conveyance of water.~~
- 26 (21) "Phosphorus" or "total phosphorus" means the sum of the orthophosphate, polyphosphate, and
- 27 organic forms of phosphorus in a water or wastewater.
- 28 (22) "Stream" means a body of concentrated flowing water in a natural low area or natural channel on
- 29 the land surface.
- 30 (23) "Surface waters" means all waters of the state as defined in G.S. 143-212 except underground
- 31 waters.
- 32 (24) "Technical specialist" means the same as defined in 15A NCAC 06H .0102(9).
- 33 ~~(25) "Total Maximum Daily Load," or "TMDL," means the same as set forth in federal regulations 40~~
- 34 ~~CFR 130.2(i) and 130.7(c)(1), which are incorporated herein by reference, including subsequent~~
- 35 ~~amendments and editions. These regulations may be obtained at no cost from~~
- 36 ~~<http://www.epa.gov/lawsregs/search/40cfr.html> or from the U.S. Government Printing Office, 732~~
- 37 ~~North Capitol St. NW, Washington D.C., 20401.~~

1 ~~(2624)~~ "Total nitrogen" or "nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of
2 nitrogen in a water or wastewater.

3 ~~(2725)~~ "Total phosphorus" or "phosphorus" means the sum of the orthophosphate, polyphosphate, and
4 organic forms of phosphorus in a water or wastewater.

5 ~~(3826)~~ "Wasteload" means the mass quantity of a nutrient or pollutant released into surface waters by a
6 wastewater discharge over a given time period. Wasteloads may be expressed in terms of pounds
7 per year and may be expressed as "delivered wasteload" or an equivalent "discharge wasteload."

8 ~~(2927)~~ "Wasteload allocation" means the same as set forth in federal regulations 40 CFR 130.2(h), which
9 is incorporated herein by reference, including subsequent amendments and editions. These
10 regulations may be obtained at no cost from <http://www.epa.gov/lawsregs/search/40cfr.html> or
11 from the U.S. Government Printing Office, 732 North Capitol St. NW, Washington D.C., 20401.

12
13 *History Note:* *Authority G S. 143-214.1; 1432-214.3;143-214.5; 143-214.7; 143-215.1; 143215.3; 143-*
14 *215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L.*
15 *2005-190; S.L. 2006-259; S.L 2009-337; S.L 2009-486*
16 *Temporary Adoption Eff. January 15, 2011;*
17 *Eff. Upon Legislative Approval.*

1 715A NCAC 02B .0275 is adopted with changes as published in 24:24 NCR 2201-2205 as follows:

2
 3 **15A NCAC 02B .0277 FALLS RESERVOIR WATER SUPPLY NUTRIENT STRATEGY:**
 4 **STORMWATER MANAGEMENT FOR NEW DEVELOPMENT**

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

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

- 8 (a) To achieve and maintain the nitrogen and phosphorus loading objectives established for
 9 Falls Reservoir in 15A NCAC 02B .0275 from lands in the Falls watershed on which new
 10 development occurs;
- 11 (b) To provide control for stormwater runoff from new development in Falls watershed to
 12 ensure that the integrity and nutrient processing functions of receiving waters and
 13 associated riparian buffers are not compromised by erosive flows; and
- 14 (c) To protect the water supply, aquatic life and recreational uses of Falls Reservoir from the
 15 potential impacts of new development.

16 (2) APPLICABILITY. This Rule shall apply to those areas of new development, as defined in 15A
 17 NCAC 02B .0276, that lie within the Falls watershed and the planning jurisdiction of a
 18 municipality or county that is identified in 15A NCAC 02B .0275. This rule shall not apply to
 19 development activities on state and federal lands that are captured under Rule .0281 of this
 20 Section.

21 (3) REQUIREMENTS. All local governments subject to this Rule shall develop stormwater
 22 management programs for submission to and approval by the Commission, to be implemented in
 23 areas described in Item (2) of this ~~Rule, Rule, based on the standards in this Item:~~ Nothing in this
 24 rule preempts local governments from establishing requirements that are more restrictive than
 25 those set forth in this rule. Local government stormwater management programs shall include the
 26 following elements and the standards contained in Item (4):

27 ~~*****(Land Disturbance Threshold Option: A)*****~~

28 (a) ~~An approved~~ The requirement that a stormwater management plan shall be required submitted
 29 for local government approval based on the standards in Item (4) for all proposed new
 30 development disturbing ~~one~~ one-half acre or more for single family and duplex residential
 31 property and recreational facilities, and ~~one-half acre~~ 12,000 square feet or more for
 32 commercial, industrial, institutional, multifamily residential, or local government property.
 33 ~~These stormwater plans shall not be approved by the subject local governments unless the~~
 34 ~~following criteria are met:~~

35 ~~*****(Land Disturbance Threshold Option: B)*****~~

36 (a) ~~An approved stormwater management plan shall be submitted for local government~~
 37 ~~approval based on the standards in Item (4) required for all proposed new development~~

1 | ~~disturbing 5,000 square feet or more. These stormwater plans shall not be approved by~~
 2 | ~~the subject local governments unless the following criteria are met:~~

3 | ~~(i) Nitrogen and phosphorus loads contributed by the proposed new development~~
 4 | ~~activity shall not exceed the unit area mass loading rates as follows for nitrogen~~
 5 | ~~and phosphorus, respectively, expressed in units of pound/acre/year: 1.1 and~~
 6 | ~~0.33. The developer shall determine the load reductions needed to meet these~~
 7 | ~~loading rate targets by using the load calculation method called for in Sub-Item~~
 8 | ~~(4)(a) or other equivalent method acceptable to the Division;~~

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

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

13 | ~~(4) PLAN APPROVAL REQUIREMENTS. A developer's stormwater plans shall not be approved by~~
 14 | ~~a subject local governments unless the following criteria are met:~~

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

32 | ~~*****(Onsite Treatment Option: A (50 Percent N / 60 Percent P))*****~~

33 | ~~(ii) The developer shall have the option of offsetting part of the nitrogen and~~
 34 | ~~phosphorus load by implementing or funding offsite management measures.~~
 35 | ~~Before using an offsite offset option, a development shall implement structural~~
 36 | ~~stormwater controls that attain a minimum of 60 percent reduction in post-~~
 37 | ~~construction nitrogen loading rate and 60 percent reduction in post construction~~

1 phosphorus loading rate on site and shall meet any requirements for engineered
2 stormwater controls described in Sub-Item (3)(a)(iii) of this Rule. Offsite
3 offsetting measures shall achieve at least equivalent reductions in nitrogen and
4 phosphorus loading to the remaining reduction needed onsite to comply with the
5 loading rate targets set out in Sub-Item (3)(a)(i) of this Rule. A developer may
6 make offset payments to the NC Ecosystem Enhancement Program contingent
7 upon acceptance of payments by that Program. A developer may use an offset
8 option provided by the local government in which the development activity
9 occurs. A developer may propose other offset measures to the local
10 government, including providing his or her own offsite offset or utilizing a
11 private seller. All offset measures identified in this Sub-Item shall meet the
12 requirements of 15A NCAC 02B .0282;

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

17 (i) Proposed new development activity disturbing at least one-half acre but less than one
18 acre of land for single family and duplex residential property and recreational
19 facilities, except as stated in Sub-Item (3)(b)(iii), shall achieve 30 percent or more
20 of the needed load reduction in both nitrogen and phosphorus loading onsite and
21 shall meet any requirements for engineered stormwater controls described in Sub-
22 Item (3)(d) of this Rule;

23 (ii) Proposed new development activity disturbing at least 12,000 but less than one acre
24 of land for commercial, industrial, institutional, multifamily residential, or local
25 government property, except as stated in Sub-Item (3)(b)(iii), shall achieve 30
26 percent or more of the needed load reduction in both nitrogen and phosphorus
27 loading onsite and shall meet any requirements for engineered stormwater controls
28 described in Sub-Item (3)(d) of this Rule;

29 (iii) Except as stated in Sub-Item (3)(b)(iii), proposed new development activity that
30 disturbs one acre of land or more shall achieve 50 percent or more of the needed load
31 reduction in both nitrogen and phosphorus loading onsite and shall meet any
32 requirements for engineered stormwater controls described in Sub-Item (3)(d) of this
33 Rule; or

34 (iv) Proposed development that would replace or expand structures or improvements that
35 existed as of December 2006, the end of the baseline period, and that increases
36 impervious surface within a local government's designated downtown area,
37 regardless of area disturbed, shall achieve 30 percent of the needed load reduction in

1 both nitrogen and phosphorus onsite, and shall meet any requirements for engineered
 2 stormwater controls described in Sub-Item (3)(d) of this Rule.

3 (c) Offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and
 4 phosphorus loading to the remaining reduction needed onsite to comply with the loading
 5 rate targets set out in Sub-Item (43)(a)(i) of this Rule. A developer may use any measure
 6 that complies with the requirements of Rules .0240 and .0282. of this Section.

7 ~~***Onsite Treatment Option: B (60 Percent N / 60 Percent P)***~~

8 (ii) ~~The developer shall have the option of offsetting part of the nitrogen and~~
 9 ~~phosphorus load by implementing or funding offsite management measures.~~
 10 ~~Before using an offsite offset option, a development shall implement structural~~
 11 ~~stormwater controls that attain a minimum of 60 percent reduction in post-~~
 12 ~~construction nitrogen loading rate and 60 percent reduction in post construction~~
 13 ~~phosphorus loading rate on site and shall meet any requirements for engineered~~
 14 ~~stormwater controls described in Sub Item (3)(a)(iii) of this Rule. Offsite~~
 15 ~~offsetting measures shall achieve at least equivalent reductions in nitrogen and~~
 16 ~~phosphorus loading to the remaining reduction needed onsite to comply with the~~
 17 ~~loading rate targets set out in Sub Item (3)(a)(i) of this Rule. A developer may~~
 18 ~~make offset payments to the NC Ecosystem Enhancement Program contingent~~
 19 ~~upon acceptance of payments by that Program. A developer may use an offset~~
 20 ~~option provided by the local government in which the development activity~~
 21 ~~occurs. A developer may propose other offset measures to the local~~
 22 ~~government, including providing his or her own offsite offset or utilizing a~~
 23 ~~private seller. All offset measures identified in this Sub Item shall meet the~~
 24 ~~requirements of 15A NCAC 02B .0282;~~

25 (diii) Proposed new development subject to NPDES, water supply, and other state-mandated
 26 stormwater regulations shall comply with those regulations in addition to the other
 27 requirements of this Sub-Item. Proposed new development in any water supply
 28 watershed in the Falls watershed designated WS-II, WS-III, or WS-IV shall comply with
 29 the density-based restrictions, obligations, and requirements for engineered stormwater
 30 controls, clustering options, operation and maintenance responsibilities, vegetated
 31 setbacks, land application, and landfill provisions described in Sub-Items (3)(b)(i) and
 32 (3)(b)(ii) of the applicable Rule among 15A NCAC 02B .0214 through .0216.
 33 ~~Notwithstanding Provided, the allowance in water supply watershed rules for 10 percent~~
 34 ~~of a jurisdiction to be developed at up to 70 percent built-upon area without stormwater~~
 35 ~~treatment, proposed new development in the Falls watershed shall not have the option to~~
 36 ~~forego treatment; treatment shall not be available in the Falls watershed.~~

- 1 | ~~(eiv)~~ Stormwater systems shall be designed to control and treat at a minimum the runoff
2 | generated from all surfaces in the project area by one inch of rainfall. The treatment
3 | volume shall be drawn down pursuant to standards specific to each practice as provided
4 | in the most recent version of the *Stormwater Best Management Practices Manual*
5 | published by the Division, or other at least technically equivalent standards acceptable to
6 | the Division. ~~To ensure that the integrity and nutrient processing functions of receiving
7 | waters and associated riparian buffers are not compromised by erosive flows, stormwater
8 | flows from new development shall not contribute to degradation of waters of the State.
9 | At a minimum, the new development shall not result in a net increase in peak flow
10 | leaving the site pre-development conditions for the one year, 24 hour storm event;~~
- 11 | (f) To ensure that the integrity and nutrient processing functions of receiving waters and
12 | associated riparian buffers are not compromised by erosive flows, at a minimum, the new
13 | development shall not result in a net increase in peak flow leaving the site from pre-
14 | development conditions for the one-year, 24-hour storm event.
- 15 | ~~(v) — Proposed development that would replace or expand structures or improvements
16 | that existed as of December 2006, the end of the baseline period, and that would
17 | not result in a net increase in built upon area shall not be required to meet the
18 | nutrient loading targets or high density requirements except to the extent that it
19 | shall provide stormwater control at least equal to the previous development.
20 | Proposed new development that would replace or expand existing structures or
21 | improvements and would result in a net increase in built upon area shall have
22 | the option either to achieve at least the percentage loading reduction objectives
23 | stated in 15A NCAC 02B .0275 as applied to nitrogen and phosphorus loading
24 | from the previous development for the entire project site, or to meet the loading
25 | rate targets described in Sub Item (3)(a)(i). These requirements shall supersede
26 | those identified in 15A NCAC 02B .0104(q);~~
- 27 | ~~(vi) Proposed redevelopment that increases impervious surface within a local government's
28 | designated downtown area shall achieve a 30 percent reduction in both nitrogen and
29 | phosphorus loading from the untreated condition onsite before the remainder of the 40
30 | percent nitrogen and 77 percent phosphorus reduction from the previous condition may
31 | be achieved through offsite offsets;~~
- 32 | ~~(gvii) New development may satisfy the requirements of this Rule by meeting the post-~~
33 | ~~development hydrologic criteria set out in Chapter 2 of the North Carolina Low Impact~~
34 | ~~Development Guidebook dated June 2009, or the hydrologic criteria in the most recent~~
35 | ~~version of this that guidebook;~~

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

4 ~~(b)~~ A plan to ensure maintenance of best management practices (BMPs) implemented as a
 5 result of the provisions in Sub Item (3)(a) of this Rule for the life of the development;

6 ~~(c)~~ A plan to ensure enforcement and compliance with the provisions in Sub Item (3)(a) of
 7 this Rule for the life of the new development;

8 ~~(d)~~ Nothing in these rules preempts local governments from establishing requirements that
 9 are more restrictive than those set forth in these rules.

10 (54) RULE IMPLEMENTATION. This Rule shall be implemented as follows:

11 (a) Within two months after the effective date of this Rule, the Division shall submit a model
 12 local stormwater program, including a model local ordinance that embodies the criteria
 13 described in Item (3) and (4) of this Rule to the Commission for approval. The model
 14 program shall include a tool that will allow developers to account for nutrient loading
 15 from development lands and loading changes due to BMP implementation to meet the
 16 requirements of Item (3) and (4) of this Rule. The accounting tool shall utilize nutrient
 17 efficiencies and associated design criteria established for individual BMPs in the most
 18 recent version of the *Stormwater Best Management Practices Manual* published by the
 19 Division, or other more precise standards acceptable to the Division. At such time as data
 20 quantifying nutrient loads from onsite wastewater systems is made available, the new
 21 development nutrient export accounting tool shall be revised to require accounting for
 22 nutrient loading from onsite wastewater from newly developed lands that use such
 23 systems. Should research quantify significant loading from onsite wastewater systems,
 24 the Division may also make recommendations to the Commission for Public Health to
 25 initiate rulemaking to reduce nutrient loading to surface waters from these systems. The
 26 Division shall work in cooperation with subject local governments and other watershed
 27 interests in developing this model program.

28 (b) Within five months after the Commission's approval of the model local stormwater
 29 program and model ordinance, subject local governments shall submit stormwater
 30 management programs, in conjunction with similar requirements in 15A NCAC 02B
 31 .0278, to the Division for preliminary approval. These local programs shall meet or
 32 exceed the requirements in Item (3) and (4) of this Rule;

33 (c) Within 10 months after the Commission's approval of the model local stormwater
 34 program, the Division shall provide recommendations to the Commission on local
 35 stormwater programs. The Commission shall either approve the programs or require
 36 changes based on the standards set out in Item (3) and (4) of this Rule. Should the
 37 Commission require changes, the applicable local government shall have two months to

1 submit revisions, and the Division shall provide follow-up recommendations to the
2 Commission within two months after receiving revisions;

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

7 (e) Upon implementation, subject local governments shall submit annual reports to the
8 Division summarizing their activities in implementing each of the requirements in Item
9 (3) and (4) of this Rule, including changes to nutrient loading. ~~due to implementation of~~
10 ~~Sub-Item (3)(a) of this Rule.~~

11 (65) EQUIVALENT PROGRAM OPTION. A local government may in its program submittal under
12 Sub-Item (4)(b) of this Rule request that the Division accept the local government's
13 implementation of another stormwater program or programs as satisfying one or more of the
14 requirements set forth in Item (3) and (4) of this rule. The Division will provide determination on
15 the acceptability of any such alternative prior to requesting Commission approval of local
16 programs as required in Sub-Item (54)(c) of this Rule. Should a local government propose
17 alternative requirements to achieve and maintain the rate targets described in Sub-Item (43)(a)(i)
18 of this Rule, it shall include in its program submittal technical information demonstrating the
19 adequacy of those ~~requirements, requirements.~~ Should an alternative program propose monitoring
20 of watersheds to compare measured loading to expected loading, it shall ~~and~~ at a minimum include
21 the following:

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

24 (b) At least three years of continuous flow and nutrient monitoring data demonstrating that
25 watershed loading rates are at or below ~~the rate targets described in~~ rates that would result
26 from meeting the requirements of this Rule and Rule .0278 of this Section based on the
27 land cover composition of the watershed ~~Sub-Item (43)(a)(i) of this Rule;~~

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

31 (d) A corrective action plan to be implemented should data collected under the ongoing
32 monitoring program demonstrate watershed loading is within 10 percent of the rate
33 ~~targets described in Sub-Item (43)(a)(i) of this Rule~~ estimated in compliance with this
34 Item;

35 (e) Should a local government submit an alternate program for consideration that includes
36 areas within its jurisdiction outside of the monitored watershed it shall submit technical
37 information demonstrating the areas outside of the monitored watershed can reasonably

1 | be expected to load at equal or lesser rates than ~~the rate targets described in Sub Item~~
2 | ~~(43)(a)(i) of this Rule~~ those estimated in compliance with this Item based on comparative
3 | analysis of land uses and other factors affecting nutrient loading.

4 |
5 | *History Note: Authority G. S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-*
6 | *215.3(a)(1); 143-215.6A; 143-215.6B; 143 215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L.*
7 | *2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486.*
8 | *Temporary Adoption Eff. January 15, 2011;*
9 | *Eff. Upon Legislative Approval.*

1 15A NCAC 02B .0278 is adopted with changes as published in 24:24 NCR 2205-21209 as follows:

2
3 **15A NCAC 02B .0278 FALLS WATER SUPPLY NUTRIENT STRATEGY: STORMWATER**
4 **MANAGEMENT FOR EXISTING DEVELOPMENT**

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

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

- 15 (a) To achieve and maintain the nonpoint source nitrogen and phosphorus percentage
16 reduction objectives established for Falls Reservoir in Rule 15A NCAC 02B .0275 on
17 nutrient loading from existing development in the Falls watershed relative to the baseline
18 period defined in that Rule. Existing development is defined in Rule 15A NCAC 02B
19 .0276; and
20 (b) To protect the water supply, aquatic life, and recreational uses of Falls Reservoir.

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

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

- 28 (a) In Stage I, a local government subject to this Rule shall implement a load reduction
29 program that provides estimates of, and plans for offsetting within 10 years of the
30 effective date of this Rule, nutrient loading increases from lands developed subsequent to
31 the baseline period ~~but prior to implementation of a~~ and not subject to the requirements of
32 the local government's Falls Lake new development stormwater program. For these
33 post-baseline existing developed lands, the current loading rate shall be compared to the
34 loading rate for these lands prior to development for the acres involved, and the
35 difference shall constitute the load reduction need in annual mass load, in pounds per
36 year. Alternatively, a local government may assume uniform pre-development loading
37 rates of 2.89 pounds/acre/year N and 0.63 pounds/acre/year P for these lands. The local

1 government shall achieve this Stage I load reduction within 10 years of the effective date
 2 of this Rule. This Stage I program shall meet the criteria defined in Item (4) of this Rule.

3 (b) ~~Ten~~ 10 years after the effective date of this Rule and every five years thereafter, a local
 4 government located in the Upper Falls Watershed as defined in Item (3) of Rule 15A
 5 NCAC 02B .0275 shall submit and concurrently begin implementing a Stage II load
 6 reduction ~~program designed to achieve the percent load reduction goals from existing~~
 7 ~~developed lands in its jurisdiction, that includes timeframes for achieving these goals and~~
 8 ~~that meets the criteria defined in Item (4) of this Rule.~~ that meets the following
 9 requirements:

10 (i) Provided that a local government achieves the Stage I reduction objectives
 11 described in this item, a local government's initial Stage II load reduction
 12 program shall provide for an annual expenditure that equals or exceeds the
 13 average annual amount the local government has spent to achieve nutrient
 14 reductions from existing development during the last seven years of Stage I. A
 15 local government's expenditures shall include all local government funds,
 16 including any state and federal grant funds used to achieve nutrient reductions
 17 from existing developed lands. The cost of achieving reductions from municipal
 18 wastewater treatment plants shall not be included in calculating a local
 19 government's expenditures. Notwithstanding this requirement, the EMC may
 20 approve an initial Stage II load reduction program based on a lower level of
 21 expenditure if the local government demonstrates that continuing the prior level
 22 of expenditure is not reasonable or cost-effective given the reductions that will
 23 be achieved, or the expenditure would cause serious financial hardship to the
 24 local government.

25 (ii) If Stage I reduction objectives are not achieved, a local government's initial
 26 Stage II load reduction program shall provide for an annual expenditure that
 27 equals or exceeds the average annual amount the local government has spent to
 28 achieve nutrient reductions from existing development during the highest three
 29 years of implementation of Stage I. Annual expenditures shall be calculated in
 30 accordance with Sub-Item (3)(b)(i).

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

35 (4) ELEMENTS OF LOAD REDUCTION PROGRAMS. A local government's load reduction
 36 program shall address the following elements:

- 1 (a) Jurisdictions in the Eno River and Little River subwatersheds shall, as a part of their
2 Stage I load reduction programs, begin and continuously implement a program to reduce
3 loading from discharging sand filters and malfunctioning septic systems discharging into
4 waters of the State within those jurisdictions and subwatersheds.
- 5 (b) Jurisdictions within any Falls subwatershed in which chlorophyll a levels have exceeded
6 40 micrograms/liter in more than seventy-five percent of the monitoring events in any
7 calendar year shall, as part of their Stage I load reduction programs, begin and
8 continuously implement a program to reduce nutrient loading into the waters of the State
9 within those jurisdictions and that subwatershed.
- 10 (c) The total amount of nutrient loading reductions in Stage I is not increased for local
11 jurisdictions by the requirements to add specific program components to address loading
12 from malfunctioning septic systems and discharging sand filters or high nutrient loading
13 levels pursuant to Sub-Items (4)(a) and (b) of this Rule.
- 14 (d) In preparation for implementation of their Stage I and Stage II load reduction programs,
15 local governments shall develop inventories and characterize load reduction potential to
16 the extent that accounting methods allow of the following within two years of the
17 effective date of this Rule:
- 18 (i) Wastewater collection systems;
- 19 (ii) Discharging sand filter systems, including availability of or potential for central
20 sewer connection;
- 21 (iii) Properly functioning and malfunctioning septic systems;
- 22 (iv) Restoration opportunities in utility corridors;
- 23 (v) Fertilizer management plans for local government-owned lands;
- 24 (vi) Structural stormwater practices, including intended purpose, condition, potential
25 for greater nutrient control; and
- 26 (vii) Wetlands and riparian buffers including potential for restoration opportunities.
- 27 (e) A local government's load reduction need shall be based on the developed lands that fall
28 within its general police powers and within the Falls watershed.
- 29 (f) The load reduction need shall not include lands under state or federal control, and a
30 county shall not include lands within its jurisdictional boundaries that are under
31 municipal police powers.
- 32 (g) Nitrogen and phosphorus loading from existing developed lands, including loading from
33 onsite wastewater treatment systems to the extent that accounting methods allow, shall be
34 calculated by applying the accounting tool described in Sub-Item (7)(a) and shall quantify
35 baseline loads of nitrogen and phosphorus to surface waters in the local government's
36 jurisdiction as well as loading changes post-baseline. It shall also calculate target nitrogen
37 and phosphorus loads and corresponding load reduction needs.

- 1 (h) The Commission shall recognize reduction credit for early implementation of policies
2 and practices implemented after January 1, 2007 and before timeframes required by this
3 Rule, to reduce runoff and discharge of nitrogen and phosphorus per Session Law 2009-
4 486. The load reduction program shall identify specific load-reducing practices
5 implemented to date subsequent to the baseline period and for which the local
6 government is seeking credit. It shall estimate load reductions for these practices and
7 their anticipated duration using methods provided for in Sub-Item (5)(a).
- 8 (i) The ~~plan~~program shall include a proposed implementation schedule that includes annual
9 implementation expectations. The load reduction program shall identify the types of
10 activities the local government intends to implement and types of existing development
11 affected, relative proportions or a prioritization of practices, relative magnitude of
12 reductions it expects to achieve from each, and the relative costs and efficiencies of each
13 activity to the extent information is available. The program shall identify the duration of
14 anticipated loading reductions, and may seek activities that provide long-term reductions.
- 15 (j) The load reduction program shall identify anticipated funding mechanisms or sources and
16 discuss steps take or planned to secure such funding.
- 17 (k) The ~~plan~~program shall address the extent of load reduction opportunities intended from
18 the following types of lands:
- 19 (i) Lands owned or otherwise controlled by the local government;
 - 20 (ii) Each land use type of privately owned existing development as defined in Item
21 (10) of Rule 15A NCAC 02B .0276, including ~~redevelopment that does not~~
22 ~~result in net increase in built-upon area~~projected redevelopment, on which the
23 local government's load reduction need is based as described in this Item; and
 - 24 (iii) Lands other than those on which the local government's load reduction need is
25 based as described in this Item, including lands both within and outside its
26 jurisdiction and including through the use of interlocal agreements and private
27 third party sellers.
- 28 (l) The ~~plan~~program shall address the extent of load reduction proposed from, at a minimum,
29 the following stormwater and ecosystem restoration activities:
- 30 (i) Bioretention;
 - 31 (ii) Constructed wetland;
 - 32 (iii) Sand filter;
 - 33 (iv) Filter strip;
 - 34 (v) Grassed swale;
 - 35 (vi) Infiltration device;
 - 36 (vii) Extended dry detention;
 - 37 (viii) Rainwater harvesting system;

- 1 (ix) Treatment of redevelopment;
- 2 (x) Overtreatment of new development;
- 3 (xi) Removal of impervious surface;
- 4 (xii) Retrofitting treatment into existing stormwater ponds;
- 5 (xiii) Off-line regional treatment systems;
- 6 (xiv) Wetland or riparian buffer restoration; and
- 7 (xv) Reforestation with conservation easement or other protective covenant.
- 8 (m) A local government may propose in its load reduction program the use of the following
- 9 measures in addition to items listed in (l) and (n), or may propose other measures for
- 10 which it can provide accounting methods acceptable to the Division:
- 11 (i) Redirecting runoff away from impervious surfaces;
- 12 (ii) Soil amendments;
- 13 (iii) Stream restoration;
- 14 (iv) Improved street sweeping; and
- 15 (v) Source control, such as pet waste and fertilizer ordinances.
- 16 (n) The ~~plan~~program shall evaluate the ~~extent of~~ load reduction ~~proposed~~potential from the
- 17 following wastewater activities:
- 18 (i) Creation of surplus relative to an allocation established in Rule 15A NCAC 02B
- 19 .0279;
- 20 (ii) Expansion of surplus allocation through regionalization;
- 21 (iii) Connection of discharging sand filters and malfunctioning septic systems to
- 22 central sewer or replacement with permitted non-discharge alternatives;
- 23 (iv) Removal of illegal discharges; and
- 24 (v) Improvement of wastewater collection systems.
- 25 (o) The ~~plan~~program shall include explicit evaluation of load reductions
- 26 ~~proposed~~reduction potential relative to the following factors:
- 27 (i) Extent of physical opportunities for installation;
- 28 (ii) Landowner acceptance;
- 29 (iii) Incentive and education options for improving landowner acceptance;
- 30 (iv) Existing and potential funding sources and magnitudes;
- 31 (v) Practice cost-effectiveness (e.g., cost per pound of nutrient removed);
- 32 (vi) Increase in per capita cost of a local government's stormwater management
- 33 program to implement the program;
- 34 (vii) Implementation rate without the use of eminent domain; and
- 35 (viii) Need for and projected role of eminent domain.
- 36 (5) The Commission shall approve a Stage I load reduction ~~plan~~program if it is consistent with Items
- 37 (3) and (4) of this Rule. The Commission shall Approve a Stage II load reduction ~~plan~~program if

1 it is consistent with Items (3) and (4) of this Rule unless the Commission finds that the local
 2 governments can, through the implementation of reasonable and cost-effective measures not
 3 included in the proposed program, meet the Stage II nutrient load reductions required by this Rule
 4 by a date earlier than that proposed by the local government. If the Commission finds that there
 5 are additional or alternative reasonable and cost-effective measures, the Commission may require
 6 the local government to modify its proposed program to include such measures to achieve the
 7 required reductions by the earlier date. If the Commission requires such modifications, the local
 8 government shall submit a modified program within two months. The Division shall recommend
 9 that the Commission approve or disapprove the modified program within three months after
 10 receiving the modified program. In determining whether additional or alternative load reduction
 11 measures are reasonable and cost effective, the Commission shall consider factors including, but
 12 not limited to those identified in Sub-Item (4)(o) of this Rule. ~~and if it finds that the plan achieves~~
 13 ~~the maximum level of reductions that is technically and economically feasible within the proposed~~
 14 ~~timeframe of implementation based on plan elements identified elsewhere in this Item. Economic~~
 15 ~~feasibility is determined by considering environmental impacts, capital cost of compliance, annual~~
 16 ~~incremental compliance, per capita cost of local stormwater programs, cost effectiveness of~~
 17 ~~available measures, and impacts on local and regional commerce.~~—The Commission shall not
 18 require additional or alternative measures that would require a local government to:

- 19 (a) Install or require installation of a new stormwater collection system in an area of existing
 20 development unless the area is being redeveloped;
- 21 (b) Acquire developed private property; or
- 22 (c) Reduce or require the reduction of impervious surfaces within an area of existing
 23 development unless the area is being redeveloped.
- 24 (6) A municipality shall have the option of working with the county or counties in which it falls, or
 25 with another municipality or municipalities within the same subwatershed, to jointly meet the
 26 loading targets from all lands within their combined jurisdictions within a subwatershed. A local
 27 government may utilize private or third party sellers. All reductions involving trading with other
 28 parties shall meet the requirements of Rule 15A NCAC 02B .0282.
- 29 (7) RULE IMPLEMENTATION. This Rule shall be implemented as follows:
- 30 (a) Within 30 months after the effective date of this Rule, the Division shall submit a Stage I
 31 model local program to the Commission for approval that embodies the criteria described
 32 in Items (3)(a) and (4) of this Rule. The Division shall work in cooperation with subject
 33 local governments and other watershed interests in developing this model program, which
 34 shall include the following:
- 35 (i) Model local ordinances as applicable;
- 36 (ii) Methods to quantify load reduction requirements and resulting load reduction
 37 assignments for individual local governments;

- 1 (iii) Methods to account for discharging sand filters, malfunctioning septic systems,
2 and leaking collection systems; and
- 3 (iv) Methods to account for load reduction credits from various activities.
- 4 (b) Within six months after the Commission's approval of the Stage I model local program,
5 subject local governments shall submit load reduction programs that meet or exceed the
6 requirements of Items (3) and (4) of this Rule to the Division for review and preliminary
7 approval and shall begin implementation and tracking of measures to reduce nutrient
8 loads from existing developed lands within their jurisdictions.
- 9 (c) Within 20 months of the Commission's approval of the Stage I model local program, the
10 Division shall provide recommendations to the Commission on existing development
11 load reduction programs. The Commission shall either approve the programs or require
12 changes based on the standards set out in Item (4) of this Rule. Should the Commission
13 require changes, the applicable local government shall have two months to submit
14 revisions, and the Division shall provide follow-up recommendations to the Commission
15 within two months after receiving revisions.
- 16 (d) Within three months after the Commission's approval of a Stage I local existing
17 development load reduction program, the affected local government shall complete
18 adoption of and begin implementation of its existing development Stage I load reduction
19 program.
- 20 (e) Upon implementation of the programs required under Item (4) of this Rule, local
21 governments shall provide annual reports to the Division documenting their progress in
22 implementing those requirements within three months following each anniversary of
23 program implementation date until such time the Commission determines they are no
24 longer needed to ensure maintenance of reductions or that standards are protected.
25 Annual report shall include accounting of total annual expenditures, including local
26 government funds and any state and federal grants used toward load reductions achieved
27 from existing developed lands. Local governments shall indefinitely maintain and ensure
28 performance of implemented load-reducing measures.
- 29 (f) Ten years after the effective date of this Rule and every five years thereafter until either
30 accounting determines load reductions have been achieved, standards are met in the lake,
31 or the Commission takes other actions per Rule 15A NCAC 02B .0275, local
32 governments located in the upper Falls watershed as defined in Item (3) of Rule 15A
33 NCAC 02B .0275 shall submit and concurrently begin implementation of ~~begin to~~
34 ~~implement and shall submit~~ a Stage II² load reduction program or program revision to the
35 Division. Within nine months after submittal, the Division shall make recommendations
36 to the Commission on approval of these programs. The Commission shall either approve
37 the programs or require changes based on the standards set out in this Rule should the

1 Commission require changes, the applicable local governments shall submit revisions
 2 within two months, and the Division shall provide follow-up recommendations to the
 3 Commission within three months after receiving revisions. Upon program approval,
 4 local governments shall revise implementation as necessary based on the approved
 5 program.

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

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

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

20
 21 *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-*
 22 *215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L.*
 23 *2006-259;S.L. 2009-337;*
 24 *Temporary Adoption Eff. January 15, 2011;*
 25 *Eff. Upon Legislative Approval.*

1 15A NCAC 02B .0279 is adopted with changes as published in 24:24 NCR 2210-2215 as follows:

2
3 **15A NCAC 02B .0279 FALLS WATER SUPPLY NUTRIENT STRATEGY: WASTEWATER**
4 **DISCHARGE REQUIREMENTS**

5 The following is the NPDES wastewater discharge management strategy for the Falls of the Neuse Reservoir
6 watershed (the Falls watershed):

- 7 (1) Purpose. The purpose of this Rule is to establish minimum nutrient control requirements for point
8 source wastewater discharges in the Falls watershed in order to restore and maintain water quality
9 in the reservoir and protect its designated uses.
- 10 (2) Applicability. This Rule applies to all wastewater treatment facilities discharging in the Falls
11 watershed that receive nutrient-bearing wastewater and are subject to requirements for individual
12 NPDES permits.
- 13 (3) Definitions. For the purposes of this Rule, the following definitions apply:
- 14 (a) In regard to point source dischargers, treatment facilities, and wastewater flows and
15 discharges,
- 16 (i) "Existing" means that which was subject to an NPDES permit as of December
17 31, 2006;
- 18 (ii) "Expanding" means that which has increased or will increase beyond its
19 permitted flow as defined in this Rule; and
- 20 (iii) "New" means that which was not subject to an NPDES permit as of December
21 31, 2006.
- 22 (b) "Active" allocation means that portion of an allocation that has been applied toward and
23 is expressed as a nutrient limit in an individual NPDES permit. Allocation that is held but
24 not applied in this way is "reserve" allocation.
- 25 (c) "Current flow" means the actual discharge flow reported by a facility for the period from
26 July 2008 through June 2009.
- 27 (d) "Limit," except when specified as a concentration limit, means the mass quantity of
28 nitrogen or phosphorus that a discharger or group of dischargers is authorized through an
29 NPDES permit to release into surface waters of the Falls watershed.
- 30 (e) "MGD" means million gallons per day.
- 31 (f) "Permitted flow" means the maximum monthly average flow authorized in a facility's
32 NPDES permit as of December 31, 2006.
- 33 (g) "Reserve" allocation means allocation that is held by a permittee or other person but
34 which has not been applied toward and is not expressed as a nutrient limit in an
35 individual NPDES permit. Allocation that has been applied and expressed in this way is
36 "active" allocation.

(4) This Item establishes ~~initial intermediate~~ (Stage I) and ~~final~~ (Stage II) nutrient allocations for existing dischargers in the Upper Falls watershed.

(a) ~~The initial collective nitrogen and phosphorus allocations are as follows:~~

Implementation Stage and Discharger Subcategories	Mass Allocations (pounds/year)	
	Total Nitrogen	Total Phosphorus
<u>Final (Stage II)</u>		
Permitted flows \geq 0.1 MGD	95,858	5,228
Permitted flows $<$ 0.1 MGD	1,052	175
<u>Intermediate (Stage I)</u>		
Permitted flows \geq 0.1 MGD	128,686	14,008
Permitted flows $<$ 0.1 MGD	527	88

(a) Stage I nitrogen and phosphorus allocations for dischargers with permitted flows of 0.1 MGD or greater are as follows:

Facility Name	NPDES No.	Mass Allocations (pounds/year)	
		Total Nitrogen	Total Phosphorus
North Durham	NC0023841	97,665	10,631
SGWASA	NC0026824	22,420	2,486
Hillsborough	NC0026433	10,422	1,352

(b) ~~The Stage I allocations in Sub Item (a) of this Item shall be divided among the existing dischargers in each subcategory in proportion to 110% of the dischargers' current flows as defined in this Rule; the Stage II allocations shall be divided in the same manner but in proportion to the dischargers' permitted flows; and the resulting nutrient allocations shall be assigned to each individual discharger.~~

(b) Stage I allocations for dischargers with permitted flows less than 0.1 MGD are equal to the Stage II allocations specified in Sub-Items (c) and (d) of this Item.

(c) Stage II nitrogen and phosphorus allocations are as follows:

Discharger Subcategories	Mass Allocations (pounds/year)	
	Total Nitrogen	Total Phosphorus
Permitted flows \geq 0.1 MGD	97,617	5,438
Permitted flows $<$ 0.1 MGD	1,052	175

(d) The Stage II allocations in Sub-Item (c) of this Item shall be divided among the existing dischargers in each subcategory in proportion to the dischargers' permitted flows as defined in this Rule, and the resulting nutrient allocations shall be assigned to each individual discharger.

(5) This Item describes allowable changes in nutrient allocations.

(a) The aggregate and individual nutrient allocations available to point source dischargers in the Falls watershed are subject to change:

- 1 (i) Whenever the Commission, through rulemaking, revises the nutrient reduction
2 targets in or pursuant to 15A NCAC 02B .0275 in order to ensure the protection
3 of water quality in the reservoir and its tributaries or to conform with applicable
4 state or federal requirements;
- 5 (ii) Whenever one or more point source dischargers acquires any portion of the
6 nonpoint load allocations under the provisions in this Rule and 15A NCAC 02B
7 .0282, Options for Offsetting Nutrient Loads; or
- 8 (iii) As the result of allocation transfers conducted between point sources or between
9 point and nonpoint sources and in accordance with this Rule, provided that
10 nutrient allocation can be transferred and applied only within the portion of the
11 Falls watershed to which it was originally assigned (Upper or Lower).
- 12 (b) In the event that the Commission changes any nutrient reduction target specified in 15A
13 NCAC 02B .0275 or in Item (4) of this Rule, the Commission shall also re-evaluate the
14 apportionment among the dischargers and shall revise the individual allocations as
15 necessary.
- 16 (6) This Item establishes nutrient discharge limitations for existing facilities discharging in the Upper
17 Falls watershed.
- 18 (a) Beginning with calendar year 2016, any existing discharger with a permitted flow of 0.1
19 MGD or greater shall limit its total nitrogen and phosphorus discharges to its active,
20 individual Stage I allocations as defined or modified pursuant to this Rule.
- 21 (b) Beginning with calendar year 2036, except as provided in Sub-item (d) of this Item, each
22 existing discharger with a permitted flow greater than or equal to 0.1 MGD shall limit its
23 total nitrogen and phosphorus discharges to its active, individual Stage II allocations as
24 defined or modified pursuant to this Rule.
- 25 (c) Not later than 60 days after the effective date of this Rule, the Director shall notify
26 existing permittees of the individual Stage I and Stage II nutrient allocations initially
27 assigned to them pursuant to this Rule.
- 28 (d) Not later than sixteen years after the effective date of this Rule, each existing discharger
29 with a permitted flow greater than or equal to 0.1 MGD shall submit to the Division a
30 plan for meeting its Stage II mass limitations. The plan shall describe the discharger's
31 strategy for complying with the limitations and shall include a schedule for the design
32 and construction of facility improvements and for the development and implementation
33 of related programs necessary to the strategy. If a discharger determines that it cannot
34 meet its limitations by calendar year 2036, the discharger may include its findings in the
35 plan and request an extension of its compliance dates for the nitrogen and phosphorus
36 limitations. This alternate plan shall document the compliance strategies considered and
37 the reasons each was judged infeasible; identify the minimum loadings that are

1 technically and economically feasible by 2036; and propose intermediate limits for the
 2 period beginning with 2036 and extending until the Stage II limitations can be met.
 3 Within 180 days of Receipt, the Division shall approve the plan as submitted, which
 4 could include intermediate limits, or inform the discharger of any changes or additional
 5 information needed for approval. The Division shall incorporate the approved nitrogen
 6 and phosphorus mass limitations and compliance dates into the discharger's NPDES
 7 permit upon the next renewal or other major permit action following plan approval. If the
 8 Division extends the dates by which a discharger must meet Stage II limitations, the
 9 discharger shall update and submit its plan for Division approval every five years after
 10 the original submittal, and the Division shall take necessary and appropriate action as
 11 with the original plan, until the Stage II limitations are satisfied.

12 (e) It is the intent of this Item that all dischargers shall make continued progress toward
 13 complying with Stage II mass limitations. The Division shall not approve intermediate
 14 limitations that exceed either the applicable Stage I limitations or intermediate limitations
 15 previously approved pursuant to this Item.

16 (7) This Item establishes nutrient discharge limitations for existing facilities discharging in the Lower
 17 Falls watershed.

18 (a) Beginning with calendar year 2016, any existing discharger with a permitted flow of 0.1
 19 MGD or greater shall limit its total nitrogen and phosphorus discharges as specified in
 20 this Item.

21 (b) Concentration limits. The nitrogen and phosphorus discharge limits for existing
 22 dischargers shall be as follows:

23 Discharge Limits (milligrams/liter)

24 Limit Type	Total Nitrogen	Total Phosphorus
25 Monthly Average	8.0	1.0
26 Annual Average	5.5	0.5

27
 28 (c) Mass Limits.

29 (i) In addition to the concentration limits specified in this Item, the collective
 30 annual mass discharge of Total Phosphorus shall not exceed 911 pounds in any
 31 calendar year.

32 (ii) Any discharger may request a mass discharge limit in lieu of the concentration
 33 limit for nitrogen or phosphorus or both, in which case the Director shall set a
 34 limit equivalent to the annual average concentration limit at the facility's
 35 permitted flow. The resulting mass limit shall become effective with the ensuing
 36 calendar year or with calendar year 2016, whichever is later.

37 (8) This Item identifies nutrient control requirements specific to new discharges.

- 1 (a) Any person proposing a new wastewater discharge in the Upper Falls watershed shall
2 meet the following requirements prior to applying for an NPDES permit:
- 3 (i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H
4 .0105(c)(2);
- 5 (ii) If the results of the evaluation support a new discharge, acquire sufficient
6 nitrogen and phosphorus allocations for the discharge. The proponent may
7 obtain allocation for the proposed discharge from existing dischargers pursuant
8 to the applicable requirements of Item (10) of this Rule or obtain allocation from
9 other sources to offset the increased nutrient loads resulting from the proposed
10 discharge. The proponent may fund offset measures by making payment to the
11 NC Ecosystem Enhancement Program contingent upon acceptance of payments
12 by that Program or to another seller of offset credits approved by the Division or
13 may implement other offset measures contingent upon approval by the Division,
14 either of which shall meet the requirements of Rule 15A NCAC 02B .0282. The
15 amount of allocation or offsets obtained shall be sufficient for the duration of the
16 discharge or for a period of 30 years, whichever is shorter. Payment for each
17 allocation or offset shall be made prior to the ensuing permit issuance;
- 18 (iii) Determine whether the proposed discharge of nutrients will cause local water
19 quality impacts; and
- 20 (iv) Provide documentation with its NPDES permit application demonstrating that
21 the requirements of Sub-Items (i) through (iii) of this Sub-Item have been met.
- 22 (b) The nutrient discharge allocations and offsets for a new facility in the Upper Falls
23 watershed shall not exceed the mass loads equivalent to a concentration of 3.0 milligrams
24 per liter nitrogen or 0.1 milligrams per liter phosphorus at the permitted flow in the
25 discharger's NPDES permit.
- 26 (c) Upon the effective date of its NPDES permit, a new discharger shall be subject to
27 nitrogen and phosphorus limits not to exceed its active individual discharge allocations in
28 any given calendar year.
- 29 (d) The Director shall not issue an NPDES permit for any new wastewater facility that would
30 discharge in the Lower Falls watershed and to which this Rule would apply.
- 31 (9) This Item identifies nutrient control requirements specific to expanding discharges.
- 32 (a) Any person proposing to expand an existing wastewater discharge in the Upper Falls
33 watershed beyond its permitted flow as defined in this Rule shall meet the following
34 requirements prior to applying for an NPDES permit:
- 35 (i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H
36 .0105(c)(2);

- 1 (ii) If the results of the evaluation support an expanded discharge, acquire sufficient
2 nitrogen and phosphorus allocations for the discharge. The proponent may
3 obtain allocation for the proposed discharge from existing dischargers pursuant
4 to the applicable requirements of Item (10) of this Rule or obtain allocation from
5 other sources to offset the increased nutrient loads resulting from the proposed
6 discharge. The proponent may fund offset measures by making payment to the
7 NC Ecosystem Enhancement Program contingent upon acceptance of payments
8 by that Program or to another seller of offset credits approved by the Division
9 or may implement other offset measures contingent upon approval by the
10 Division, either of which shall meet the requirements of Rule 15A NCAC 02B
11 .0282. The amount of allocation or offsets obtained shall be sufficient for the
12 duration of the discharge or for a period of 30 years, whichever is shorter.
13 Payment for each allocation or offset shall be made prior to the ensuing permit
14 issuance;
- 15 (iii) Determine whether the proposed discharge of nutrients will cause local water
16 quality impact; and
- 17 (iv) Provide documentation with its NPDES permit application demonstrating that
18 the requirements of Sub-Items (i) through (iii) of this Sub-Item have been met.
- 19 (b) The nutrient discharge limits for an expanding facility shall not exceed the mass value
20 equivalent to a concentration of 3.0 milligrams per liter nitrogen or 0.1 milligrams per
21 liter phosphorus at the expanded flow limit in the discharger's NPDES permit; except that
22 this provision shall not result in an active allocation or limit that is less than originally
23 assigned to the discharger under this Rule.
- 24 (c) Upon expansion or upon notification by the Director that it is necessary to protect water
25 quality, any discharger with a permitted flow of less than 0.1 MGD, as defined under this
26 Rule, shall become subject to total nitrogen and total phosphorus permit limits not to
27 exceed its active individual discharge allocations.
- 28 (d) The Director shall not issue an NPDES permit for the expansion of any wastewater
29 discharge in the Lower Falls watershed to which this Rule applies.
- 30 (10) This Item describes additional requirements regarding nutrient discharge limits for wastewater
31 facilities:
- 32 (a) Annual mass nutrient limits shall be established as calendar-year limits.
- 33 (b) Any discharger holding nutrient allocations pursuant to this Rule may by mutual
34 agreement transfer all or part of its allocations to any new, existing, or expanding
35 dischargers or to other person(s) in the Falls watershed, subject to the provisions of this
36 Rule and the Falls nutrient strategy, except that allocation shall not be transferred
37 between the Upper and Lower Falls watersheds.

- 1 (c) For NPDES compliance purposes, the enforceable nutrient limits for an individual facility
2 or for a compliance association described in Item (11) of this Rule shall be the effective
3 limits in the governing permit, regardless of the allocation held by the discharger or
4 association.
- 5 (d) The Director may establish more stringent nitrogen or phosphorus discharge limits for
6 any discharger upon finding that such limits are necessary to prevent the discharge from
7 causing adverse water quality impacts on surface waters tributary to Falls Reservoir. The
8 Director shall establish such limits through modification of the discharger's NPDES
9 permit in accordance with applicable rules and regulations. When the Director does so,
10 the discharger retains its nutrient allocations, and the non-active portion of the
11 discharger's allocation becomes reserve allocation. The allocation remains in reserve until
12 the Director determines that less stringent limits are allowable or until the allocation is
13 applied to another discharge not subject to such water quality-based limits.
- 14 (e) In order for any transfer of allocation to become effective as a discharge limit in an
15 individual NPDES permit, the discharger must request and obtain modification of the
16 permit. Such request shall:
- 17 (i) Describe the purpose and nature of the modification;
- 18 (ii) Describe the nature of the transfer agreement, the amount of allocation
19 transferred, and the dischargers or persons involved;
- 20 (iii) Provide copies of the transaction agreements with original signatures consistent
21 with NPDES signatory requirements; and
- 22 (iv) Demonstrate to the Director's satisfaction that the increased nutrient discharge
23 will not violate water quality standards in localized areas.
- 24 (f) Changes in a discharger's nutrient limits shall become effective upon modification of its
25 individual permit but no sooner than January 1 of the year following modification. If the
26 modified permit is issued after January 1, the Director may make the limit effective on
27 that January 1 provided that the discharger made acceptable application in a timely
28 manner.
- 29 (g) Regional Facilities. In the event that an existing discharger or group of dischargers
30 accepts wastewater from another NPDES-permitted treatment facility and that acceptance
31 results in the elimination of the discharge from the other treatment facility, the eliminated
32 facility's nutrient allocations shall be transferred and added to the accepting discharger's
33 allocations, except that allocation shall not be transferred between the Upper and Lower
34 Falls watersheds.
- 35 (11) This Item describes the option for dischargers to join a group compliance association to
36 collectively meet nutrient control requirements.

- 1 (a) Any or all facilities within the Upper or the Lower Falls watersheds may form a group
2 compliance association to meet nutrient limits collectively within their respective portion
3 of the Falls watershed. More than one group compliance association may be established
4 in either portion of the watershed. No facility may be a co-permittee member of more
5 than one association for any given calendar year.
- 6 (b) Any such association must apply for and shall be subject to an NPDES permit that
7 establishes the effective nutrient limits for the association and for its members.
- 8 (c) No later than 180 days prior to the proposed date of a new association's operation or
9 expiration of an existing association's NPDES permit, the association and its members
10 shall submit an application for an NPDES permit for the discharge of nutrients to surface
11 waters of the Falls watershed. The association's NPDES permit shall be issued to the
12 association and its members. It shall specify the nutrient limits for the association and for
13 each of its co-permittee members. Association members shall be deemed in compliance
14 with the permit limits for nitrogen and phosphorus contained in their individually issued
15 NPDES permits so long as they remain members in an association.
- 16 (d) An association's nitrogen and phosphorus limits shall be the sum of its members'
17 individual active allocations for each nutrient plus any other active allocation obtained by
18 the association or its members.
- 19 (e) The individual limits for each member in the association permit shall initially be
20 equivalent to the discharge limits in effect in the member's NPDES permit. Thereafter,
21 changes in individual allocations or limits shall be incorporated into the members'
22 individual permits before they are included in the association permit.
- 23 (f) An association and its members may reapportion the individual allocations of its
24 members on an annual basis. Changes in individual allocations or limits must be
25 incorporated into the members' individual permits before they are included in the
26 association permit.
- 27 (g) Changes in an association's nutrient limits shall become effective no sooner than January
28 1 of the year following permit modification. If the modified permit is issued after January
29 1, the Director may make the limit effective on that January 1 provided that the
30 association made acceptable application in a timely manner.
- 31 (h) Beginning with the first full calendar year that the nitrogen or phosphorus limits are
32 effective, an association that does not meet its permit limit for nitrogen or phosphorus for
33 a calendar year shall, no later than May 1 of the year following the exceedance, make an
34 offset payment to the NC Ecosystem Enhancement Program contingent upon acceptance
35 of payments by that Program or by implementing other load offsetting measures
36 contingent upon approval by the Division, either of which shall meet the requirements of
37 Rule 15A NCAC 02B .0282.

- 1 (i) Association members shall be deemed in compliance with their individual limits in the
2 association NPDES permit for any calendar year in which the association is in
3 compliance with its group limit for that nutrient. If the association fails to meet its limit,
4 the association and the members that have failed to meet their individual nutrient limits in
5 the association NPDES permit shall be deemed out of compliance with the association
6 NPDES permit.
7

8 *History Note: Authority G.S. 143-214.1; 143-214.5; 143-215; 143-215.1; 143-215.3(a)(1); 143-215B; 143B-*
9 *282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259;*
10 *Temporary Adoption Eff. January 15, 2011;*
11 *Eff. Upon Legislative Approval.*

1 15A NCAC 02B .0280 is adopted with changes as published in 24:24 NCR 2215-2221 as follows:

2
3 **15A NCAC 02B .0280 FALLS RESERVOIR WATER SUPPLY NUTRIENT STRATEGY:**
4 **AGRICULTURE**

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

- 8 (1) **PURPOSE.** The purposes of this Rule are to achieve and maintain the percentage reduction
9 objectives defined in 15A NCAC 02B .0275 for the collective agricultural loading of nitrogen and
10 phosphorus from their respective 2006 baseline levels, to the extent that best available accounting
11 practices will allow, in two stages. Stage I shall be 10 years and Stage II shall be 15 years, as set
12 out in Item (5) of this Rule. Additionally this Rule will protect the water supply uses of the Falls
13 Reservoir.
- 14 (2) **PROCESS.** This Rule requires accounting for agricultural land management practices at the
15 county level in the Falls watershed, and implementation of practices by farmers to collectively
16 achieve the nutrient reduction objectives on a watershed basis. Producers may be eligible to
17 obtain cost share and technical assistance from the NC Agriculture Cost Share Program and
18 similar federal programs to contribute to their counties' nutrient reductions. A Watershed
19 Oversight Committee and Local Advisory Committees will develop strategies, coordinate
20 activities, and account for progress.
- 21 (3) **LIMITATION.** This Rule may not fully address significant agricultural nutrient sources in that it
22 does not directly address atmospheric sources of nitrogen to the Falls watershed from agricultural
23 operations located both within and outside of the Falls watershed. As better information becomes
24 available from ongoing research on atmospheric nitrogen loading to the Falls watershed from
25 these sources, and on measures to control this loading, the Commission may undertake separate
26 rule-making to require such measures it deems necessary from these sources to support the
27 objectives of the Falls Nutrient Strategy.
- 28 (4) **APPLICABILITY.** This Rule shall apply to all persons engaging in agricultural operations in the
29 Falls watershed, including those related to crops, horticulture, livestock, and poultry. This Rule
30 applies to livestock and poultry operations above the size thresholds in this Item in addition to
31 requirements for animal operations set forth in general permits issued pursuant to G.S. 143-
32 215.10C. Nothing in this Rule shall be deemed to allow the violation of any assigned surface
33 water, groundwater, or air quality standard by any agricultural operation, including any livestock
34 or poultry operation below the size thresholds in this Item. This Rule shall not apply to dedicated
35 land application sites permitted under 15A NCAC 02T .1100. This Rule does not require specific
36 actions by any individual person or operation if agriculture in the Falls watershed can collectively
37 achieve its Stage I nutrient reduction objectives, in the manner described in Item (5) of this Rule,

1 within ten years of the effective date of this Rule. If the Stage I nutrient reduction objectives are
 2 not met within ten years of the effective date of the rule, Stage II of implementation shall require
 3 specific actions by individuals and operations. For the purposes of this Rule, agricultural
 4 operations are activities that relate to any of the following pursuits:

- 5 (a) The commercial production of crops or horticultural products other than trees. As used in
 6 this Rule, commercial shall mean activities conducted primarily for financial profit.
- 7 (b) Research activities in support of such commercial production.
- 8 (c) The production or management of any of the following number of livestock or poultry at
 9 any time, excluding nursing young:
 - 10 (i) Five or more horses;
 - 11 (ii) 20 or more cattle;
 - 12 (iii) 20 or more swine not kept in a feedlot, or 150 or more swine kept in a feedlot;
 - 13 (iv) 120 or more sheep;
 - 14 (v) 130 or more goats;
 - 15 (vi) 650 or more turkeys;
 - 16 (vii) 3,500 or more chickens; or
 - 17 (viii) Any single species of any other livestock or poultry, or any combination of
 18 species of livestock or poultry that exceeds 20,000 pounds of live weight at any time.

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

- 24 (a) In Stage I, agriculture shall achieve a collective 20 percent reduction in nitrogen loading
 25 and a 40 percent reduction in phosphorus loading relative to the 2006 baseline within 10
 26 years after the effective date of this Rule.
- 27 (b) In Stage II, beginning 10 years after the effective date of this Rule, agriculture shall
 28 achieve a collective 40 percent reduction in nitrogen loading and a 77 percent reduction
 29 in phosphorus loading relative to the 2006 baseline within 25 years after the effective
 30 date of this Rule.
- 31 (c) Within two years after the effective date of this Rule, the Watershed Oversight
 32 Committee shall provide the Commission with an initial assessment of the extent to
 33 which agricultural operations in the Falls watershed have achieved the Stage I nitrogen
 34 and phosphorus reduction objectives identified in Item (1) of this Rule through activities
 35 conducted since the baseline period. The Watershed Oversight Committee shall use the
 36 accounting process described in Items (7) and (8) of this Rule to make its assessment.

~~(d)~~ Stage II shall require a collective 40 percent reduction in nitrogen loading and 77 percent reduction in phosphorus loading relative to the 2006 baseline to be achieved within 25 years after the effective date of this Rule.

(ed) If annual reporting following the tenth year of implementation indicates that agriculture has not collectively achieved its Stage I nitrogen and phosphorus reduction objectives identified in this Item ~~within ten years of the effective date of this Rule~~, Stage II ~~of implementation~~ shall include additional specific implementation requirements for individual operators ~~to buffer all cropland and pasture and exclude all livestock from surface waters~~. 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 most recent 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 from the Watershed Oversight Committee based on ~~its~~ the Committee's assessment of the practicability of agricultural operations meeting the ~~watershed~~ Stage I objectives. Should the Commission ~~require~~ 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.

(~~fe~~) Should a committee called for under Item (5) of this Rule not form nor follow through on its responsibilities such that a local strategy is not implemented in keeping with Item (8) 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) With the exception of Sub-Item (d) of this Item, persons are not required to implement any specific BMPs in Stage I but may elect to contribute to the collective local nutrient strategy by implementing any BMPs they choose that are recognized by the Watershed Oversight Committee as nitrogen-reducing or phosphorus-reducing BMPs;

1 (c) The Division shall require that residuals application, animal waste application, and
2 surface irrigation pursuant to permits issued under 15A NCAC 02T .1100, 15A NCAC
3 02T .1300, and 15A NCAC 0 2T.0500 respectively, to lands within the Falls watershed
4 be done in a manner that minimizes the potential for nitrogen and phosphorus loading to
5 surface waters by implementing the following measures: ~~Persons subject to these~~
6 ~~permitting requirements shall meet Realistic Expectation Yield based nitrogen~~
7 ~~application rates and shall apply phosphorus in compliance with guidance established in~~
8 ~~the most recent version of North Carolina Agricultural research Service's Technical~~
9 ~~Bulletin 323, "North Carolina Phosphorus Loss Assessment: I Model Description and II.~~
10 ~~Scientific Basis and Supporting literature" developed by the Department of Soil Science~~
11 ~~and Biological and Agricultural Engineering at North Carolina State University. The~~
12 ~~Division shall modify all existing permits for affected lands to include these requirements~~
13 ~~upon their next renewal after effective date, and shall include these requirements in all~~
14 ~~new permits issued after effective date. Permittees shall be required to comply with this~~
15 ~~condition upon permit issuance or renewal as applicable; and~~

16 (i) Animal waste application operators subject to these permitting requirements in
17 Sub-Item (6)(c) shall meet Realistic Yield Expectation Yield-based nitrogen
18 application rates and shall apply phosphorus in compliance with guidance
19 established in the most recent version of North Carolina Agricultural research
20 Service's Technical Bulletin 323, "North Carolina Phosphorus Loss
21 Assessment: I Model Description and II. Scientific Basis and Supporting
22 Literature" developed by the Department of Soil Science and Biological and
23 Agricultural Engineering at North Carolina State University. The Division shall
24 modify all existing permits for affected lands to include these requirements upon
25 their next renewal after effective date, and shall include these requirements in all
26 new permits issued after effective date. Permittees shall be required to comply
27 with this condition upon permit issuance or renewal as applicable; and

28 (ii) Residual application and surface irrigation operators subject to the permitting
29 requirements in Sub-Item (6)(c) shall meet Realistic Yield Expectation based
30 nitrogen application rates and shall conduct and provide to the Division annual
31 assessments of their soil test phosphorus index results and phosphorus loading
32 rates. At such time as data quantifying the fate and transport of chemically
33 bound phosphorus are made available, the Division may make recommendations
34 to the Commission to consider whether revisions to the requirements of this
35 Rule are needed and may initiate rulemaking or any other action allowed by law.

1 (d) Should a local strategy not achieve its Stage I objectives within ten years of the effective
2 date of this Rule, operations within that local area shall face specific implementation
3 requirements, as described under Sub-Item (5)(~~g~~) of this Rule.

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

6 (a) MEMBERSHIP. The Director shall be responsible for forming a Watershed Oversight
7 Committee within two months of the effective date of this Rule. Until such time as the
8 Commission determines that long-term maintenance of the nutrient loads is assured, the
9 Director shall either reappoint members or replace members at least every six years. The
10 Director shall solicit nominations for membership on this Committee to represent each of
11 the following interests, and shall appoint one nominee to represent each interest except
12 where a greater number is noted. The Director of the Division of Water Quality may
13 appoint a replacement at any time for an interest in Sub-Items (7)(a)(vi) through (7)(a)(x)
14 of this Rule upon request of representatives of that interest or by the request of the
15 Commissioner of Agriculture:

- 16 (i) Division of Soil and Water Conservation;
- 17 (ii) United States Department of Agriculture-Natural Resources Conservation
18 Service (shall serve in an "ex-officio" non-voting capacity and shall function as
19 a technical program advisor to the Committee);
- 20 (iii) North Carolina Department of Agriculture and Consumer Services;
- 21 (iv) North Carolina Cooperative Extension Service;
- 22 (v) Division of Water Quality;
- 23 (vi) Three environmental interests, at least two of which are residents of the Falls
24 watershed;
- 25 (vii) General farming interests;
- 26 (viii) Pasture-based livestock interests;
- 27 (ix) Equine livestock interests;
- 28 (x) Cropland farming interests; and
- 29 (xi) The scientific community with experience related to water quality problems in
30 the Falls watershed.

31 (b) ROLE. The Watershed Oversight Committee shall:

- 32 (i) Develop tracking and accounting methods for nitrogen and phosphorus loading.
33 Submit methods to the Water Quality Committee of the Commission for
34 approval based on the standards set out in Sub-Item (7)(c) of this Rule within 15
35 months after the effective date of this Rule;

- 1 (ii) Identify and implement future refinements to the accounting methods as needed
2 to reflect advances in scientific understanding, including establishment or
3 refinement of nutrient reduction efficiencies for BMPs;
- 4 (iii) Within two years after the effective date of this Rule, collect data needed to
5 conduct initial nutrient loading accounting for the baseline period and the most
6 current year feasible, perform this accounting, and determine the extent to which
7 agricultural operations have achieved the Stage I nitrogen loading objective and
8 phosphorus loading trend indicators for the watershed. Present findings to the
9 Water Quality Committee of the Commission;
- 10 (iv) Review, approve, and summarize local nutrient strategies if required pursuant to
11 Sub-Item (5)(d) of this Rule and according to the timeframe identified in Sub-
12 Item (8)(c)(ii) of this Rule. Provide these strategies to the Division;
- 13 (v) Establish requirements for, review, approve and summarize local nitrogen and
14 phosphorus loading annual reports as described under Sub-Item (8)(e) of this
15 Rule, and present the report to the Division annually, until such time as the
16 Commission determines that annual reports are no longer needed to fulfill the
17 purposes of this Rule. Present a report three years after the effective date to the
18 Commission. Should that report find that agriculture in the watershed has not
19 met its collective nitrogen or phosphorus objective, include an assessment in that
20 report of the practicability of producers achieving the Stage I objective within
21 ten years after the effective date, and recommendations to the Commission as
22 deemed appropriate;
- 23 (vi) Obtain nutrient reduction efficiencies for BMPs from the scientific community
24 associated with design criteria identified in rules adopted by the Soil and Water
25 Conservation Commission, including 15A NCAC 06E .0104 and 15A NCAC
26 06F .0104; and
- 27 (vii) Investigate and, if feasible, develop an accounting method to equate
28 implementation of specific ~~nitrogen~~nutrient-reducing practices on cropland or
29 pastureland to reductions in ~~nitrogen~~nutrient loading delivered to ~~streams~~
30 ~~streams~~; ~~Quantify~~ quantify the nitrogen and phosphorus credits ~~generate~~
31 ~~generated~~ by such practices for the purpose of selling or buying ~~credits~~ credits;
32 ~~Establish~~ establish criteria and a process as needed for the exchange of ~~nitrogen~~
33 ~~nutrient~~ credits between parties ~~meeting the criteria of Sub section (4)(a)(b) or~~
34 ~~(c) of subject to this Rule with each other or with~~ parties subject to other nutrient
35 strategy rules in the Falls lake watershed pursuant to the requirements of 15A
36 NCAC 02B ~~.0282~~ .0282; ~~Approve~~ obtain approval from the Division for this
37 trading program pursuant to the requirements of Rule .0282; approve eligible

~~trades, trades;~~ and ensure that ~~such practices~~ credits traded for purposes of meeting this Rule are accounted for and tracked separately from those contributing to the objectives of ~~this Rule.~~ 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 accounting methods that meet the following requirements:
- (i) The nitrogen method shall estimate baseline and annual total nitrogen loading 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 reductions from actual BMP implementation and of evaluating progress toward and maintenance of the nutrient objectives from changes in BMP implementation, fertilization, 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 as identified by the phosphorus technical advisory committee established under 15A NCAC 02B .0256(f)(2)(C). 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 ~~by quantifying~~ changes in the extent of livestock-related nutrient controlling BMPs. Progress may be judged based on percent change in the extent of

1 implementation relative to percentage objectives identified in ~~the objectives~~
 2 ~~rule-Item (5) of this Rule.~~

3 (8) LOCAL ADVISORY COMMITTEES. Local Advisory Committees required by Sub-Item (5)(a)
 4 of this Rule shall be formed for each county within the watershed within one year after the
 5 effective date of this Rule, and shall have the following membership, roles, and responsibilities:

6 (a) MEMBERSHIP. A Local Advisory Committee shall be appointed as provided for in this
 7 Item. It shall terminate upon a finding by the Commission that it is no longer needed to
 8 fulfill the purposes of this Rule. Each Local Advisory Committee shall consist of:

- 9 (i) One representative of the county Soil and Water Conservation District;
- 10 (ii) One representative of the county office of the United States Department of
 11 Agriculture Natural Resources Conservation Service;
- 12 (iii) One representative of the North Carolina Department of Agriculture and
 13 Consumer Services ~~whose regional assignment includes the county;~~
- 14 (iv) One representative of the county office of the North Carolina Cooperative
 15 Extension Service;
- 16 (v) One representative of the North Carolina Division of Soil and Water
 17 Conservation whose regional assignment includes the county;
- 18 (vi) At least two farmers who reside in the county; and
- 19 (vii) One representative of equine livestock interests.

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

30 (c) ROLE. The Local Advisory Committees shall:

- 31 (i) Conduct a registration process for persons subject to this Rule. This registration
 32 process shall be completed within 12 months after the effective date of this Rule.
 33 The registration process shall request at a minimum the type and acreage of
 34 agricultural operations. It shall provide persons with information on
 35 requirements and options under this Rule, and on available technical assistance
 36 and cost share options;

- 1 (ii) Develop local nutrient control strategies for agricultural operations, pursuant to
2 Sub-Item (8)(d) of this Rule, to meet the nitrogen and phosphorus objectives of
3 this Rule. Strategies shall be submitted to the Watershed Oversight Committee
4 no later than 18 months after the effective date of this Rule;
- 5 (iii) Ensure that any changes to the design of the local strategy will continue to meet
6 the nutrient objectives of this Rule; and
- 7 (iv) Submit reports to the Watershed Oversight Committee, pursuant to Sub-Item
8 (8)(e) of this Rule, annually beginning two years after the effective date of this
9 Rule until such time as the Commission determines that annual reports are no
10 longer needed to fulfill the purposes of this Rule.
- 11 (d) LOCAL NUTRIENT CONTROL STRATEGIES. Local Advisory Committees shall
12 develop nutrient control strategies that meet the following requirements. If a Local
13 Advisory Committee fails to submit a nutrient control strategy required in Sub-Item
14 (8)(c)(ii) of this Rule, the Commission may develop one based on the accounting
15 methods that it approves pursuant to Sub-Item (7)(b)(i) of this Rule. Local strategies
16 shall meet the following requirements:
- 17 (i) Local nutrient control strategies shall be designed to achieve the required
18 nitrogen loading reduction objectives and qualitative trends in indicators of
19 agricultural phosphorus loading within 10 years after the effective date of this
20 Rule, and to maintain those reductions in perpetuity or until such time as this
21 Rule is revised to modify this requirement; and
- 22 (ii) Local nutrient control strategies shall specify the numbers, acres, and types of all
23 agricultural operations within their areas, numbers of BMPs that will be
24 implemented by enrolled operations and acres to be affected by those BMPs,
25 estimated nitrogen and phosphorus loading reductions, schedule for BMP
26 implementation, and operation and maintenance requirements.
- 27 (e) ANNUAL REPORTS. The Local Advisory Committees shall be responsible for
28 submitting annual reports for their counties to the Watershed Oversight Committee until
29 such time as the Commission determines that annual reports are no longer needed to
30 fulfill the purposes of this Rule. The Watershed Oversight Committee shall determine
31 reporting requirements to meet these objectives. Those requirements may include
32 information on BMPs implemented by individual farms, proper BMP operation and
33 maintenance, BMPs discontinued, changes in agricultural land use or activity, and
34 resultant net nitrogen loading and phosphorus trend indicator changes. The annual
35 reports in 2016 and 2026 shall address agriculture's success in complying with the load
36 reduction requirements described in Items (5)(b) and (5)(f) of this Rule and shall include
37 adjustments to address deficiencies to achieve compliance.

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

5
6 *History Note: Authority G. S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-*
7 *215.3(a)(1); 143-215.6A; 143-215.6B; 143 215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L.*
8 *2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486.*

9 *Temporary Adoption Eff. January 15, 2011;*

10 *Eff. Upon Legislative Approval.*

1 15A NCAC 02B .0281 is adopted with changes as published in 24:24 NCR 2221-2232 as follows:

2
3 **15A NCAC 02B .0281 FALLS WATER SUPPLY NUTRIENT STRATEGY: STORMWATER**
4 **REQUIREMENTS FOR STATE AND FEDERAL ENTITIES**

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

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

8 (a) To achieve and maintain, on new non-road development lands, the nonpoint source
9 nitrogen and phosphorus percentage reduction objectives established for Falls Reservoir
10 in 15A NCAC 02B .0275 relative to the baseline period defined in that Rule, to provide
11 the highest practicable level of treatment on new road development, and to achieve and
12 maintain the percentage objectives on existing developed lands by reducing loading from
13 state-maintained roadways and facilities, and from lands controlled by other state and
14 federal entities in the Falls watershed;

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

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

20 (2) APPLICABILITY. This Rule shall apply to all existing and new development, both as defined in
21 15A NCAC 02B .0276, that lies within or partially within the Falls watershed under the control of
22 the NC Department of Transportation (NCDOT), including roadways and facilities, and to all
23 lands controlled by other state and federal entities in the Falls watershed.

24 (3) NON-NCDOT REQUIREMENTS. With the exception of the NCDOT, all state and federal
25 entities that control lands within the Falls watershed shall meet the following requirements:

26 ~~**(Land Disturbance Threshold Option: A)**~~

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

31 ~~**(Land Disturbance Threshold Option: B)**~~

32 ~~(a) For any new development proposed within their jurisdictions that would disturb 5,000one~~
33 ~~quarter acre square feet or more, non-NCDOT state and federal entities shall develop~~
34 ~~stormwater management plans for submission to and approval by the Division. These~~
35 ~~stormwater plans shall not be approved unless the following criteria are met:~~

36 ~~(i) Nitrogen and phosphorus loads contributed by the proposed new development activity~~
37 ~~shall not exceed the unit area mass loading rates as follows for nitrogen and phosphorus,~~

1 ~~respectively, expressed in units of pounds/acre/year: 2.2 and 0.33. The developer shall~~
 2 ~~determine the need for engineered stormwater controls to meet these loading rate targets~~
 3 ~~by using the loading calculation method called for in Sub-Item (4)(a) of 15A NCAC 02B~~
 4 ~~.0277 or other equivalent method acceptable to the Division.~~

5 (b) The non-NCDOT state or federal entity shall include measures to ensure maintenance of best
 6 management practices (BMPs) implemented as a result of the provisions in Sub-Item (3)(a) of
 7 this Rule for the life of the development;

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

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

12 (a) Nitrogen and phosphorus loads contributed by the proposed new development activity
 13 shall not exceed the following unit-area mass loading rates for nitrogen and phosphorus,
 14 respectively, expressed in units of pounds/acre/year: 2.2 and 0.33. Proposed
 15 development that would replace or expand structures or improvements that existed as of
 16 December 2006, the end of the baseline period, and that would not result in a net increase
 17 in built-upon area shall not be required to meet the nutrient loading targets or high-
 18 density requirements except to the extent that the developer shall provide stormwater
 19 control at least equal to the previous development. Proposed development that would
 20 replace or expand existing structures or improvements and would result in an net increase
 21 in built-upon are shall have the option either to achieve at least the percentage loading
 22 reduction objectives stated in 15A NCAC 02B .0275 as applied to nitrogen and
 23 phosphorus loading from the previous development for the entire project site, or to meet
 24 the loading rate targets described in this item. These requirements shall supersede those
 25 identified in 15A NCAC 02B .0104(q). The developer shall determine the need for
 26 engineered stormwater controls to meet these loading rate targets by using the loading
 27 calculation method called for in Sub-Item (54)(a) of 15A NCAC 02B .0277 or other
 28 equivalent method acceptable to the Division.

29 ***** (Onsite Treatment Option: A (50 percent N / 60 percent P) *****

30 (ii) ~~The developer shall have the option of offsetting part of their nitrogen and~~
 31 ~~phosphorus loads by implementing or funding offsite management measures.~~
 32 ~~Before using an offsite offset option, a development shall implement structural~~
 33 ~~stormwater controls that attain a minimum of 50 percent reduction in the post-~~
 34 ~~construction nitrogen and 60 percent reduction in post construction phosphorus~~
 35 ~~loading rate on site and shall meet any requirements for engineered stormwater~~
 36 ~~controls described in Sub-Item (3)(a)(iv) of this Rule. Offsite offsetting~~
 37 ~~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 (3)(a)(i) of this Rule. A developer may make offset payments to the NC Ecosystem Enhancement Program or a public or private seller of reduction credit contingent upon acceptance of payments by that Program. All offset measures identified in this Sub-Item shall meet the requirements of 15A NCAC 02B .0282;

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

(i) Proposed new development activity disturbing at least one quarter acre but less than one acre of land, except as stated in Sub-Item (3)(b)(iii), 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 (3)(d) of this Rule;

(ii) Except as stated in Sub-Item (3)(b)(iii), 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 Sub-Item (3)(d) of this Rule; 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 non-DOT state or federal entity '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 (3)(d) of this Rule.

~~(b)(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 Sub-Item (43)(a)(i) of this Rule. A developer may use any measure that complies with the requirements of Rules .0240 and .0282 of this Section.

*****(Onsite Treatment Option: B (60 percent N / 60 percent P))*****

(ii) ~~The developer shall have the option of offsetting part of their nitrogen and phosphorus loads by implementing or funding offsite management measures. Before using an *offsite offset option, a development shall implement structural* stormwater controls that attain a minimum of 60 percent reduction in the post-construction nitrogen and 60 percent reduction in post construction phosphorus loading rate on site and shall meet any requirements for engineered stormwater~~

~~controls described in Sub Item (3)(a)(iv) of this Rule. 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 (3)(a)(i) of this Rule. A developer may make offset payments to the NC Ecosystem Enhancement Program or a public or private seller of reduction credit contingent upon acceptance of payments by that Program. All offset measures identified in this Sub Item shall meet the requirements of 15A NCAC 02B .0282;~~

~~(iii)(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. Notwithstanding 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~~, treatment shall not be available in the Falls watershed. ~~proposed new development in the Falls watershed shall not have the option to forego treatment;~~

~~(iv)(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 most recent version of the *Stormwater Best Management Practices Manual* published by the Division, 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, stormwater flows from the new development shall not contribute to degradation of waters of the State. 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;~~

~~(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.

~~(v)~~ 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

1 a net increase in built upon area shall not be required to meet the nutrient loading targets
 2 or high density requirements except to the extent that it shall provide stormwater control
 3 at least equal to the previous development. Proposed new development that would
 4 replace or expand existing structures or improvements and would result in a net increase
 5 in built upon area shall have the option either to achieve at least the percentage loading
 6 reduction objectives stated in 15A NCAC 02B .0275 as applied to nitrogen and
 7 phosphorus loading from the previous development for the entire project site, or to meet
 8 the loading rate targets described in Sub Item (3)(a)(i). These requirements shall
 9 supersede those identified in 15A NCAC 02B .0104(q);

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

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

16 ~~(viii) The non NCDOT state or federal entity shall include measures to ensure~~
 17 ~~maintenance of best management practices (BMPs) implemented as a result of~~
 18 ~~the provisions in Sub Item (3)(a) of this Rule for the life of the development;~~

19 ~~(ix) A plan to ensure enforcement and compliance with the provisions in Sub Item~~
 20 ~~(3)(a) of this Rule for the life of the new development.~~

21 (5b) NON-NCDOT STAGED AND ADAPTIVE IMPLEMENTATION REQUIREMENTS. For
 22 existing development, non-NCDOT state and federal entities shall develop and implement staged
 23 load reduction programs for achieving and maintaining nutrient load reductions from existing
 24 development based on the standards set out in this ~~Sub Item~~ Item. Such entities shall submit these
 25 load-reducing programs for approval by the Commission that include the following staged
 26 elements and meet the associated minimum standards for each stage of implementation:

27 ~~(a)~~ In Stage I, entities subject to this rule shall implement a load reduction program that
 28 provides estimates of, and plans for offsetting within 10 years of the effective date of this
 29 Rule, nutrient loading increases from lands developed subsequent to the baseline ~~period~~
 30 ~~but prior to implementation~~ and not subject to the requirements of the Falls Lake new
 31 development stormwater programs. For these post-baseline existing developed lands, the
 32 current loading rate shall be compared to the loading rate for these lands prior to
 33 development for the acres involved, and the difference shall constitute the load reduction
 34 need in annual mass load, in pounds per year. Alternatively, a state or federal entity may
 35 assume uniform pre-development loading rates of 2.89 pounds per acre per year N and
 36 0.63 pounds per acre per year P for these lands. The entity shall achieve this stage one

1 load reduction within 10 years of the effective date of this Rule. This Stage I program
2 shall meet the criteria defined in Item (4) of 15A NCAC 02B .0278.

3 (b~~ii~~) Ten years after the effective date of this Rule and every five years thereafter, a state ~~and~~
4 or federal entity located in the Upper Falls Watershed as defined in Item (3) of 15A
5 NCAC 02B .0275 shall submit and concurrently begin implementing a Stage II load
6 reduction program or revision designed to achieve the percent load reduction objectives
7 from existing developed lands under its control, that includes timeframes for achieving
8 these objectives and that meets the criteria defined in Item (5~~4~~) of this Rule.

9 (5~~4~~) ELEMENTS OF NON-NC DOT LOAD REDUCTION PROGRAMS. A non-NC DOT state or
10 federal entity load reduction program shall address the following elements:

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

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

21 (c) The total amount of nutrient loading reductions in Stage I is not increased for state and
22 federal entities by the requirements to add specific program components to address
23 loading from malfunctioning septic systems and discharging sand filters or high nutrient
24 loading levels pursuant to Sub-Item (4)(a) and (b) of this Rule.

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

28 (i) Wastewater collection systems;

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

31 (iii) Properly functioning and malfunctioning septic systems;

32 (iv) Restoration opportunities in utility corridors;

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

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

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

- 1 (e) A state or federal entities load reduction need shall be based on the developed lands
2 owned or used by the state or federal entity within the Falls watershed.
- 3 (f) Nitrogen and phosphorous loading from existing developed lands, including loading from
4 onsite wastewater treatment systems to the extent accounting methods allow, shall be
5 calculated by applying the accounting tool described in Item (11) and shall quantify
6 baseline loads of nitrogen and phosphorus to surface waters from the lands under the
7 entity's control as well as loading changes post-baseline. It shall also calculate target
8 nitrogen and phosphorus loads and corresponding reduction needs.
- 9 (g) Nitrogen and phosphorus loading from existing developed lands, including loading from
10 onsite wastewater treatment systems to the extent accounting methods allow, shall be
11 calculated by applying the accounting too described in Item (11) of this Rule and shall
12 quantify baseline loads of nitrogen and phosphorus to surface waters from state and
13 federal entities as well as loading changes post-baseline. It shall calculate target nitrogen
14 and phosphorus loads and corresponding load reduction needs.
- 15 (h) The Commission shall recognize reduction credit for early implementation of policies
16 and practices implemented after January 1, 2007 and before timeframes required by this
17 Rule, to reduce runoff and discharge of nitrogen and phosphorus per Session Law 2009-
18 486. The load reduction program shall identify specific load-reducing practices
19 implemented to date subsequent to the baseline period and for which the entity is seeking
20 credit. It shall estimate load reductions for these practices and their anticipated duration
21 using methods provided for in Sub-Item (98).
- 22 (i) The ~~plan~~program shall include a proposed implementation schedule that includes annual
23 implementation expectations. The load reduction program shall identify the types of
24 activities the state of federal entity intends to implement and types of existing
25 development affected, relative proportions or prioritization of practices, relative
26 magnitude of reductions it expects to achieve from each, and the relative costs and
27 efficiencies of each activity to the extent information is available. The program shall
28 identify the duration of anticipated loading reductions, and may seek activities that
29 provide long-term reductions.
- 30 (j) The load reduction program shall identify anticipated funding mechanisms or sources and
31 discuss steps taken or planned to secure such funding.
- 32 (k) The ~~plan~~program shall address the extent of load reduction opportunities intended from
33 the following types of lands:
- 34 (i) Lands owned or otherwise controlled by the state or federal entity; and
35 (ii) Lands other than those on which the entity's load reduction need is based as
36 described in this Item, including lands both within and outside its jurisdiction
37 and third party sellers.

- 1 | (l) The ~~plan~~program shall address the extent of load reduction proposed from, at a minimum,
2 | the following stormwater and ecosystem restoration activities:
- 3 | (i) Bioretention;
 - 4 | (ii) Constructed wetland;
 - 5 | (iii) Sand filter;
 - 6 | (iv) Filter Strip;
 - 7 | (v) Grassed swale;
 - 8 | (vi) Infiltration device;
 - 9 | (vii) Extended dry detention;
 - 10 | (viii) Rainwater harvesting system;
 - 11 | (ix) Treatment of Redevelopment;
 - 12 | (x) Overtreatment of new development;
 - 13 | (xi) Removal of impervious surface;
 - 14 | (xii) Retrofitting treatment into existing stormwater ponds;
 - 15 | (xiii) Off-line regional treatment systems;
 - 16 | (xiv) Wetland or riparian buffer restoration; and
 - 17 | (xv) Reforestation with conservation easement or other protective covenant.
- 18 | (m) A state or federal entity may propose in its load reduction program the use of the
19 | following measures in addition to items listed in (l) and (n), or may propose other
20 | measures for which it can provide accounting methods acceptable to the Division:
- 21 | (i) Redirecting runoff away from impervious surfaces;
 - 22 | (ii) Soil amendments;
 - 23 | (iii) Stream restoration;
 - 24 | (iv) Improved street sweeping; and
 - 25 | (v) Source control, such as per waste and fertilizer controls.
- 26 | (n) The ~~plan~~program shall evaluate the ~~extent~~ of load reduction ~~proposed~~potential from the
27 | following wastewater activities:
- 28 | (i) Creation of surplus relative to an allocation established in 15A NCAC 02B
29 | .0279;
 - 30 | (ii) Expansion of surplus allocation through regionalization;
 - 31 | (iii) Connection of discharging sand filters and malfunctioning septic systems to
32 | central sewer or replacement with permitted non-discharge alternatives;
 - 33 | (iv) Removal of illegal discharges; and
 - 34 | (v) Improvement of wastewater collection systems.
- 35 | (o) The ~~plan~~program shall include explicit evaluation ~~evaluate the extent~~evaluation of load reduction
36 | potential ~~proposed~~ relative to the following factors:
- 37 | (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; and
- (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.

(65) The Commission shall approve a non-NCDOT Stage I load reduction ~~plan~~program if it meets the requirements of Items (43) and (54) of this Rule. The Commission shall approve a Stage II load reduction ~~plan~~program if it meets the requirements of Items (43) and (54) of this Rule unless the Commission finds that the local non-DOT 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-DOT 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-DOT 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-DOT 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 (5)(o) of this Rule. ~~and if it finds that the plan achieves the maximum level of reductions that is technically and economically feasible within the proposed timeframe of implementation based on plan elements identified elsewhere in this Item. Economic feasibility is determined by considering environmental impacts, capital cost of compliance, annual incremental compliance, per capita cost of stormwater programs, cost effectiveness of available measures, and impacts on local and regional commerce.~~—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.

(76) 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.

1 The entity may utilize private or third party sellers. All reductions involving trading with other
 2 parties shall meet the requirements of 15A NCAC 02B .0282.

3 (87) NCDOT REQUIREMENTS. The NCDOT shall develop a single Stormwater Management
 4 Program that will be applicable to the entire Falls watershed and submit this program for approval
 5 by the Division according to the standards set forth below. In addition, the program shall, at a
 6 minimum, comply with NCDOT's then-current stormwater permit. This program shall:

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

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

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

17 (i) For new and widening roads, weight stations, and replacement of existing
 18 bridges, compliance with the riparian buffer protection requirements of Rules
 19 15A NCAC 02B .0233 and .0242 shall be deemed as compliance with the
 20 purposes of this Rule;

21 (ii) New non-road development shall achieve and maintain the nitrogen and
 22 phosphorus percentage load reduction objectives established in 15A NCAC 02B
 23 .0275 relative to either area-weighted average loading rates of all developable
 24 lands as of the baseline period defined in 15A NCAC 02B .0275, or to project-
 25 specific pre-development loading rates. Values for area-weighted average
 26 loading rate targets for nitrogen and phosphorus, respectively, expressed in units
 27 of pounds per acre per year: 2.2 and 0.33. The NCDOT shall determine the need
 28 for engineered stormwater controls to meet these loading rate targets by using
 29 the loading calculation method called for in Item (12) of this Rule ~~Sub-Item~~
 30 ~~(4)(a) of 15A NCAC 02B .0277~~ or other equivalent method acceptable to the
 31 Division. Where stormwater treatment systems are needed to meet these targets,
 32 they shall be designed to control and treat the runoff generated from all surfaces
 33 by one inch of rainfall. Such systems shall be assumed to achieve the nutrient
 34 removal efficiencies identified in the most recent version of the *Stormwater Best*
 35 *Management Practices Manual* published by the Division provided that they
 36 meet associated drawdown and other design specifications included in the same
 37 document. The NCDOT may propose to the Division nutrient removal rates for

1 practices currently included in the BMP Toolbox required under its NPDES
 2 stormwater permit, or may propose revisions to those practices or additional
 3 practices with associated nutrient removal rates. The NCDOT may use any such
 4 practices approved by the Division to meet loading rate targets identified in this
 5 Sub-Item. New non-road development shall also control runoff flows to meet
 6 the purpose of this Rule regarding protection of the nutrient functions and
 7 integrity of receiving waters; and

8 ***** (Onsite Treatment Option: A (50 percent N / 60 percent P) *****

9 (iii) For new non-road development, the NCDOT shall have the option of offsetting
 10 part of their nitrogen and phosphorus loads by implementing or funding offsite
 11 management measures. Before using an offsite offset option, a development
 12 shall implement structural stormwater controls that achieve 50 percent or more
 13 of the needed load reduction in both nitrogen and phosphorus loading
 14 onsite attain a minimum of 50 percent reduction in the post construction nitrogen
 15 and 60 percent reduction in post construction phosphorus loading rate on site
 16 and shall meet any requirements for engineered stormwater controls described in
 17 Sub-Item (78)(c)(ii) of this Rule. Offsite offsetting measures shall achieve at
 18 least equivalent reductions in nitrogen and phosphorus loading to the remaining
 19 reduction needed onsite to comply with the loading rate targets set out in Sub-
 20 Item (78)(c)(ii) of this Rule. The NCDOT may use any measure that complies
 21 with the requirements of Rules .0240 and .0282. of this Section. may make offset
 22 payments to the NC Ecosystem Enhancement Program or a public or private
 23 seller of reduction credit contingent upon acceptance of payments by that
 24 Program. All offset measures identified in this Sub Item shall meet the
 25 requirements of 15A NCAC 02B .0282.

26 ***** (Onsite Treatment Option: B (60 percent N / 60 percent P) *****

27 (iii) ~~For new non road development, the NCDOT shall have the option of offsetting~~
 28 ~~part of their nitrogen and phosphorus loads by implementing or funding offsite~~
 29 ~~management measures. Before using an offsite offset option, a development~~
 30 ~~shall implement structural stormwater controls that attain a minimum of 60~~
 31 ~~percent reduction in the post construction nitrogen and 60 percent reduction in~~
 32 ~~post construction phosphorus loading rate on site and shall meet any~~
 33 ~~requirements for engineered stormwater controls described in Sub Item (7)(c)(ii)~~
 34 ~~of this Rule. Offsite offsetting measures shall achieve at least equivalent~~
 35 ~~reductions in nitrogen and phosphorus loading to the remaining reduction~~
 36 ~~needed onsite to comply with the loading rate targets set out in Sub Item~~
 37 ~~(7)(c)(ii) of this Rule. The NCDOT may make offset payments to the NC~~

~~Ecosystem Enhancement Program or a public or private seller of reduction credit contingent upon acceptance of payments by that Program. All offset measures identified in this Sub Item shall meet the requirements of 15A NCAC 02B .0282.~~

- (d) Establish 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.
- (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 (11) 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) The program shall include 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 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 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) 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) 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

1 based on more accurate reduction estimates developed during the accounting
2 tool development process.

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

16 (e) Initiate a "Nutrient Management Education Program" for NCDOT staff and contractors
17 engaged in the application of fertilizers on highway rights of way. The purpose of this
18 program shall be to contribute to the load reduction objectives established in 15A NCAC
19 02B .0275 through proper application of nutrients, both inorganic fertilizer and organic
20 nutrients, to highway rights of way in the Falls watershed in keeping with the most
21 current state-recognized technical guidance on proper nutrient management; and

22 (f) Address compliance with the riparian buffer protection requirements of 15A NCAC 02B
23 .0233 and .0242 through a Division approval process.

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

27 (a) Upon Commission approval of the accounting methods required in Item (9) of this Rule,
28 subject entities shall comply with the requirements of Sub-Item (3)

29 (b) Within 30 months after the effective date of this Rule, the Division shall submit a Stage I
30 model local program to the Commission for approval that embodies the criteria described
31 in Items (3)(b) and (4) of this Rule. The Division shall work in cooperation with subject
32 state and federal entities and other watershed interests in developing this model program,
33 which shall include the following:

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

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

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

2 (bc) Within six months after the Commission's approval of the Stage I model local program,
3 subject entities shall submit load reduction programs that meet or exceed the
4 requirements of Items (3)(a) and (4) of this Rule to the Division for review and
5 preliminary approval and shall begin implementation and tracking of measures to reduce
6 nutrient loads from existing developed lands owned or controlled by the responsible state
7 or federal entity.

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

15 (de) Within three months after the Commission's approval of a Stage I existing development
16 load reduction program, the affected entity shall complete adoption of and begin
17 implementation of its existing development Stage I load reduction program.

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

25 (fg) Ten years after the effective date of this Rule, and every five years thereafter until either
26 accounting determines load reductions have been achieved, standards are meeting the
27 lake or the Commission takes other actions per 15A NCAC 02B .0275, state and federal
28 entities located in the upper Falls watershed as defined in Item (3) of 15A NCAC 02B
29 ~~.0275 shall begin implementing and shall submit and concurrently begin implementation~~
30 of Stage II load reduction program or program revision to the Division. Within nine
31 months after submittal, the division shall make recommendations to the Commission on
32 approval of these programs. The Commission shall either approve the programs or
33 require changes based on the standards set out in this Rule. Should the Commission
34 require changes, the applicable state or federal entity shall submit revisions within two
35 months, and the Division shall provide follow-up recommendations to the Commission
36 within three months after receiving revisions. Upon approval, the state or federal entity
37 shall adjust implementation based on its approved program.

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

4 (~~hi~~) Once either load reductions are achieved per annual reporting or water quality standards
5 are met in the lake per 15A NCAC 02B .0275, state and federal entities shall submit
6 ~~plan~~ programs to ensure no load increases and shall report annually per Sub-Item (8)(e) on
7 compliance with no increases and take additional actions as necessary.

8 (~~ij~~) At least every five years after the effective date, the Division shall review the accounting
9 methods stipulated under Sub-Item (~~98~~)(a) to determine the need for revisions to those
10 methods and to loading reductions assigned using those methods. Its review shall include
11 values subject to change over time independent of changes resulting from implementation
12 of this Rule, such as untreated export rates that may change with changes in atmospheric
13 deposition. It shall also review values subject to refinement, such as nutrient removal
14 efficiencies.

15 (~~109~~) NCDOT RULE IMPLEMENTATION. For the NCDOT, this Rule shall be implemented as
16 follows:

17 (a) Within 30 months of the effective date of this Rule, the NCDOT shall submit the
18 Stormwater Management Program for the Falls watershed to the Division for approval.

19 This Program shall meet or exceed the requirements in Item (~~78~~) of this Rule;

20 (b) Within 36 months of the effective date of this Rule, the Division shall request the
21 Commission's approval of the NCDOT Stormwater Management Program;

22 (c) Within 36 months of the effective date of this Rule, the NCDOT shall implement the
23 Commission-approved Stormwater Management Program; and

24 (d) Upon implementation, the NCDOT shall submit annual reports to the Division
25 summarizing its activities in implementing each of the requirements in Item (~~78~~) of this
26 Rule. This annual reporting may be incorporated into annual reporting required under
27 NCDOT's NPDES stormwater permit.

28 (~~4011~~) RELATIONSHIP TO OTHER REQUIREMENTS. A party may in its program submittal request
29 that the Division accept its implementation of another stormwater program or programs, such as
30 NPDES stormwater requirements, as satisfying one or more of the requirements set forth in Item
31 (~~34~~) or (~~45~~) of this Rule. The Division shall provide determination on acceptability of any such
32 alternatives prior to requesting Commission approval of programs under this Rule. The party shall
33 include in its program submittal technical information demonstrating the adequacy of the
34 alternative requirements.

35 (~~4412~~) ACCOUNTING METHODS. Within 18 months after the effective date of this Rule, the Division
36 shall submit a nutrient accounting framework to the Commission for approval. This framework
37 shall include tools for quantifying load reduction assignments on existing development for parties

1 subject to this Rule, load reduction credits from various activities on existing developed lands, and
2 a tool that will allow subject parties to account for loading from new and existing development
3 and loading changes due to BMP implementation. The Division shall work in cooperation with
4 subject parties and other watershed interests in developing this framework. The Division shall
5 periodically revisit these accounting methods to determine the need for revisions to both the
6 methods and to existing development load reduction assignments made using the methods set out
7 in this Rule. It shall do so no less frequently than every 10 years. Its review shall include values
8 subject to change over time independent of changes resulting from implementation of this Rule,
9 such as untreated export rates that may change with changes in atmospheric deposition. It shall
10 also review values subject to refinement, such as BMP nutrient removal efficiencies.

11
12 *History Note: Authority G. S. 143-214.1; 143-214.3; 143-214.5; 143-214.7; 143-215.1; 143-215.3; 143-*
13 *215.3(a)(1); 143-215.6A; 143-215.6B; 143 215.6C; 143-215.8B; 143B-282(c); 143B-282(d); S.L.*
14 *2005-190; S.L. 2006-259; S.L. 2009-337; S.L. 2009-486.*
15 *Temporary Adoption Eff. January 15, 2011;*
16 *Eff. Upon Legislative Approval.*

1 15A NCAC 02B .0282 is adopted with changes as published in 24:24 NCR 2232-2233 as follows:

2
3 **15A NCAC 02B .0282 FALLS WATER SUPPLY NUTRIENT STRATEGY: OPTIONS FOR**
4 **OFFSETTING NUTRIENT LOADS**

5 PURPOSE. This Rule provides parties subject to other rules within the Falls nutrient strategy with options for
6 meeting rule requirements by obtaining or buying credit for nutrient load-reducing activities conducted by others
7 (sellers). It provides the potential for parties who achieve excess load reductions under the Falls nutrient strategy to
8 recover certain costs by selling such credits, and it provides opportunity for third parties to produce reductions and
9 sell credits. Overall it provides the potential for more cost-effective achievement of strategy reduction objectives.
10 Accounting is required to ensure and track the availability and use of trading credits. This accounting will be
11 compared against compliance accounting required under other rules of the Falls nutrient strategy to ensure that
12 crediting is properly accounted for. This Rule furthers the adaptive management intent of the strategy to protect the
13 water supply, aquatic life, and recreational uses of Falls Reservoir. The minimum requirements for the exchange of
14 load reduction credits are:

15 (1) PREREQUISITES. The following buyers shall meet applicable criteria identified here and in rules
16 imposing reduction requirements on them before utilizing the option outlined in this Rule:

17 (a) Agriculture Rule .0280: Owners of Agricultural producers land shall receive approval
18 from the Watershed Oversight Committee to obtain offsite credit pursuant to the
19 conditions of Sub-Item ~~(75)~~(b)(vii) of Rule .0280;

20 (b) New Development Rule .0277: Developers shall meet onsite reduction requirements
21 enumerated in Sub-Item (3)(a)(vii) of Rule .0277 before obtaining offsite credit;

22 (c) Wastewater Rule .0279: New and expanding dischargers shall first make all reasonable
23 efforts to obtain allocation from existing dischargers as stated in Sub-Items (7)(a)(ii) and
24 (8)(a)(ii), respectively of Rule .0279; and

25 (d) State and Federal Entities Stormwater Rule .0281:

26 (i) Non-DOT entities shall meet onsite new development reduction requirements
27 enumerated in Sub-Item (3)(a)(ii) of Rule .0281; and

28 (ii) NC DOT shall meet onsite non-road new development reduction requirements
29 enumerated in Sub-Item (4)(c)(iii) of Rule .0281 before obtaining offsite credit.

30 (2) The party seeking approval to sell ~~loading~~load reduction credits pursuant to this Rule shall
31 demonstrate to the Division that such reductions meet the following criteria:

32 (a) Load reductions eligible for credit shall not include reductions ~~achieved~~that result from
33 actions required to mitigate ~~or offset~~nutrient load-increasing actions ~~that increase nutrient~~
34 ~~loading~~ under regulations other than the Falls nutrient strategyany regulation, except
35 where a rule in this Section expressly allows such credit; and

1 (b) The party seeking to sell credits shall define the nature of the activities that would
 2 produce reductions and define the magnitude and duration of those reductions to the
 3 Division, including addressing the following items:

- 4 (i) Quantify and account for the relative uncertainties in reduction need estimates
 5 and ~~loadingload~~ reduction estimates;
 6 (ii) Ensure that ~~loadingload~~ reductions shall take place at the time and for the
 7 duration in which the reduction need occurs; and
 8 (iii) Demonstrate means adequate for assuring the achievement and claimed duration
 9 of ~~loadingload~~ reduction, including the cooperative involvement of any other
 10 involved parties.

11 ~~(3c)~~ Geographic Restrictions. Eligibility to use ~~loadingload~~ reductions as credit is based on
 12 the following geographic criteria:

- 13 ~~(a)~~ Impacts in the upper Falls watershed as defined in Item (19) of 15A NCAC
 14 02B. 0276 may be offset only by ~~loadingload~~ reductions achieved in the upper
 15 Falls watershed; and
 16 ~~(b)~~ Impacts in the lower Falls watershed as defined in Item (20) of 15A NCAC 02B.
 17 0276 ~~may shall~~ be offset ~~only~~ by ~~loadingload~~ reductions achieved anywhere
 18 within the Falls watershed.

19 ~~(43)~~ The party seeking approval to sell ~~loadingload~~ reduction credits shall provide for accounting and
 20 tracking methods that ensure genuine, accurate, and verifiable achievement of the purposes of this
 21 Rule, and shall otherwise meet the requirements of Rule .0240 of this Section, which establishes
 22 procedural requirements for nutrient offset payments. The Division shall work cooperatively with
 23 interested parties at their request to develop such accounting and tracking methods to support the
 24 requirements of Item (2) of this Rule.

25 ~~(54)~~ Local governments have the option of combining their reduction needs from NPDES dischargers
 26 assigned allocations in 15A NCAC 02B .0279 and existing development as described in 15A
 27 NCAC 02B .0278, including loads from properly functioning and malfunctioning septic systems
 28 and discharging sand filters, into one reduction and allocation requirement and meet them jointly.

29 ~~(65)~~ Proposals for use of offsetting actions as described in this Rule shall become effective after
 30 determination by the Director that the proposal contains adequate scientific or engineering
 31 standards or procedures necessary to achieve and account for load reductions as required under
 32 Items (2) ~~through (4) and (3)~~ of this Rule, and that specific accounting tools required for these
 33 purposes in individual rules have been adequately established. In making this determination, the
 34 Director shall also evaluate the potential for ~~loadingload~~ offset elsewhere that results into produce
 35 localized adverse water quality impacts that contribute to impairment of classified uses of the
 36 affected waters.

1 (76) A party seeking to purchase nutrient offset credit from the NC Ecosystem Enhancement Program
 2 or from a public or private seller of reduction credit shall meet the applicable requirements of Rule
 3 .0240 of this Section, which establishes procedural requirements for nutrient offset payments, in
 4 addition to applicable requirements of this Rule. Requirements of Rule .0240 include, but are not
 5 limited to, the requirement for non-governmental entities to purchase credit from a provider other
 6 than the NC Ecosystem Enhancement Program if such credit is available.

7 (7) The Watershed Oversight Committee under Rule 15A NCAC 2B .0280 may satisfy the seller
 8 requirements of Items (2) and (3) of this Rule and the trading provisions of Rule .0280 for
 9 individual agricultural land owners by submitting to the Division for approval a trading program,
 10 or revisions to such a program, that demonstrates how individual trades shall meet the
 11 requirements of both ~~rules~~ this Rule and Rule .0280, and by subsequently including in annual
 12 reports required under Rule .0280 separate tracking and accounting for such trades.

13
 14
 15 History Note: Authority G S. 143-214.1; 1432-214.3;143-214.5; 143-214.7; 143-215.1; 143215.3; 143-
 16 215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L.
 17 2005-190; S.L. 2006-259; S.L 2009-337; S.L 2009-486
 18 Temporary Adoption Eff. January 15, 2011;
 19 Eff. Upon Legislative Approval.

1 15A NCAC 02B .0235 is amended as published in 24:24 NCR 2192-2194 as follows:

2
3 **15A NCAC 02B .0235 NEUSE RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT**
4 **STRATEGY: BASINWIDE STORMWATER REQUIREMENTS**

5 The following is the urban stormwater management strategy for the Neuse River Basin:

- 6 (1) The following local governments shall be designated, based on population and other factors, for
7 stormwater management requirements as part of the Neuse River Nutrient Sensitive Waters
8 stormwater management strategy:
- 9 (a) Cary,
 - 10 (b) Durham,
 - 11 (c) Garner,
 - 12 (d) Goldsboro,
 - 13 (e) Havelock,
 - 14 (f) Kinston,
 - 15 (g) New Bern,
 - 16 (h) Raleigh,
 - 17 (i) Smithfield,
 - 18 (j) Wilson
 - 19 (k) Durham County,
 - 20 (l) Johnston County,
 - 21 (m) Orange County,
 - 22 (n) Wake County, and
 - 23 (o) Wayne County.
- 24 (2) Other incorporated areas and other counties, not listed under Item (1) of this Rule, may seek to
25 implement their own local stormwater management plan by complying with the requirements
26 specified in Items (5), (6) and (7) of this Rule.
- 27 (3) The Environmental Management Commission may designate additional local governments by
28 amending this Rule based on their potential to contribute significant nutrient loads to the Neuse
29 River. At a minimum, the Commission shall review the need for additional designations to the
30 stormwater management program as part of the basinwide planning process for the Neuse River
31 Basin. Any local governments that are designated at a later date under the Neuse Nutrient
32 Sensitive Waters Stormwater Program shall meet the requirements under Items (5), (6) and (7) of
33 this Rule.
- 34 (4) Within 12 months of the effective date of this Rule, the Division of Water Quality shall submit a
35 model local stormwater management program plan to control nutrients to the Commission for
36 approval. The Division shall work in cooperation with subject local governments in developing

1 this model plan. The model plan shall address nitrogen reductions for both existing and new
 2 development and include, but not be limited to, the following elements:

3 (a) Review and approval of stormwater management plans for new developments to ensure
 4 that:

5 (i) the nitrogen load contributed by new development activities is held at 70 percent
 6 of the average nitrogen load contributed by the 1995 land uses of the non-urban
 7 areas of the Neuse River Basin. The local governments shall use a nitrogen
 8 export standard of 3.6 pounds/acre/year, determined by the Environmental
 9 Management Commission as 70 percent of the average collective nitrogen load
 10 for the 1995 non-urban land uses in the basin above New Bern. The EMC may
 11 periodically update the design standard based on the availability of new
 12 scientific information. Developers shall have the option of partially offsetting
 13 their nitrogen loads by funding wetland or riparian area restoration through the
 14 North Carolina Wetland Restoration Fund at the rate specified in Rule .0240 of
 15 this Section. However, before using offset payments, the development must
 16 attain, at a minimum, a nitrogen export that does not exceed 6 pounds/acre/year
 17 for residential development and 10 pounds/acre/year for commercial or
 18 industrial development. For the following local governments and any additional
 19 local governments identified in rule by the Commission, the post-construction
 20 requirements of 15 NCAC 02B .0277 shall supersede the requirements in this
 21 Sub-Item for areas within their jurisdiction within the watershed of the Falls of
 22 the Neuse Reservoir: Durham, Raleigh, Durham County, Orange County, and
 23 Wake County.

24 (iii) there is no net increase in peak flow leaving the site from the predevelopment
 25 conditions for the 1-year, 24-hour storm.

26 (b) Review of new development plans for compliance with requirements for protecting and
 27 maintaining existing riparian areas as specified in 15A NCAC 2B .0233;

28 (c) Implementation of public education programs;

29 (d) Identification and removal of illegal discharges;

30 (e) Identification of suitable locations for potential stormwater retrofits (such as riparian
 31 areas) that could be funded by various sources; and

32 (f) Submittal of an annual report on October 30 to the Division documenting progress on and
 33 net changes to nitrogen load from the local government's planning jurisdiction.

34 (5) Within 12 months of the EMC's approval of the model local government stormwater program or
 35 later designation (as described in Item (3) of this Rule), subject local governments shall submit
 36 their local stormwater management program plans to the Commission for review and approval.
 37 These local plans shall equal or exceed the requirements in Item (4) of this Rule. Local

1 governments may submit a more stringent local stormwater management program plan. Local
2 stormwater management programs and modifications to these programs shall be kept on file by the
3 Division of Water Quality.

- 4 (6) Within 18 months of the EMC's approval of the model local government stormwater program or
5 designation, subject local governments shall adopt and implement a local stormwater management
6 program according to their approved plan. Local governments administering a stormwater
7 management program shall submit annual reports to the Division documenting their progress and
8 net changes to nitrogen load by October 30 of each year.

- 9 (7) If a local government fails to submit an acceptable local stormwater management program plan
10 within the time frames established in this Rule or fails to properly implement an approved plan,
11 then stormwater management requirements for existing and new urban areas within its jurisdiction
12 shall be administered through the NPDES municipal stormwater permitting program per 15A
13 NCAC 2H .0126.

14 (a) Subject local governments shall develop and implement comprehensive stormwater
15 management programs, tailored toward nitrogen reduction, for both existing and new
16 development.

17 (b) These stormwater management programs shall provide all components that are required
18 of local government stormwater programs in Sub-items (4)(a) through (f) of this Rule.

19 (c) Local governments that are subject to an NPDES permit shall be covered by the permit
20 for at least one permitting cycle (five years) before they are eligible to submit a local
21 stormwater management program for consideration and approval by the EMC.

22
23 *History Note: Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 1995, c. 572;*

24 *Eff. August 1, 1998.*

25 *Temporary Amended Eff. January 15, 2011:*

26 *Amended Eff. Upon Legislative Approval.*

1 15A NCAC 02B .0315 is amended as published in 24:24 NCR 2236-2238 as follows:

2
3 **15A NCAC 02B .0315 NEUSE RIVER BASIN**

4 (a) The Neuse River Basin Schedule of Classification and Water Quality Standards may be inspected at the
5 following places:

- 6 (1) the Internet at <http://h2o.enr.state.nc.us/csu/>; and
7 (2) the North Carolina Department of Environment and Natural Resources:
8 (A) Raleigh Regional Office
9 3800 Barrett Drive
10 Raleigh, North Carolina
11 (B) Washington Regional Office
12 943 Washington Square Mall
13 Washington, North Carolina
14 (C) Wilmington Regional Office
15 127 Cardinal Drive
16 Wilmington, North Carolina
17 (D) Division of Water Quality
18 Central Office
19 512 North Salisbury Street
20 Raleigh, North Carolina.

21 (b) The Neuse River Basin Schedule of Classification and Water Quality Standards was amended effective:

- 22 (1) March 1, 1977;
23 (2) December 13, 1979;
24 (3) September 14, 1980;
25 (4) August 9, 1981;
26 (5) January 1, 1982;
27 (6) April 1, 1982;
28 (7) December 1, 1983;
29 (8) January 1, 1985;
30 (9) August 1, 1985;
31 (10) February 1, 1986;
32 (11) May 1, 1988;
33 (12) July 1, 1988;
34 (13) October 1, 1988;
35 (14) January 1, 1990;
36 (15) August 1, 1990;
37 (16) December 1, 1990;

- 1 (17) July 1, 1991;
 2 (18) August 3, 1992;
 3 (19) April 1, 1994;
 4 (20) July 1, 1996;
 5 (21) September 1, 1996;
 6 (22) April 1, 1997;
 7 (23) August 1, 1998;
 8 (24) August 1, 2002;
 9 (25) July 1, 2004;
 10 (26) November 1, 2007;
 11 (27) January 15, 2011.

12 (c) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended
 13 effective July 1, 1988 as follows:

- 14 (1) Smith Creek [Index No. 27-23-(1)] from source to the dam at Wake Forest Reservoir has been
 15 reclassified from Class WS-III to WS-I.
 16 (2) Little River [Index No. 27-57-(1)] from source to the N.C. Hwy. 97 Bridge near Zebulon including
 17 all tributaries has been reclassified from Class WS-III to WS-I.
 18 (3) An unnamed tributary to Buffalo Creek just upstream of Robertson's Pond in Wake County from
 19 source to Buffalo Creek including Leo's Pond has been reclassified from Class C to B.

20 (d) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended
 21 effective October 1, 1988 as follows:

- 22 (1) Walnut Creek (Lake Johnson, Lake Raleigh) [Index No. 27-34-(1)]. Lake Johnson and Lake
 23 Raleigh have been reclassified from Class WS-III to Class WS-III B.
 24 (2) Haw Creek (Camp Charles Lake) (Index No. 27-86-3-7) from the backwaters of Camp Charles
 25 Lake to dam at Camp Charles Lake has been reclassified from Class C to Class B.

26 (e) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended
 27 effective January 1, 1990 as follows:

- 28 (1) Neuse-Southeast Pamlico Sound ORW Area which includes all waters within a line beginning at
 29 the southwest tip of Ocracoke Island, and extending north west along the Tar-Pamlico River Basin
 30 and Neuse River Basin boundary line to Lat. 35 degrees 06' 30", thence in a southwest direction to
 31 Ship Point and all tributaries, were reclassified from Class SA NSW to Class SA NSW ORW.
 32 (2) Core Sound (Index No. 27-149) from northeastern limit of White Oak River Basin (a line from
 33 Hall Point to Drum Inlet) to Pamlico Sound and all tributaries, except Thorofare, John Day Ditch
 34 were reclassified from Class SA NSW to Class SA NSW ORW.

35 (f) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
 36 December 1, 1990 with the reclassification of the following waters as described in (1) through (3) of this Paragraph.

- 1 (1) Northwest Creek from its source to the Neuse River (Index No. 27-105) from Class SC Sw NSW
2 to Class SB Sw NSW;
- 3 (2) Upper Broad Creek [Index No. 27-106-(7)] from Pamlico County SR 1103 at Lees Landing to the
4 Neuse River from Class SC Sw NSW to Class SB Sw NSW; and
- 5 (3) Goose Creek [Index No. 27-107-(11)] from Wood Landing to the Neuse River from Class SC Sw
6 NSW to Class SB Sw NSW.
- 7 (g) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
8 July 1, 1991 with the reclassification of the Bay River [Index No. 27-150-(1)] within a line running from Flea Point
9 to the Hammock, east to a line running from Bell Point to Darby Point, including Harper Creek, Tempe Gut, Moore
10 Creek and Newton Creek, and excluding that portion of the Bay River landward of a line running from Poorhouse
11 Point to Darby Point from Classes SC Sw NSW and SC Sw NSW HQW to Class SA NSW.
- 12 (h) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
13 August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I,
14 WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the
15 revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August
16 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification
17 due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS
18 classification to an alternate appropriate primary classification after being identified as downstream of a water
19 supply intake or identified as not being used for water supply purposes.
- 20 (i) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
21 April 1, 1994 as follows:
- 22 (1) Lake Crabtree [Index No. 27-33-(1)] was reclassified from Class C NSW to Class B NSW.
- 23 (2) The Eno River from Orange County State Road 1561 to Durham County State Road 1003 [Index
24 No. 27-10-(16)] was reclassified from Class WS-IV NSW to Class WS-IV B NSW.
- 25 (3) Silver Lake (Index No. 27-43-5) was reclassified from Class WS-III NSW to Class WS-III B
26 NSW.
- 27 (j) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
28 July 1, 1996 with the reclassification of Austin Creek [Index Nos. 27-23-3-(1) and 27-23-3-(2)] from its source to
29 Smith Creek from classes WS-III NSW and WS-III NSW CA to class C NSW.
- 30 (k) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
31 September 1, 1996 with the reclassification of an unnamed tributary to Hannah Creek (Tuckers Lake) [Index No. 27-
32 52-6-0.5] from Class C NSW to Class B NSW.
- 33 (l) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
34 April 1, 1997 with the reclassification of the Neuse River (including tributaries) from mouth of Marks Creek to a
35 point 1.3 miles downstream of Johnston County State Road 1908 to class WS-IV NSW and from a point 1.3 miles
36 downstream of Johnston County State Road 1908 to the Johnston County Water Supply intake (located 1.8 miles
37 downstream of Johnston County State Road 1908) to class WS-IV CA NSW [Index Nos. 27-(36) and 27-(38.5)].

1 (m) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
 2 August 1, 1998 with the revision of the Critical Area and Protected Area boundaries surrounding the Falls Lake
 3 water supply reservoir. The revisions to these boundaries is the result of the Corps of Engineers raising the lake's
 4 normal pool elevation. The result of these revisions is the Critical and Protected Area boundaries (classifications)
 5 may extend further upstream than the current designations. The Critical Area for a WS-IV reservoir is defined as .5
 6 miles and draining to the normal pool elevation. The Protected Area for a WS-IV reservoir is defined as 5 miles and
 7 draining to the normal pool elevation. The normal pool elevation of the Falls Lake reservoir has changed from
 8 250.1 feet mean sea level (msl) to 251.5 feet msl.

9 (n) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
 10 August 1, 2002 with the reclassification of the Neuse River [portions of Index No. 27-(56)], including portions of its
 11 tributaries, from a point 0.7 mile downstream of the mouth of Coxes Creek to a point 0.6 mile upstream of Lenoir
 12 County proposed water supply intake from Class C NSW to Class WS-IV NSW and from a point 0.6 mile upstream
 13 of Lenoir County proposed water supply intake to Lenoir proposed water supply intake from Class C NSW to Class
 14 WS-IV CA NSW.

15 (o) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
 16 July 1, 2004 with the reclassification of the Neuse River (including tributaries in Wake County) [Index Nos. 27-
 17 (20.7), 27-21, 27-21-1] from the dam at Falls Lake to a point 0.5 mile upstream of the Town of Wake Forest Water
 18 Supply Intake (former water supply intake for Burlington Mills Wake Finishing Plant) from Class C NSW to Class
 19 WS-IV NSW and from a point 0.5 mile upstream of the Town of Wake Forest proposed water supply intake to
 20 Town of Wake Forest proposed water supply intake [Index No. 27-(20.1)] from Class C NSW to Class WS-IV NSW
 21 CA. Fantasy Lake [Index No. 27 -57-3-1-1], a former rock quarry within a WS-II NSW water supply watershed,
 22 was reclassified from Class WS-II NSW to Class WS-II NSW CA.

23 (p) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
 24 November 1, 2007 with the reclassification of the entire watershed of Deep Creek (Index No. 27-3-4) from source to
 25 Flat River from Class WS-III NSW to Class WS-III ORW NSW.

26 (q) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective
 27 January 15, 2011 with the reclassification of all Class C NSW waters and all Class B NSW waters upstream of the
 28 dam at Falls Reservoir from Class C NSW and Class B NSW to Class WS-V NSW and Class WS-V & B NSW,
 29 respectively. All waters within the Falls Watershed are within a designated Critical Water Supply Watershed and
 30 are subject to a special management strategy specified in Rules 15A NCAC 02B .0275 through .0283.

31
 32 *History Note: Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
 33 *Eff. February 1, 1976;*
 34 *Amended Eff. Upon Legislative Approval; November 1, 2007; July 1, 2004 (see SL 2001-361);*
 35 *August 1, 2002; August 1, 1998; April 1, 1997; September 1, 1996; July 1, 1996; April 1, 1994;*
 36 *August 3, 1992; July 1, 1991.*