STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

1501 MAIL SERVICE CENTER, RALEIGH, N.C. 27699-1501

LYNDO TIPPETT
SECRETARY

September 6, 2007

Mr. Rich Gannon
DENR/Division of Water Quality
Planning Section
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

Subject: NC Board of Transportation and NCDOT's comments/recommendations on the proposed Jordan Reservoir Nutrient Management Strategy Rules. Rules cited as 15A NCAC 02B .0262 - .0272 and amendments to 15A NCAC .02B .0311

Dear Mr. Gannon:

The North Carolina Board of Transportation (BOT) and the Department appreciate the opportunity to provide comments on the proposed Jordan Reservoir Nutrient Management Strategy rules cited as 15A NCAC 02B .0262 - .0272 and amendments to 15A NCAC .02B .0311 in the North Carolina Register Volume 21, Issue 24 published on June 15, 2007. As you know, Department staff along with the Department of Environment and Natural Resources' staff have provided presentations and information to our Board on several occasions. Staff has reviewed the proposed rules and has prepared the following comments, which the Board of Transportation endorses. We will appreciate the Environmental Management Commission's (EMC) careful consideration of the recommendations contained herein, in accordance with the provisions of N.C.G.S. § 150B-21.4(a1).

As you know, Department of Transportation (DOT) staff and Department of Environment and Natural Resources (DENR) staff have been involved in discussions regarding these issues for nearly two years. Much of that discussion occurred prior to the publication of the subject proposed rules, in the NC Register this past June, and centered around nutrient and stormwater management issues pertinent to DOT's activities. Since the publication of the proposed rules, our respective staff members have been engaged in productive discussions regarding potential alternative approaches to managing nutrient sources associated with Department activities. We desire to continue working in partnership with DENR and the EMC to develop cost effective management strategies designed to minimize the impact of our activities on nutrient delivery to the Jordan Reservoir.

The essential building block for developing such strategies is an accurate, quantitative, technical analysis of nutrient loads generated by the Department and the resulting impact to receiving waters. This analysis should be conducted via a process that is open and inclusive for both agencies.

Unfortunately, these rules are not the product of a process that included an accurate technical analysis of DOT nutrient loads, nor did the process allow for the Department's participation in such a technical analysis. The proposed rule 15A NCAC 02B .0262 (3) states that the nutrient reduction goals are based on a field-calibrated nutrient response model. The nutrient response model and other associated technical analyses developed by DENR failed to include a quantification of DOT nutrient loads. Additionally, DENR's nutrient response model was not developed with participation from the Department. This is contrary to, at a minimum, the spirit of N.C.G.S. §143-215.1(c5), which requires the model to be developed in conjunction with the affected parties. Given that the DOT's compliance cost is estimated to range as high as $600 million, per the Fiscal Note published by the Division of Water Quality (DWQ) on June 11, 2007, DENR's failure to perform the appropriate technical analyses inclusive of the DOT is unacceptable.

Since the technical basis for these rules lacks any quantification of the Department's contribution to the water quality impairment in Jordan Reservoir, these rules as they apply to DOT represent an arbitrarily selected management approach. Based on review of the proposed rules and associated Fiscal Note, it is clear that DENR is focused on stormwater treatment as its selected means by which DOT must demonstrate compliance with 15A NCAC 02B .0271. The language in 15A NCAC 02B .0271 makes it very difficult for the Department to pursue cost effective and environmentally effective nutrient reduction source control solutions.

According to DENR's own data, as presented in the DWQ Fiscal Note, the Department contributes approximately two percent of the total nitrogen load and three percent of the total phosphorus load in the Jordan Reservoir watershed. These small loads dictate that cost-effective solutions be employed to achieve a benefit that is proportionate with the load contribution. There is no technical basis to justify the hundreds of millions of dollars it may cost the Department to comply with the proposed rules, in particular 15A NCAC 02B .0271. We are very concerned about the unreasonable and disproportionate cost of compliance with the proposed rules relative to the DOT's small percentage of contribution to the nutrient load received by the lake. Hence, we do not support 15A NCAC 02B .0271 in its current form as a viable strategy for reducing nutrient loads in the Jordan Reservoir.

With respect to riparian buffers, over the past seven years DOT engineers have learned and developed effective design and operational procedures to comply with the promulgated riparian buffer protection rules in the Neuse, Tar-Pamlico, Randleman, and Catawba River watersheds.

To the extent practicable, the protection of existing riparian buffer vegetation is an important component of a nutrient management strategy. Where impacts to the buffer are unavoidable, mitigation should be required as described in the proposed 15A NCAC 02B .0268 rule. However, the proposed 15A NCAC 02B .0267 rule allows for the destruction of existing riparian buffers to accommodate space for wet detention ponds, bioretention basins, and stormwater wetlands. Existing riparian buffers are more effective at controlling nutrients than these man-made structures.

Additionally, buffers provide important natural wildlife habitat and stream bank stabilization benefits, which these structures do not provide. Therefore, allowing these stormwater treatment structures to be built in the buffer zone directly conflicts with the stated purpose of the rule as described in 15A NCAC 02B .0267 (1). Finally, DWQ's Fiscal Note does not recognize or quantify the increased costs associated with maintaining structural stormwater treatment devices in flood prone riparian buffer zones.

The Board of Transportation believes that an environmentally protective compliance strategy that is proportionate to determined impact and addresses riparian protection can be crafted in partnership with DENR. To fulfill this end, the Board respectfully requests that the EMC consider the following recommendations:

- In partnership with the DOT and DENR should establish the necessary technical basis for requiring nutrient reductions from DOT controlled lands before implementing any of the proposed rules affecting the DOT. At a minimum, this analysis should include a quantification of the generated and delivered nutrient loads from DOT roadways and industrial facilities during the baseline period described in 15A NCAC 02B .0262 (3). Additionally, the Jordan Reservoir nutrient response model should be used to quantify the water quality improvement achieved by implementing the nutrient load reductions described in 15A NCAC 02B .0262 from DOT roadways and industrial facilities.

- Rule 15A NCAC 02B .0271 (4) (c) and .0271 (4) (d) should be removed from the rules as noted in Appendix A. In the alternative, DENR should draft language for 15A NCAC 02B .0271 as it applies to DOT, such that the requirements that are derived from the quantitative analysis described above are *"fair, reasonable, and proportionate"* with the DOT's contribution to the water quality impairment as per N.C.G.S. §143-215.8B(b)(1), and that provide cost effective nutrient reductions that result in measurable water quality benefits to the Jordan Reservoir. 5A NCAC 02B .0271 should also provide provisions to allow credit towards compliance with these rules from other programs and state stormwater requirements.

- DOT's compliance with Jordan Reservoir Nutrient Management Strategy rules should be integrated, by rule, with the DOT's statewide NPDES Stormwater Permit (NCS000250).

- Wet detention ponds, bioretention basins, and constructed stormwater wetlands should not be allowed in either zone one or zone two of the riparian buffer area.

The attached Appendix A includes additional recommendations for your consideration. We want to acknowledge that we have received correspondence from Assistant Secretary for Environment Robin W. Smith pertaining to our staffs' continuing discussions on potential alternative rule language, but it is our intent herein to comment on the rules as they have been proposed and published in the June 15, 2007 edition of the NC Register.

Thank you for this opportunity to comment on the subject proposed rules. The Department and the Board of Transportation look forward to continuing our cooperative efforts to finding fair, reasonable and cost effective solutions to the nutrient problems in the Jordan Lake watershed.

Sincerely,

J. Douglas Galyon
Chairman
NC Board of Transportation

Lyndo Tippett
Secretary
NC Department of Transportation

Attachment

cc: Board of Transportation Members
Bill Rosser, PE, State Highway Administrator
Deborah Barbour, PE, Director of Preconstruction
Gregory J. Thorpe, Ph.D., PDEA Branch Manager

NORTH CAROLINA REGISTER

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Contact List for Rulemaking Questions or Concerns

For questions or concerns regarding the Administrative Procedure Act or any of its components, consult with the agencies below. The bolded headings are typical issues which the given agency can address, but are not inclusive.

Rule Notices, Filings, Register, Deadlines, Copies of Proposed Rules, etc.

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Fiscal Notes & Economic Analysis

Office of State Budget and Management
116 West Jones Street — (919) 807-4700
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Governor's Review

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Raleigh, North Carolina 27603

Legislative Process Concerning Rule-making

Joint Legislative Administrative Procedure Oversight Committee
545 Legislative Office Building
300 North Salisbury Street — (919) 733-2578
Raleigh, North Carolina 27611 — (919) 715-5460 FAX

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County and Municipality Government Questions or Notification

NC Association of County Commissioners
215 North Dawson Street — (919) 715-2893
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NORTH CAROLINA REGISTER
Publication Schedule for January 2007 – December 2007

FILING DEADLINES			NOTICE OF TEXT		PERMANENT RULE			TEMPORARY RULES
Volume & issue number	Issue date	Last day for filing	Earliest date for public hearing	End of required comment period	Deadline to submit to RRC for review at next meeting	Earliest Eff. Date of Permanent Rule	Delayed Eff. Date of Permanent Rule (first legislative day of the next regular session)	270th day from publication in the Register
21:13	01/02/07	12/07/06	01/17/07	03/05/07	03/20/07	05/01/07	05/08	09/29/07
21:14	01/16/07	12/20/06	01/31/07	03/19/07	03/20/07	05/01/07	05/08	10/13/07
21:15	02/01/07	01/10/07	02/16/07	04/02/07	04/20/07	06/01/07	05/08	10/29/07
21:16	02/15/07	01/25/07	03/02/07	04/16/07	04/20/07	06/01/07	05/08	11/12/07
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21:18	03/15/07	02/22/07	03/30/07	05/14/07	05/21/07	07/01/07	05/08	12/10/07
21:19	04/02/07	03/12/07	04/17/07	06/01/07	06/20/07	08/01/07	05/08	12/28/07
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21:22	05/15/07	04/24/07	05/30/07	07/16/07	07/20/07	09/01/07	05/08	02/09/08
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22:01	0702/07	06/11/07	07/17/07	08/31/07	09/20/07	11/01/07	05/08	03/28/08
22:02	07/16/07	06/22/07	07/31/07	09/14/07	09/20/07	11/01/07	05/08	04/11/08
22:03	08/01/07	07/11/07	08/16/07	10/01/07	10/22/07	12/01/07	05/08	04/27/08
22:04	08/15/07	07/25/07	08/30/07	10/15/07	10/22/07	12/01/07	05/08	05/11/08
22:05	09/04/07	08/13/07	09/19/07	11/05/07	11/20/07	01/01/08	05/08	05/31/08
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22:09	11/01/07	10/11/07	11/16/07	12/31/07	01/21/08	03/01/08	05/08	07/28/08
22:10	11/15/07	10/25/07	11/30/07	01/14/08	01/21/08	03/01/08	05/08	08/11/08
22:11	12/03/07	11/08/07	12/18/07	02/01/08	02/20/08	04/01/08	05/08	08/29/08
22:12	12/17/07	11/26/07	01/01/08	02/15/08	02/20/08	04/01/08	05/08	09/12/08

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EXPLANATION OF THE PUBLICATION SCHEDULE

This Publication Schedule is prepared by the Office of Administrative Hearings as a public service and the computation of time periods are not to be deemed binding or controlling. Time is computed according to 26 NCAC 2C .0302 and the Rules of Civil Procedure, Rule 6.

GENERAL

The North Carolina Register shall be published twice a month and contains the following information submitted for publication by a state agency:

(1) temporary rules;
(2) notices of rule-making proceedings;
(3) text of proposed rules;
(4) text of permanent rules approved by the Rules Review Commission;
(5) notices of receipt of a petition for municipal incorporation, as required by G.S. 120-165;
(6) Executive Orders of the Governor;
(7) final decision letters from the U.S. Attorney General concerning changes in laws affecting voting in a jurisdiction subject of Section 5 of the Voting Rights Act of 1965, as required by G.S. 120-30.9H;
(8) orders of the Tax Review Board issued under G.S. 105-241.2; and
(9) other information the Codifier of Rules determines to be helpful to the public.

COMPUTING TIME: In computing time in the schedule, the day of publication of the North Carolina Register is not included. The last day of the period so computed is included, unless it is a Saturday, Sunday, or State holiday, in which event the period runs until the preceding day which is not a Saturday, Sunday, or State holiday.

FILING DEADLINES

ISSUE DATE: The Register is published on the first and fifteen of each month if the first or fifteenth of the month is not a Saturday, Sunday, or State holiday for employees mandated by the State Personnel Commission. If the first or fifteenth of any month is a Saturday, Sunday, or a holiday for State employees, the North Carolina Register issue for that day will be published on the day of that month after the first or fifteenth that is not a Saturday, Sunday, or holiday for State employees.

LAST DAY FOR FILING: The last day for filing for any issue is 15 days before the issue date excluding Saturdays, Sundays, and holidays for State employees.

NOTICE OF TEXT

EARLIEST DATE FOR PUBLIC HEARING: The hearing date shall be at least 15 days after the date a notice of the hearing is published.

END OF REQUIRED COMMENT PERIOD An agency shall accept comments on the text of a proposed rule for at least 60 days after the text is published or until the date of any public hearings held on the proposed rule, whichever is longer.

DEADLINE TO SUBMIT TO THE RULES REVIEW COMMISSION: The Commission shall review a rule submitted to it on or before the twentieth of a month by the last day of the next month.

FIRST LEGISLATIVE DAY OF THE NEXT REGULAR SESSION OF THE GENERAL ASSEMBLY: This date is the first legislative day of the next regular session of the General Assembly following approval of the rule by the Rules Review Commission. See G.S. 150B-21.3, Effective date of rules.

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Notice is hereby given in accordance with G.S. 150B-21.2 that the Environmental Management Commission intends to adopt the rules cited as 15A NCAC 02B .0262 - .0272 and amend the rule cited as 15A NCAC 02B .0311.

Proposed Effective Date: *March 1, 2008*

Public Hearing:
Date: *July 12, 2007*
Time: *6:30 p.m.*
Location: *Century Hall at Century Center, 100 N. Greensboro Street, Carrboro, NC 27510*

Public Hearing:
Date: *July 17, 2007*
Time: *1:30 p.m. – 4:00 p.m. and 6:30 p.m.*
Location: *Koury Business Center at Elon University, 271 North Williamson Avenue, Elon, NC 27244*

Reason for Proposed Action: *B. Everett Jordan Reservoir in the upper Cape Fear River Basin serves as a drinking water source for the growing cities of Apex, Cary, Durham, Morrisville, RTP, and Chatham County. In addition, the reservoir serves as a popular primary contact recreational resource and as aquatic habitat for a variety of wildlife. Since its impoundment in 1983, the reservoir has consistently shown substantial nutrient over-enrichment. That same year, the NC Environmental Management Commission designated it a 'Nutrient Sensitive Water', requiring development of a nutrient control strategy. Initial requirements reduced phosphorus concentrations in watershed wastewater discharges. Despite these measures, in 2002 the Division of Water Quality determined that the Upper New Hope Creek Arm of the reservoir no longer met its designated uses due to excess nutrient inputs. The Division made the same determination for the rest of the reservoir in 2006. The Commission is responsible for protecting and restoring water quality in North Carolina, and has determined that additional nutrient management actions are needed to recover the uses of Jordan Reservoir. In addition, the sweeping Clean Water Responsibility Act of 1997, adopted by the NC General Assembly as S.L. 1997-458, included requirements to address water quality problems in Nutrient Sensitive Waters including Jordan Reservoir. It mandated stricter nutrient concentration limits for point source discharges to these waters, and it directed the Commission to establish goals for reducing overall nutrient inputs and to ensure that point and nonpoint sources share proportionally in responsibility for reducing inputs. In addition to state legislative requirements, the reservoir's impaired status invokes federal Clean Water Act requirements to develop and implement nutrient leading reduction goals for the reservoir in the form of a 'total maximum daily load' (TMDL).*

Procedure by which a person can object to the agency on a proposed rule: At the public hearings you will have the opportunity to make oral comments and submit written comments. You may also submit written comments any time until August 14, 2007. The Hearing Officers may need to limit the length of time that you speak at the public hearings, so that all those who wish to speak may have that opportunity.

The EMC is very interested in all comments pertaining to the proposed set of rules. All persons interested and potentially affected by this proposal are strongly encouraged to read this entire notice and make comments on the proposed strategy. The EMC may not adopt a rule that differs substantially from the text of the proposed rule published in this notice unless the EMC publishes the text of the proposed different rule and accepts comments on the new text (see General Statute 150B 21.2 (g)). The proposed effective date for final rules pursuant to this public comment process is March 1, 2008, pending approval by the Rules Review Commission. Written comments may be submitted to Rich Gannon or Jason Robinson of the Water Quality Planning Section at the postal address, email address, or fax number listed in this notice.

Comments may be submitted to: *Rich Gannon or Jason Robinson, DENR/ Division of Water Quality, Planning Section, 1617 Mail Service Center, Raleigh, NC 27699-1617, phone (919) 733-5083 extension 356 or 537, fax (919) 715-5637, email rich.gannon@ncmail.net or jason.t.robinson@ncmail.net.*

Comment period ends: *August 14, 2007*

Procedure for Subjecting a Proposed Rule to Legislative Review: If an objection is not resolved prior to the adoption of the rule, a person may also submit written objections to the Rules Review Commission. If the Rules Review Commission receives written and signed objections in accordance with G.S. 150B-21.3(b2) from 10 or more persons clearly requesting review by the legislature and the Rules Review Commission approves the rule, the rule will become effective as provided in G.S. 150B-21.3(b1). The Commission will receive written objections until 5:00 p.m. on the day following the day the Commission approves the rule. The Commission will receive those objections by mail, delivery service, hand delivery, or facsimile transmission. If you have any further questions concerning the submission of objections to the Commission, please call a Commission staff attorney at 919-733-2721.

Fiscal Impact: A copy of the fiscal note can be obtained from the agency.

☒ **State**
☒ **Local**
☒ **Substantive** (≥$3,000,000)
☐ **None**

CHAPTER 02 - ENVIRONMENTAL MANAGEMENT

SUBCHAPTER 02B - SURFACE WATER AND WETLAND STANDARDS

SECTION .0200 - CLASSIFICATIONS AND WATER QUALITY STANDARDS APPLICABLE TO SURFACE WATERS AND WETLANDS OF NORTH CAROLINA

15A NCAC 02B .0262 JORDAN WATER SUPPLY

NUTRIENT STRATEGY: WATERSHED NUTRIENT REDUCTION GOALS

B. Everett Jordan Reservoir and all lands and waters within its watershed, hereafter referred to as Jordan watershed, have been supplementally classified as Nutrient Sensitive Waters (NSW) pursuant to 15A NCAC 02B .0223. The following requirements are intended to restore and maintain nutrient-related water quality standards in the Reservoir; protect its classified uses, including use as a source of water supply for drinking water, culinary and food processing purposes; and maintain or enhance protections currently implemented by local governments in existing water supply watersheds. Water supply waters designated WS-II, WS-III, and WS-IV within the Jordan watershed shall retain their classifications. The remaining waters in the Jordan watershed are hereby classified WS-V. The requirements of all of these water supply classifications shall be retained and applied except as specifically noted within this Rule and Rules 02B .0263 through 02B .0272 and 02B .0311. The entire Jordan watershed is hereby designated a critical water supply watershed and given additional, more stringent requirements than the state minimum water supply watershed management requirements pursuant to G.S. 143-214.5(b). Local governments throughout Jordan watershed shall amend existing ordinances and programs as needed or adopt ordinances and programs to comply with these requirements. The following requirements shall constitute the Jordan water supply nutrient strategy and the more stringent requirements for the Jordan watershed as a critical water supply watershed:

(1) STRATEGY GOAL. Pursuant to the Clean Water Responsibility Act of 1997, G.S. 143-215.1(c5), the Environmental Management Commission hereby establishes the initial goal of reducing the average annual loads of nitrogen and phosphorus delivered to Jordan Reservoir from all point and nonpoint sources of these nutrients located within its watershed, as further specified in Item (3) of this Rule and providing for an adaptive management of the initial goal, as further specified in Item (7) of this Rule.

(2) RESERVOIR ARMS AND SUBWATERSHEDS. This Rule divides Jordan Reservoir and its entire watershed into three arms and their respective subwatersheds as follows:

(a) The Upper New Hope arm of the reservoir, identified by index numbers 16-41-1-(14), 16-41-2-(9.5), and 16-41-(0.5) in the Schedule of Classifications for the Cape Fear River Basin, 15A NCAC 02B .0311, encompasses the upper end of the reservoir upstream of SR 1008, and its subwatershed encompasses all lands and waters draining into it.

(b) The Lower New Hope arm of the reservoir, identified by index number 16-41-(3.5) in the Schedule of Classifications for the Cape Fear River Basin, 15A NCAC 02B .0311, lies downstream of SR 1008 and upstream of the Jordan Lake Dam, excluding the Haw River arm of the reservoir, and its subwatershed encompasses all lands and waters draining into the Lower New Hope arm of the reservoir excluding those that drain first to the Upper New Hope arm of the reservoir and Haw River arm of the reservoir.

(c) The Haw River arm of the reservoir, identified by index number 16-(37.5) in the Schedule of Classifications for the Cape Fear River Basin, 15A NCAC 02B .0311, lies immediately upstream of Jordan Lake Dam, and its subwatershed includes all lands and waters draining into the Haw River arm of the reservoir excluding those first draining into the Upper and Lower New Hope arms.

(3) NUTRIENT REDUCTION GOALS. Each arm of the lake has initial reduction goals, and initial point source and nonpoint source loading targets for both nitrogen and phosphorus based on a field-calibrated nutrient response model developed pursuant to provisions of the Clean Water Responsibility Act of 1997, G.S. 143-215.1(c5). The initial reduction goals and loading targets are to be met collectively by the sources regulated under the Rules listed in Item (6) of this Rule. The initial reduction goals are expressed in terms of a percentage reduction in delivered loads from the baseline years, 1997-2001, while initial loading targets are expressed in pounds per year of delivered load. Each arm and subwatershed shall conform to its respective initial allocations for nitrogen and phosphorus as follows:

(a) The initial at-lake nitrogen loading reduction goals for the arms of Jordan Reservoir, which may be modified periodically by Item (7) of this Rule, regarding adaptive management, are as follows:

(i) The Upper New Hope arm has a 1997-2001 baseline nitrogen load of 986,186 pounds per year, a Total Mass Daily Load (TMDL) reduction goal of 35 percent, and a resulting TMDL of 641,021 pounds of nitrogen per year. The initial point source mass load target is 336,079 pounds of nitrogen per year, and the initial

nonpoint source mass load target is 304,942 pounds of nitrogen per year.

(ii) The Lower New Hope arm has a 1997-2001 baseline nitrogen load of 221,929 pounds per year, the nitrogen TMDL is capped at the baseline nitrogen load, and the resulting TMDL is 221,929 pounds of nitrogen per year. The initial point source mass load target is 6,836 pounds of nitrogen per year, and the initial nonpoint source mass load target is 215,093 pounds of nitrogen per year.

(iii) The Haw River arm has a 1997-2001 baseline nitrogen load of 2,790,217 pounds per year, a TMDL percentage reduction of eight percent, and a resulting TMDL of 2,567,000 pounds of nitrogen per year. The initial point source mass load target is 895,127 pounds of nitrogen per year, and the initial nonpoint source mass load target is 1,671,873 pounds of nitrogen per year.

(b) The initial at-lake phosphorus loading reduction goals for the arms of Jordan Reservoir, which may be modified periodically by Item (7) of this Rule, regarding adaptive management, are as follows:

(i) The Upper New Hope arm has a 1997-2001 baseline phosphorus load of 87,245 pounds per year, a TMDL percentage reduction of five percent, and a resulting TMDL of 82,883 pounds of phosphorus per year. The initial point source mass load target is 23,108 pounds of phosphorus per year, and the initial nonpoint source mass load target of 59,775 pounds of phosphorus per year.

(ii) The Lower New Hope arm has a 1997-2001 baseline phosphorus load of 26,574 pounds per year, the phosphorus TMDL is capped at the baseline phosphorus load, and the resulting TMDL is 26,574 pounds of phosphorus per year. The initial point source mass load target is 498 pounds of phosphorus per year, and the initial nonpoint source mass load target of 26,078 pounds of phosphorus per year.

(iii) The Haw River arm has a 1997-2001 baseline phosphorus load of 378,569 pounds per year, a TMDL percentage reduction of five percent, and a resulting TMDL of 359,641 pounds of phosphorus per year. The initial point source mass load target is 106,001 pounds of phosphorus per year, and the initial nonpoint source mass load target of 253,640 pounds of phosphorus per year.

(4) RELATION TO WATER SUPPLY REQUIREMENTS. For all waters designated as WS-II, WS-III, or WS-IV within the Jordan watershed, the requirements of water supply rules 15A NCAC 02B .0214 through .0216 shall remain in effect with the exception of Sub-Item (3)(b) of those rules addressing nonpoint sources. The nonpoint source requirements of Sub-Item (3)(b) of those Rules are superseded by the requirements of this Rule and 15A NCAC 02B .0263 through .0269, .0271, and .0272, except as specifically stated in any of these Rules. For the remaining waters of Jordan watershed, hereby designated WS-V, the requirements of water supply rule 15A NCAC 02B .0218 and 15A NCAC 02B .0263 through .0272 and .0311 shall be applied. For WS-II, WS-III, and WS-IV waters, the retained requirements of 15A NCAC 02B .0214 through .0216 include the following:

(a) Item (1) of 15A NCAC 02B .0214 through .0216 addressing best usages;

(b) Item (2) of 15A NCAC 02B .0214 through .0216 addressing predominant watershed development conditions, discharges expressly allowed watershed-wide, general prohibitions on and allowances for domestic and industrial discharges, Maximum Contaminant Levels following treatment, and the local option to seek more protective

classifications for portions of existing water supply watersheds;

(c) Sub-Item (3)(a) of 15A NCAC 02B .0214 through .0216 addressing waste discharge limitations; and

(d) Sub-Items (3)(c) through (3)(h) of 15A NCAC 02B .0214 through .0216 addressing aesthetic and human health standards.

(5) RULES ENUMERATED. The additional requirements set out in this Rule and Rules 02B .0263 through .0272 and .0311 address both point sources and nonpoint sources and shall be implemented within the Jordan watershed in order to achieve the nutrient reduction goals stated herein and to protect water supplies in the Jordan watershed. The requirements set out in the rules listed below supplement the water quality standards applicable to Class C waters, as described in Rule .0211 of this Section, that apply to all waters of the Jordan watershed. The following rules shall be implemented within the Jordan watershed:

(a) Rule .0262 Watershed Nutrient Reduction Goals

(b) Rule .0263 Nutrient Management

(c) Rule .0264 Agriculture

(d) Rule .0265 Stormwater Management for New Development

(e) Rule .0266 Stormwater Management for Existing Development

(f) Rule .0267 Protection of Existing Riparian Buffers

(g) Rule .0268 Mitigation for Riparian Buffers

(h) Rule .0269 Options for Offsetting Nutrient Loads

(i) Rule .0270 Wastewater Discharge Requirements

(j) Rule .0271 Stormwater Requirements for State and Federal Entities

(k) Rule .0272 Riparian Buffer Mitigation Fees

(l) Rule .0311 Cape Fear River Basin

(6) APPLICABILITY. Although this Rule and Rules 02B .0263 through 02B .0272 and .0311 apply throughout the Jordan watershed unless otherwise specified, Rules .0265, .0266, .0267, .0268, and .0269 shall apply to local governments in the Jordan watershed as follows:

(a) Rules .0265, .0266, .0267, .0268, and .0269 shall apply to all incorporated municipalities within the Jordan watershed as identified by the Office of the Secretary of State. Those municipalities shall include:

(i) Alamance
(ii) Apex
(iii) Burlington
(iv) Carrboro
(v) Cary
(vi) Chapel Hill
(vii) Durham
(viii) Elon
(ix) Gibsonville
(x) Graham
(xi) Green Level
(xii) Greensboro
(xiii) Haw River
(xiv) Kernersville
(xv) Mebane
(xvi) Morrisville
(xvii) Oak Ridge
(xviii) Ossipee
(xix) Pittsboro
(xx) Pleasant Garden
(xxi) Reidsville
(xxii) Sedalia
(xxiii) Stokesdale
(xxiv) Summerfield
(xxv) Wilsonville
(xxvi) Whitsett

(b) Rules .0265, .0266, .0267, .0268, and .0269 shall apply to the following counties:

(i) Alamance
(ii) Caswell
(iii) Chatham
(iv) Durham
(v) Guilford
(vi) Orange
(vii) Rockingham
(viii) Wake

(7) ADAPTIVE MANAGEMENT. The initial loading goals defined in Item (3) of this Rule may be adjusted based on an evaluation of the effectiveness of the nutrient reduction strategy after at least five years of implementation and periodically thereafter as part of the review of the Cape Fear River Basinwide Water Quality Plan. The Division shall base any adjustment on evaluation of additional water quality data. Such evaluation shall include, but shall not be limited to, the results of a calibrated lake nutrient response model, trend analyses as described in the monitoring section of the B. Everett Jordan Reservoir, North Carolina Nutrient Management Strategy and Total Maximum Daily Load, and lake use support assessment as conducted every five years for the Cape Fear River Basinwide Water Quality Plan. The nutrient response modeling and monitoring on which an adjustment may be based shall meet the criteria set forth in the Clean Water Act, G.S. 143-215.1(c5), and meet or exceed criteria used by the Division

for the monitoring and modeling used to establish the goals in Item (3) of this Rule. Loading goals adjusted as described here shall apply to the rules identified in Item (5) of this Rule upon approval by the Commission.

(8) LIMITATION: 15A NCAC 02B .0262 through .0272 may not fully address significant nutrient sources in the Jordan Watershed in that the rules do not directly address atmospheric sources of nitrogen to the watershed from sources located both within and outside of the watershed. As better information becomes available from ongoing research on atmospheric nitrogen loading to the watershed from these sources, and on measures to control this loading, the Commission may undertake separate rule making to require such measures it deems necessary from these sources to support the goals of the Jordan Reservoir Nutrient Strategy.

(9) ENFORCEMENT. Failure to meet requirements of Rules .0262, .0263, .0264, .0265, .0266, .0267, .0268, .0269, .0270, .0271 and .0272 of this Section may result in imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.1; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143 215.6C; 143-215.8B(b); 143B-282(c); 143B-282(d); S.L. 2005-1.

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

The following is the management strategy for controlling land-applied nutrients in the Jordan watershed, as prefaced in Rule .0262 of this Section.

(1) PURPOSE. The purpose of this Rule is to protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed by managing the application of nutrients, both inorganic fertilizer and organic nutrients, to lands in the Jordan watershed. This rule requires nutrient application in keeping with the most current state-recognized technical guidance on proper nutrient management in order to contribute to the loading reduction goals established in Rule .0262 of this Section. The requirements of this Rule are to be fully implemented within five years from the effective date.

(2) DEFINITIONS. The following definitions shall apply to terms used in this Rule.

(a) 'Applicator' means a person or the immediate supervisor who applies nutrients to the land including fertilizer, bio solids, and compost.

(b) 'Consultant' means a person who is hired to provide professional advice to another person.

(3) APPLICABILITY. This Rule shall apply to the following persons:

(a) Persons who own or manage cropland areas in the Jordan watershed for commercial purposes;

(b) Persons who own or manage commercial ornamental and floriculture areas and greenhouse production areas in the Jordan watershed;

(c) Persons who own or manage golf courses, grassed public recreational lands, grassed road or utility rights-of-way, or other institutional lands totaling at least five acres in size in the Jordan watershed; and

(d) Persons hired to apply nutrients to the lands described in Sub-Items (a) through (c) of this Item or to residential, commercial, industrial or institutional properties in the Jordan watershed, if the total area of the properties served exceeds 10 acres. This Rule shall not apply to residential, commercial, or industrial landowners who apply nutrients to their own property.

(e) Nutrient management consultants hired by persons listed in this Item to provide nutrient management advice for lands in the Jordan watershed.

(4) REQUIREMENTS. Persons to whom this Rule applies shall meet the following requirements:

(a) Any person subject to this rule who applies nutrients to, or who is hired to provide nutrient management advice for, land in the Jordan watershed shall either:

(i) Attend and complete nutrient management training pursuant to Item (5) of this Rule; or

(ii) Complete and properly implement a nutrient management plan for all lands to which they apply or manage the application of nutrients, or for which they provide nutrient management advice, pursuant to Item (6) of this Rule.

(b) Persons who hire an applicator to apply nutrients to the land that they own or manage in the Jordan watershed shall either:

(i) Ensure that the applicator they hire has attended and completed nutrient management training pursuant to Item (5) of this Rule; or

(ii) Ensure that the applicator they hire has completed and follows a nutrient management plan for the land that they own or manage pursuant to Item (6) of this Rule; or

(iii) Complete a nutrient management plan for the land that they own or manage pursuant to Item (6) of this Rule and ensure that the applicator they hire follows this plan.

(5) NUTRIENT MANAGEMENT TRAINING. Persons who choose to meet this Rule's requirements by completing nutrient management training shall meet the following requirements.

(a) Persons subject to this Rule as of its effective date shall complete training provided by either the Cooperative Extension Service or the Division and obtain a certificate from the training entity to that effect within five years from the effective date of this Rule. Training shall be sufficient to provide participants with an understanding of the value and importance of proper management of nitrogen and phosphorus, and the water quality impacts of poor nutrient management, and the ability to understand and properly carry out a nutrient management plan.

(b) Persons who become subject to this Rule after its effective date shall complete the training provided by either the Cooperative Extension Service or the Division and obtain a certificate to that effect from the training entity within one year from the date that they become subject verifying completion of training that addresses the elements identified in Sub-Item (5)(a) of this Rule.

(c) Persons who fail to obtain the nutrient management certificate within the required timeframes or who are found by the Director to have knowingly failed to follow nutrient management requirements as referenced in Sub-Items (6)(a)(i) through (6)(a)(iii) of this Rule shall develop and properly implement nutrient management plans pursuant to Item (6) of this Rule.

(d) Training certificates must be kept on-site or be produced within 24 hours of a request by the Division.

(6) NUTRIENT MANAGEMENT PLANS. Persons who choose to meet this Rule's requirements by completing and implementing a nutrient management plan shall meet the following requirements.

(a) Persons who are subject to this Rule as of its effective date and persons who become subject to this Rule after its effective date shall develop and implement a nutrient management plan that meets the following standards within five years of the effective date or within six months from the date that they become subject, whichever is later.

(i) Nutrient management plans for cropland shall meet the standards and specifications adopted by the NC Soil and Water Conservation Commission, including those found in 15A NCAC 06E .0104 and 15A NCAC 06H .0104, which are incorporated herein by reference, including any subsequent amendments and additions to such rules that are in place at the time that plans are approved by a technical specialist as required under Sub-Item (6)(b) of this Rule.

(ii) Nutrient management plans for turfgrass shall follow the North Carolina Cooperative Extension Service guidelines in "Water Quality and Professional Lawn Care" (NCCES publication number WQMM-155), "Water Quality and Home Lawn Care" (NCCES publication number WQMM-151), "Water Quality for Golf Course Superintendents and Professional Turf Managers" (NCCES publication number

AG-623). The above-referenced guidelines related to turfgrass are hereby incorporated by reference including any subsequent amendments and editions. Copies may be obtained from the Division of Water Quality, 512 North Salisbury Street, Raleigh, North Carolina 27604 at no cost. Nutrient management plans for turfgrass may also follow other guidance distributed by land-grant universities for turfgrass management as long as it is equivalent to or more stringent than the above-listed guidelines.

(iii) Nutrient management plans for nursery crops and greenhouse production shall follow the Nutrient Management section of the Southern Nurserymen's Association guidelines promulgated in "Best Management Practices Guide For Producing Container-Grown Plants". Copies may be obtained from the Southern Nurserymen's Association, 1000 Johnson Ferry Road, Suite E-130, Marietta, GA 30068-2100 at a cost of thirty-five dollars ($35.00). The materials related to nutrient management plans for nursery crops and greenhouse production are hereby incorporated by reference including any subsequent amendments and editions. Copies are available for inspection at the Department of Environment and Natural Resources Library, 512 North Salisbury Street, Raleigh, North Carolina 27604. Nutrient management plans for nursery crops and greenhouse production may also follow other guidance distributed by land-grant universities for such production as long as it is equivalent or more stringent than the above-listed guidelines.

(b) The person who writes the nutrient management plan shall have the plan approved in writing by an appropriate technical specialist as follows:

(i) Nutrient management plans for cropland using either inorganic or organic nutrients shall be approved by a technical specialist designated pursuant to the process and criteria specified in rules adopted by the Soil and Water Conservation Commission for nutrient management planning, including 15A NCAC 06H .0104, excepting Sub-Item (a)(2) of that Rule.

(ii) Nutrient management plans for turfgrass, nursery crops and greenhouse production shall be approved by a technical specialist designated by the Soil and Water Conservation Commission pursuant to the process and criteria specified in 15A NCAC 06H .0104 excepting Sub-Item (a)(2) of that Rule. If the Soil and Water Conservation Commission does not designate such technical specialists, then the Environmental Management Commission shall do so using the same process and criteria.

(c) Persons with approved waste utilization plans that are required under state or federal animal waste regulations are deemed in compliance with this Rule as long as they are compliant with their approved waste utilization plans.

(d) Nutrient management plans and supporting documents must be kept on-site or be produced within 24 hours of a request by the Division.

(7) COMPLIANCE. Persons who fail to comply with this Rule are subject to enforcement measures authorized in G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d); 143-215.8B(b); 143B-282(c); 143B-282(d); S.L. 2005-190.

15A NCAC 02B .0264 JORDAN WATER SUPPLY NUTRIENT STRATEGY: AGRICULTURE

This Rule sets forth a process by which agricultural operations in the Jordan watershed will collectively limit their nitrogen and phosphorus loading to the Jordan Reservoir, as prefaced in Rule 15A NCAC 02B .0262. This process is as follows:

(1) PURPOSE. The purposes of this Rule are to achieve and maintain the percentage reduction goals defined in 15A NCAC 02B .0262 for the collective agricultural loading of nitrogen and phosphorus from their respective 1997-2001 baseline levels, to the extent that best available accounting practices will allow. This Rule aims to achieve the initial goals set out in Rule 15A NCAC 02B .0262 within five to eight years. Additionally this Rule will protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed.

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

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

(4) APPLICABILITY. This Rule shall apply to all persons engaging in agricultural operations in the Jordan watershed, including those related to crops, horticulture, livestock, and poultry. This Rule applies to livestock and poultry operations above the size threshold in this Item in addition to requirements for animal operations set forth in general permits issued pursuant to G.S. 143-215.10C. This Rule does not require specific actions by any individual person or operation if the county or counties in which they conduct operations can otherwise achieve their initial nutrient reduction targets, in the manner described in Item (5) of this Rule, within five years of the effective date of this Rule. For the purposes of this Rule, agricultural operations are activities that relate to any of the following pursuits:

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

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

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

(i) 5 or more horses;
(ii) 20 or more cattle;
(iii) 150 or more swine;
(iv) 120 or more sheep;
(v) 130 or more goats;
(vi) 650 or more turkeys;
(vii) 3,500 or more chickens; or
(viii) Any single species or combination of species of livestock or poultry that exceeds 20,000 pounds of live weight at any time.

(5) METHOD FOR RULE IMPLEMENTATION. This Rule shall be implemented initially by a Watershed Oversight Committee and, if needed, through a cooperative effort between the Watershed Oversight Committee and Local Advisory Committees in each county or subwatershed. The membership, roles and responsibilities of these committees are set forth in Items (8) and (9) of this Rule. Committees' activities shall be guided by the following constraints:

(a) The Commission shall determine whether agricultural operations have achieved the collective nitrogen goals within two years of rule effective date based on input from the Watershed Oversight Committee, which shall use the accounting process described in Items (8) and (9) of this Rule. Should the Commission determine that a nitrogen goal has not been achieved within two years, the

Commission shall require the formation of Local Advisory Committees in that subwatershed to further progress toward the goal or consider alternative recommendations from the Watershed Oversight Committee on a management strategy for the subwatershed. The Commission shall subsequently determine whether each Local Advisory Committee or the subwatershed as a whole has achieved its nitrogen reduction goal within five years of the effective date of this Rule. Should the Commission determine that a Local Advisory Committee or subwatershed has not achieved its goal within five years, then the Commission shall require additional best management practice (BMP) implementation or other nutrient-reducing measures as needed to ensure that the goal is met within eight years of the effective date of this Rule. The Commission shall review compliance with the phosphorus goals within five years of the effective date and shall require additional BMP implementation or other nutrient-reducing measures within any subwatershed as needed to meet its goal within an additional three years from that date.

(b) Should a committee not form nor follow through on its responsibilities such that a local strategy is not implemented in keeping with Item (9) of this Rule, the Commission shall require all persons subject to this Rule in the affected area to implement BMPs as set forth in Item (7) of this Rule.

(6) OPTIONS FOR MEETING RULE REQUIREMENTS. If agricultural operations do not collectively meet the nitrogen reduction goals within two years as determined under Sub-Item (5)(a) of this Rule, persons subject to this Rule shall register their operations with their Local Advisory Committee according to the requirements of Item (9) of this Rule within three years of the effective date of this Rule. Such persons may elect to implement any Best Management Practices, as set forth in Item (7) of this Rule, they choose that are recognized by the Watershed Oversight Committee as nitrogen-reducing or phosphorus-reducing BMPs within five years of the effective date of this Rule. Persons who have implemented standard BMPs meeting the requirements of Item (7) if this Rule on all lands under their control within five years of the effective date of this Rule shall not be subject to any additional requirements that may be placed on persons under Item (4) of this Rule.

(7) STANDARD BEST MANAGEMENT PRACTICES (BMPs). Standard BMPs shall be individual BMPs or combinations of BMPs that, when implemented to treat all lands under a producer's control, achieve a sufficient level of farm stewardship relative to nutrient loss so as to merit individual compliance with this Rule. Implementation may have occurred at any time before, during, or after the baseline period, and individual compliance shall be contingent on the continued implementation and maintenance of such practices. Producers who implement additional practices beyond these requirements may offer any nitrogen export reduction credit attributed to the additional practices to parties subject to other rules under the Jordan nutrient strategy, subject to approval by the WOC under Sub-Item (8)(b). Standard BMPs shall be established for the purposes of this Rule as either of the following:

(a) Any of the following BMPs and BMP combinations. Technical specifications for these BMPs are those approved by the Soil and Water Conservation Commission for the Tar-Pamlico agriculture rule.

(i) Field border and nutrient management;

(ii) Conservation cover and nutrient management;

(iii) Riparian herbaceous cover and nutrient management;

(iv) (20-foot) Forested buffer strip and nutrient management; and

(v) Combined forested and herbaceous buffer strip.

(b) Any additional standard BMPs approved by the Watershed Oversight Committee for the Jordan watershed based on their nutrient reduction efficiencies and using design criteria for nitrogen and phosphorus reducing BMPs as described in rules adopted by the Soil and Water Conservation Commission, including 15A NCAC 06E .0104 and 15A NCAC 06F .0104.

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

(a) MEMBERSHIP. The Director shall be responsible for forming a Watershed Oversight Committee within two months of the effective date of this Rule. Until such time as the Commission determines that long-term maintenance of the nutrient loads is assured, the Director shall either reappoint members or replace members at least every five years. The Director shall solicit nominations for membership on this Committee to represent each of the following interests, and shall appoint one nominee to represent each interest. The Director may appoint a replacement at any time for an interest in Sub-Items (8)(a)(vi) through (8)(a)(x) of this Rule upon request of representatives of that interest:

(i) Division of Soil and Water Conservation;

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

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

(iv) North Carolina Cooperative Extension Service;

(v) Division of Water Quality;

(vi) Environmental interests;

(vii) Watershed farming interests;

(viii) Pasture-based livestock interests;

(ix) Cropland farming interests; and

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

(b) ROLE. The Watershed Oversight Committee shall:

(i) Develop tracking and accounting methodologies pursuant to Sub-Item (8)(c)(i) through (8)(c)(vii) of this Rule. Final methodologies for nitrogen and phosphorus shall be submitted to the Water Quality Committee of the Commission for approval within one year after the effective date of this Rule.

(ii) Identify and implement future refinements to the accounting methodologies as needed to reflect advances in scientific understanding, including establishment or refinement of nutrient reduction efficiencies for BMPs.

(iii) Within two years after the effective date of this Rule, collect data needed to conduct initial nutrient loss accounting for the baseline period and the most current year feasible, perform this accounting, and determine the extent to which agricultural operations have achieved the nitrogen loss goal and phosphorus loss trend indicators for each subwatershed. Also evaluate the ability of producers to achieve these goals within five years of the effective date, and develop recommendations as needed for presentation to the Commission on potential alternatives. Present findings to the Commission.

(iv) Review, approve, and summarize local nutrient strategies if required pursuant to Sub-Items (5)(a) and (9)(c) of this Rule. Present these strategies to the Commission in an annual report.

(v) Establish requirements for, review, approve and summarize local nitrogen and phosphorus loss annual reports as described under Sub-Item (9)(e) of this Rule, and present these reports to the Commission annually, until such time as the Commission determines that annual reports are no longer needed to assure long-term maintenance of the nutrient goals.

(vi) Approve standard BMPs as described in Sub-Item (7)(b).

(vii) Determine the eligibility of practices implemented by individual producers for nitrogen export reduction credit, available to parties subject to other rules within the Jordan nutrient strategy, pursuant to Sub-Item (7) of this Rule. Quantify the nitrogen credit available from such practices. Approve eligible trades, and ensure that they are accounted for and tracked separately from nitrogen compliance accounting for this Rule.

(c) ACCOUNTING METHODOLOGIES. Success in meeting this Rule's purpose will be gauged by estimating percentage changes in nitrogen loss from agricultural lands in the watershed and by evaluating broader trends in indicators of phosphorus loss from agricultural lands in the watershed. The Watershed Oversight Committee shall develop accounting methodologies that meet the following requirements:

(i) The nitrogen methodology shall quantify baseline and annual total nitrogen losses from agricultural operations in each county, each subwatershed, and for the entire watershed.

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

(iii) The nitrogen methodology shall include a means of estimating incremental nitrogen loss reductions from actual BMP implementation and of evaluating progress toward and maintenance of the nutrient goals from changes in BMP implementation, fertilization, individual crop acres and agricultural land use acres.

(iv) The nitrogen and phosphorus methodologies shall be refined as research and technical advances allow.

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

(vi) Phosphorus accounting may also include a scientifically valid, survey-based sampling of farms in the watershed for the purpose of conducting field-scale phosphorus loss assessments and extrapolating phosphorus losses for the watershed as accurately as possible for the baseline period and at periodic intervals until such time as the Commission determines that such evaluations are no longer needed to assure long-term maintenance of phosphorus loss goals.

(vii) Aspects of pasture-based livestock operations that potentially affect nutrient loss and are not captured by the accounting methods described above shall be accounted for in annual reporting by quantifying changes in the extent of livestock-related nutrient controlling BMPs. Progress may be judged based on percent change in the extent of implementation relative to subwatershed percentage goals identified in Rule .0262 of this Section.

(9) LOCAL ADVISORY COMMITTEES. If deemed necessary two years after the effective date as determined in Item (5) of this Rule, Local Advisory Committees shall be formed within two years and three months of the

effective date of this rule, and shall have the following membership, roles, and responsibilities:

(a) MEMBERSHIP. A Local Advisory Committee shall be appointed as provided in this Item for each county within the Jordan watershed. It shall terminate upon a finding by the Environmental Management Commission that the long-term maintenance of nutrient loads in the Jordan watershed is assured. Each Local Advisory Committee shall consist of:

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

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

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

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

(v) One local representative of the North Carolina Division of Soil and Water Conservation; and

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

(b) APPOINTMENT OF MEMBERS. The Director of the Division of Water Quality and the Director of the Division of Soil and Water Conservation of the Department of Environment and Natural Resources shall jointly appoint members described in Sub-Items (9)(a)(i), (9)(a)(ii), (9)(a)(iv), and (9)(a)(v) of this Rule. The Director of the Division of Water Quality, with recommendations from the Director of the Division of Soil and Water Conservation and the Commissioner of Agriculture, shall appoint the members described in Sub-Items (9)(a)(iii) and (9)(a)(vi) of this Rule from persons nominated by nongovernmental organizations whose members produce or manage agricultural commodities in each county or watershed. Members of the Local Advisory Committees shall serve at the pleasure of their appointing authority.

(c) ROLE. The Local Advisory Committees shall:

(i) Contingent on the two-year determination described in Sub-Item (5)(a) of this Rule, conduct a registration process for persons subject to this Rule. This registration process shall be completed within 36 months of the effective date of this Rule. The registration process shall request the type and acreage of agricultural operations. It shall provide persons with information on requirements and options under this Rule, and on available technical assistance and cost share options;

(ii) Contingent on the two-year determination described in Sub-Item (5)(a) of this Rule, develop local nutrient control strategies for agricultural operations, pursuant to Sub-Item (9)(d) of this Rule, to meet the nitrogen and phosphorus goals assigned by the Watershed Oversight Committee. The strategy shall be submitted to the Watershed Oversight Committee no later than 34 months after the effective date of this Rule in order to be included in the third annual report to the Commission;

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

(iv) Submit annual reports to the Watershed Oversight Committee, pursuant to Sub-Item (9)(e) of this Rule, annually until such time as the Commission determines that annual reports are no longer needed to assure long-term maintenance of the nutrient goals.

(d) LOCAL NUTRIENT CONTROL STRATEGIES. Contingent on the two-year determination described in Sub-Item (5)(a) of this Rule, Local Advisory Committees shall develop county or watershed nutrient control strategies that meet the following requirements. If a Local Advisory Committee fails to submit a nutrient control strategy required in Sub-Item (9)(c)(ii) of this Rule, the Commission may develop one based on the accounting methodology that it approves pursuant to Sub-Item (8)(b)(i) of this Rule.

(i) Local nutrient control strategies shall be designed to achieve the required nitrogen loss reduction goals and qualitative trends in indicators of agricultural phosphorus loss within five years after the effective date of this Rule, and to maintain those reductions in perpetuity or until such time as this Rule is revised to modify this requirement.

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

(e) ANNUAL REPORTS. The Local Advisory Committees shall be responsible for submitting annual reports for their counties or watersheds. Annual reports shall be submitted to the Watershed Oversight Committee annually until such time as the Commission determines that annual reports are no longer needed to assure long-term maintenance of the nutrient goals. The Watershed Oversight Committee shall determine reporting requirements to meet these objectives. Those requirements may include information on BMPs implemented by individual farms, proper BMP operation and maintenance, BMPs discontinued, changes in agricultural land use or activity, and resultant net nitrogen loss and phosphorus trend indicator changes.

Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B(b); 143B-282(c); 143B-282(d); S.L. 2001-355; S.L. 2005-190.

15A NCAC 02B .0265 JORDAN WATER SUPPLY NUTRIENT STRATEGY: STORMWATER MANAGEMENT FOR NEW DEVELOPMENT

The following is the stormwater strategy for new development activities within the Jordan watershed, as prefaced in 15A NCAC 02B .0262:

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

(a) To achieve and maintain the nitrogen and phosphorus loading goals established for Jordan Reservoir in 15A NCAC 02B .0262 from lands in the Jordan watershed on which new development occurs. New development is development that occurs subsequent to the effective date of, and is subject to, local stormwater management programs established under this Rule;

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

(c) To protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed from the potential impacts of new development.

(2) APPLICABILITY. This Rule shall apply to municipalities and counties in the Jordan watershed as identified in 15A NCAC 02B .0262.

(3) REQUIREMENTS. All local governments subject to this Rule shall develop stormwater management programs for submission to and approval by the Commission incorporating the following minimum standards:

(a) An approved stormwater management plan shall be required for all proposed new development within their jurisdictions disturbing one acre or more for single family and duplex residential property and recreational facilities, and one-half

acre or more for commercial, industrial, institutional, or multifamily residential property. These stormwater plans shall not be approved by the subject local governments unless the following criteria are met:

(i) Nitrogen and phosphorus loads contributed by the proposed new development activity shall not exceed certain unit-area mass loading rates. These loading rates shall be calculated as the percentage reduction goals established in 15A NCAC 02B .0262 for the subwatershed or subwatersheds in which the development occurs, applied to area-weighted average loading rates of developable lands in the same subwatershed or subwatersheds. These area-weighted average loading rates shall be derived from land use and loading data representative of the baseline period defined in 15A NCAC 02B .0262. Initial values for nitrogen and phosphorus loading rate targets respectively in each subwatershed shall be the following, expressed in units of pounds per acre per year: 2.2 and 0.82 in the Upper New Hope; 4.4 and 0.78 in the Lower New Hope; and 3.8 and 1.43 in the Haw. The Division may adjust these initial values based on improved land use and loading data or based on modifications to the strategy reduction goals in Item (7) of 15A NCAC 02B .0262. The developer shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in Sub-Item (4)(a) or other similar method acceptable to the Division.

(ii) Proposed new development in any water supply watershed in the Jordan 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, and 10/70 provisions described in Sub-Items (3)(b)(i) and (3)(b)(ii) of the applicable Rule among 15A NCAC 02B .0214 through .0216;

(iii) Stormwater systems shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. The treatment volume shall be drawn down no faster than 48 hours and no slower than 120 hours. Treatment systems shall achieve an 85 percent average annual removal rate for Total Suspended Solids. 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;

(iv) Proposed new development that would replace or expand structures or improvements that existed as of December 2001, the end of the baseline period, and that would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high-density requirements except to the extent that it shall provide at least equal stormwater control to the

previous development. Proposed new development that would replace or expand existing structures or improvements and would result in a net increase in built-upon area shall have the option to either achieve at least the percentage loading reduction goals stated in 15A NCAC 02B .0262 as applied to nitrogen and phosphorus loading from the previous development for the entire project site, or to meet the loading rate targets described in Sub-Item (3)(a)(i). These requirements shall supersede those identified in 15A NCAC 02B .0104(q);

(v) Proposed new development shall comply with the riparian buffer protection requirements of 15A NCAC 02B .0267 and .0268; and

(vi) Developers shall have the option of partially offsetting their nitrogen and phosphorus loads by funding offsite management measures. These offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with Sub-Item (3)(a)(i) of this Rule. Developers may utilize the offset option provided in 15A NCAC 02B .0240 for this purpose, contingent upon acceptance of their offset proposals by the NC Ecosystem Enhancement Program. Alternatively, developers may use an offset option provided by the local government in which the development activity occurs, provided that the local government has received prior approval from the Division for the offsetting activity pursuant to 15A NCAC 02B .0269. Before using off-site offset options, the development shall meet any requirements for engineered stormwater controls described in Sub-Item (3)(a)(ii) of this Rule and under NPDES Phase II regulations, and shall attain a maximum nitrogen loading rate of four pounds/acre/year for single-family, detached and duplex residential development and eight pounds/acre/year for other development, including multi-family residential, commercial and industrial.

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

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

(d) The following requirements in water supply Rule 15A NCAC 02B .0104 shall apply to new development throughout Jordan watershed:

(i) Requirements in Paragraph (f) for local governments to assume ultimate responsibility for operation and maintenance of high-density stormwater controls, to enforce compliance, to collect fees, and other measures;

(ii) Variance procedures in Paragraph (r);

(iii) Assumption of local programs by the Commission in Paragraph (x);

(iv) Delegation of Commission authorities to the Director in Paragraph (aa); and

(v) Other development-related requirements in 15A NCAC 02B .0104, unless expressly modified by requirements in this Rule, shall also apply throughout Jordan watershed.

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

(a) Within 12 months after the effective date of this Rule, the Division shall submit a model local stormwater

program, in conjunction with similar requirements in 15A NCAC 02B .0266, that embodies the criteria described in Item (3) of this Rule to the Commission for approval. The model program shall include a tool that will allow developers to account for nutrient loading from development lands and loading changes due to BMP implementation to meet the requirements of Item (3) of this Rule. The Division shall work in cooperation with subject local governments and other watershed interests in developing this model program;

(b) Within six months after the Commission's approval of the model local stormwater program, subject local governments shall submit stormwater management programs, in conjunction with similar requirements in 15A NCAC 02B .0266, to the Division for approval. These local programs shall meet or exceed the requirements in Item (3) of this Rule and minimum criteria established in the model;

(c) Within 15 months after the Commission's approval of the model local stormwater program, the Division shall request the Commission's approval of the local stormwater management programs;

(d) Within 18 months after the Commission's approval of the model local stormwater program, or upon the Division's first renewal of a local government's National Pollutant Discharge Elimination System (NPDES) stormwater permit, whichever occurs later, subject local governments shall complete adoption of and implement their local stormwater management programs; and

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

(5) RELATIONSHIP TO OTHER REQUIREMENTS. Local governments shall have the following options with regard to satisfying the requirements of other rules in conjunction with this Rule:

(a) A local government may in its program submittal under Sub-Item (4)(b) of this Rule request that the Division accept the local government's implementation of another stormwater program or programs, such as NPDES municipal stormwater requirements, as satisfying one or more of the requirements set forth in Item (3) of this Rule. The Division will provide determination on acceptability of any such alternatives prior to requesting Commission approval of local programs as required in Sub-Item (4)(c) of this Rule. The local government shall include in its program submittal technical information demonstrating the adequacy of the alternative requirements. Where requirements of this Rule exceed those in an NPDES permit, a local government shall meet the requirements of this Rule upon the first renewal of its NPDES permit.

(b) Local governments that are required to reduce nutrient loading from existing development under 15A NCAC 02B .0266 may require new development to achieve load reductions in excess of those required to meet the unit-area mass loading rate targets described in this Rule and credit the additional reductions toward the loading goals for existing developed areas.

Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-282(d); 143-215.8B(b); 143B-282(c); 143B-282(d); S.L. 2005-190.

15A NCAC 02B .0266 JORDAN WATER SUPPLY NUTRIENT STRATEGY: STORMWATER MANAGEMENT FOR EXISTING DEVELOPMENT

This Rule establishes an adaptive approach by which municipalities and counties are to contribute to achieving the nonpoint source loading goals of the Jordan nutrient strategy by reducing or otherwise offsetting nutrient contributions from existing developed lands. It provides local governments three years to conduct feasibility studies from which they shall propose the pace and nature of implementation actions in plans to the Division, which they shall initiate within four years after the effective date of this Rule. The following is the watershed stormwater strategy for existing development in the Jordan watershed, as prefaced in 15A NCAC 02B .0262:

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

(a) To contribute to achieving and maintaining the nonpoint source nitrogen and phosphorus percentage reduction goals established for Jordan Reservoir in 15A NCAC 02B .0262 relative to the baseline period defined in that Rule by reducing loading from existing development in the Jordan watershed. Existing development is development that exists as of the effective date of local stormwater management programs established under 15A NCAC 02B .0265, or development that occurs after the effective date of those programs but is not subject to the requirements of those programs, such as vested projects and redevelopment that does not yield a net increase in built-upon area; and

(b) To protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed.

(2) APPLICABILITY. This Rule shall apply to municipalities and counties in the Jordan watershed as identified in 15A NCAC 02B .0262.

(3) REQUIREMENTS. All local governments subject to this Rule shall develop stormwater management programs for submission to and approval by the Commission according to the following minimum standards:

(a) A program for achieving sustained nutrient loading reductions from existing development. This program shall meet the following criteria:

(i) The long-term objective of this program shall be for a local government to achieve the percentage nutrient loading reduction goals in Item (3) of 15A NCAC 02B .0262 relative to annual loading representative of the baseline period defined in that Rule and as applied to existing development lands under the local government's land use authority within each of the three subwatersheds, defined in that rule, that falls within its jurisdiction. In addressing this long-term objective, a local government shall include estimates of, and plans for offsetting, nutrient loading increases from lands developed subsequent to the baseline period but prior to implementation of new development programs. Should percentage reduction goals be adjusted pursuant to Item (7) of 15A NCAC 02B .0262, then the annual loading goals established in this Sub-Item shall be adjusted accordingly. A local government may seek supplemental funding for implementation of load-reducing activities through grant sources such as the North Carolina Clean Water Management Trust Fund, the North Carolina Clean Water Act Section 319 Grant Program, or other funding programs for nonpoint sources;

(ii) The results of a feasibility study to determine the extent to which the loading goals referenced in this Rule may be achieved from existing development within a local government's jurisdiction through load reducing activities. The local government shall develop a proposed implementation rate and compliance schedule for load reducing activities. This schedule shall provide for reasonable and steady progress toward reduction goals throughout the proposed compliance period;

(iii) The program shall identify specific load-reducing practices implemented to date subsequent to the baseline period and for which the local government is seeking credit. It shall estimate load reductions for these practices using methods provided for in Sub-Item (4)(a), and their anticipated duration;

(iv) The program shall identify the types of activities the local government intends to implement and types of existing development

affected, relative proportions or a prioritization of practices, and the relative magnitude of reductions it expects to achieve from each. A local government may credit any nitrogen or phosphorus load reductions in excess of those required by other rules in this Chapter. The program shall identify the duration of anticipated loading reductions, and should seek activities that provide sustained, long-term reductions. Potential load-reducing activities may include but would not be limited to stormwater activities such as street sweeping, removal of existing built-upon area, retrofitting of existing development with engineered best management practices (BMPs), requiring treatment of runoff in redevelopment projects, requiring over-treatment of runoff in new development projects, and adoption of fertilizer management ordinances or fertilizer education programs, and wastewater activities such as overtreatment at publicly owned treatment works (POTW), collection system improvements, removal of illegal discharges, and connection of onsite wastewater systems and discharging sand filter systems to central sewer;

(v) The program shall identify anticipated funding mechanisms or sources and discuss steps taken or planned to secure such funding; and

(vi) A municipality shall have the option of working with the county or counties in which it falls, or with another municipality or municipalities within the same subwatershed, to jointly meet the loading targets from all lands within their combined jurisdictions within a subwatershed.

(b) A program to ensure maintenance of load reductions achieved as a result of the provisions in Sub-Item (3)(a) of this Rule for the life of the development;

(c) A public education program to inform citizens, business, and industry of how to reduce nutrient pollution, including education on home fertilization practices;

(d) A mapping program that includes major components of the municipal separate storm sewer system, waters of the State, land use types, and location of sanitary sewers; and

(e) A program to identify and remove illegal discharges.

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

(a) Within 12 months after the effective date of this Rule, the Division shall submit a model local stormwater program, in conjunction with similar requirements in 15A NCAC 02B .0265, that embodies the criteria described in Item (3) of this Rule, including methods to quantify loading reduction requirements and loading reductions from various activities, to the Commission for approval. The Division shall work in cooperation with subject local governments and other watershed interests in developing this model program;

(b) Within six months after the Commission's approval of the model local stormwater program, subject local governments shall submit stormwater management programs, in conjunction with similar requirements in 15A NCAC 02B .0265, to the Division for approval. Except for the requirements in Sub-Item (3)(a) of this Rule, local programs shall address and meet or exceed the requirements in Item (3) of this Rule and ensuing minimum criteria established in the model;

(c) Within 15 months of the Commission's approval of the model local stormwater program, the Division shall request the Commission's approval of the local stormwater management programs addressing the requirements of Item

(3) of this Rule except those in Sub-Item (3)(a);

(d) Within 18 months of the Commission's approval of the model local stormwater program, or upon the Division's first renewal of a local government's NPDES stormwater permit, whichever occurs later, subject local governments shall complete adoption of and begin implementation of local stormwater management programs addressing the requirements of Item (3) of this Rule except those in Sub-Item (3)(a); and

(e) Within 36 months after the effective date of this Rule, subject local governments shall submit loading reduction programs addressing Sub-Item (3)(a) of this Rule, including the following regarding Sub-Item (3)(a)(i) of this Rule:

(i) The results of feasibility studies that determine the extent to which the loading goals referenced in this Rule may be achieved from existing development lands within their jurisdictions.

(ii) A proposed implementation schedule for load reduction projects.

(f) Within 46 months of the effective date of this Rule, the Division shall request the Commission's approval of local load reduction programs submitted under Sub-Item (4)(e) of this Rule. The Commission shall either approve the programs or require changes. Should the Commission require changes, the Division shall address those changes and seek Commission approval at the earliest feasible date subsequent to the original request.

(g) Within 48 months of the effective date of this Rule, or within two months following Commission approval of a program, whichever is later, subject local governments shall complete adoption of and begin to implement local load reduction programs on the timeframe established under the feasibility study.

(h) Upon implementation, local governments shall provide annual reports to the Division documenting their progress in implementing the requirements of Item (3) of this Rule, including changes to nutrient loading due to implementation of Sub-Item (3)(a) of this Rule.

(5) RELATIONSHIP TO OTHER REQUIREMENTS. A local government may in its program submittal under Sub-Item (4)(b) of this Rule request that the Division accept the local government's implementation of another stormwater program or programs, such as NPDES municipal stormwater requirements, as satisfying one or more of the requirements set forth in Item (3) of this Rule. The Division will provide determination on acceptability of any such alternatives prior to requesting Commission approval of local programs as required in Sub-Items (3)(a) and (3)(b) of this Rule. The local government shall include in its program submittal technical information demonstrating the adequacy of the alternative requirements. Where requirements of this Rule exceed those in a NPDES permit, a local government shall meet the requirements of this Rule upon the first renewal of its NPDES permit.

Authority G.S. 143-214.1; 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-282(d); 143-215.8B(b); 143B-282(c); S.L. 2005-190.

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGY: PROTECTION OF EXISTING RIPARIAN BUFFERS

Protection of the nutrient removal and other water quality services provided by riparian buffers throughout the watershed is an important element of the overall Jordan water supply nutrient strategy. The following is the strategy for riparian buffer protection and maintenance in the Jordan watershed, as prefaced in 15A NCAC 02B .0262:

(1) PURPOSE. The purposes of this Rule shall be for the local governments listed in 15A NCAC 02B .0262, and in certain cases stated in this Rule the Division, to protect and preserve existing riparian buffers throughout the Jordan watershed as generally described in Rule .0262 of this Section, in order to maintain their nutrient removal and stream protection functions. Additionally this Rule will help protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed. Local programs shall be established to meet or exceed the minimum requirements of this Rule. However, the Division shall assume responsibility for applying the requirements of this Rule to buffer activities by state and federal entities. The requirements of this Rule shall supersede all buffer requirements stated in 15A NCAC 02B .0214 through .0216 as applied to WS-II, WS-III, and WS-IV waters

in the Jordan watershed. Parties subject to this Rule may choose to implement more stringent rules, including the one-hundred foot buffer requirement set out in Sub-Item (3)(b)(i) of 15A NCAC 02B .0214 through .0216 for high-density developments.

(2) DEFINITIONS. For the purpose of this Rule, these terms shall be defined as follows:

(a) 'Access Trails' means pedestrian trails constructed of pervious or impervious surfaces and related structures to access a surface water, including boardwalks, steps, rails, signage.

(b) 'Archaeological Activities' means activities conducted by a Registered Professional Archaeologist (RPA).

(c) 'Airport Facilities' means all properties, facilities, buildings, structures, and activities that satisfy or otherwise fall within the scope of one or more of the definition or uses of the words or phrases 'air navigation facility', 'airport', or 'airport protection privileges' under G.S. 63-1; the definition of 'aeronautical facilities' in G.S. 63-79(1); the phrase 'airport facilities' as used in G.S. 159-48(b)(1); the phrase 'aeronautical facilities' as defined in G.S. 159-81 and G.S. 159-97; and the phrase 'airport facilities and improvements' as used in Article V, Section 13, of the North Carolina Constitution, which shall include, without limitation, any and all of the following: airports, airport maintenance facilities, clear zones, drainage ditches, fields, hangars, landing lighting, airport and airport-related offices, parking facilities, related navigational and signal systems, runways, stormwater outfalls, terminals, terminal shops, and all appurtenant areas used or suitable for airport buildings or other airport facilities, and all appurtenant rights-of-way; restricted landing areas; any structures, mechanisms, lights, beacons, marks, communicating systems, or other instrumentalities or devices used or useful as an aid, or constituting an advantage or convenience to the safe taking off, navigation, and landing of aircraft, or the safe and efficient operation or maintenance of an airport or restricted landing area; easements through, or interests in, air space over land or water, interests in airport hazards outside the boundaries of airports or restricted landing areas, and other protection privileges, the acquisition or control of which is necessary to ensure safe approaches to the landing areas of airports and restricted landing areas, and the safe and efficient operation of thereof and any combination of any or all of such facilities. Notwithstanding the foregoing, the following shall not be included in the definition of 'airport facilities':

(i) Satellite parking facilities;

(ii) Retail and commercial development outside of the terminal area, such as rental car facilities; and

(iii) Other secondary development, such as hotels, industrial facilities, free-standing offices and other similar buildings, so long as these facilities are not directly associated with the operation of the airport, and are not operated by a unit of government or special governmental entity such as an airport authority.

'Bridge' - the term 'bridge' should be added to the list of definitions. The meaning of the word should be crafted in consultation with the DOT.

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

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

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

(g) 'Ephemeral (stormwater) stream' means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary

'Footprint' - this term should be added to the list of definitions. The meaning of the term should be established in consultation with the

source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.

(h) 'Forest plantation' means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site.

(i) 'Greenway / Hiking Trails' means pedestrian trails constructed of pervious and impervious surfaces and related structures including but not limited to boardwalks, steps, rails, and signage, and that generally run parallel to the shoreline.

(j) 'High Value Tree' means a tree that meets or exceeds the following standards: for pine species, 14-inch DBH or greater or 18-inch or greater stump diameter; and, for hardwoods and wetland species, 16-inch DBH or greater or 24-inch or greater stump diameter.

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

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

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

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

(o) 'Riparian buffer enhancement' is defined as the process of converting a non-forested riparian area, where woody vegetation is sparse (greater than or equal to 100 trees per acre but less than 200 trees per acre) to a forested riparian buffer area. The enhanced, forested riparian buffer area shall include at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at three years or 260 trees per acre five years, and diffuse flow through the riparian buffer shall be maintained.

(p) 'Riparian buffer restoration' is defined as the process of converting a non-forested riparian area, where woody vegetation is absent (less than 100 trees per acre) to a forested riparian buffer area. The restored, forested riparian buffer area shall include at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at three years or 260 trees per acre at five years, and diffuse flow through the riparian buffer shall be maintained.

(q) 'Shoreline stabilization' is the in-place stabilization of an eroding shoreline. Stabilization techniques which include "soft" methods or natural materials (such as root wads, or rock vanes) may be considered as part of a restoration design. However, stabilization techniques that consist primarily of "hard" engineering, such as concrete lined channels, rip rap, or gabions, while providing bank stabilization, shall not be considered stream restoration.

'Stormwater Management Facility' - this term should be added to the list of definitions. The meaning of the term should be established in consultation with the DOT.

(r) 'Stream restoration' is defined as the process of converting an unstable, altered or degraded stream corridor, including adjacent riparian zone and flood-prone areas to its natural or referenced, stable conditions considering recent and future watershed conditions. This process also includes restoring the geomorphic dimension, pattern, and profile as well as biological and chemical integrity, including transport of water and sediment produced by the stream's watershed in order to achieve dynamic equilibrium. 'Referenced' or 'referenced reach' means a stable stream that is in dynamic equilibrium with its valley and contributing watershed. A reference reach can be used to develop natural channel design criteria for stream restoration projects. 'Stream' means a body of concentrated flowing water in a natural low area or natural channel on the land surface.

(s) 'Stump diameter' means the diameter of a tree measured at six inches above the ground surface level.

(t) 'Surface waters' means all waters of the state as defined in G.S. 143-212 except underground waters.

(u) 'Temporary road' means a road constructed temporarily for equipment access to build or replace hydraulic conveyance structures such as bridges, culverts, or pipes or water dependent structures, or to maintain public traffic during construction and is restored within ~~six~~ months of initial disturbance.

(v) 'Tree' means a woody plant with a DBH equal to or exceeding five inches or a stump diameter exceeding six inches.

(3) APPLICABILITY. This Rule shall apply to all local governments in the Jordan watershed, as described in 15A NCAC 02B .0262. Local governments shall apply the requirements of this Rule throughout their jurisdictions within the Jordan watershed with the exception of state and federal entities. For buffer activities on lands of state and federal entities in the Jordan watershed, it shall be presumed that the Division shall apply the requirements of this Rule wherever local governments are referenced unless otherwise indicated.

(4) BUFFERS PROTECTED. All local governments subject to this Rule shall develop riparian buffer protection programs and ordinances for approval by the Commission, incorporating the minimum standards contained in this Section and the remainder of this Rule. This Rule shall apply to 50-foot wide riparian buffers directly adjacent to surface waters in the Jordan watershed (intermittent streams, perennial streams, lakes, reservoirs and ponds), excluding wetlands. Wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 02H .0506.

(a) A surface water shall be subject to this Rule if the feature is approximately shown on any of the following references, and shall not be subject if it does not appear on any of these references:

(i) The most recent, complete version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture;

(ii) The most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS); or

~~(iii) Other more accurate mapping approved by the Commission. More accurate maps approved by the Commission would replace the first two sources as the standard of reference for this Rule upon their approval.~~

This provision is ambiguous and inconsistent with buffer rules in other watersheds. Allowance for the use of other mapping sources should be established through a separate rule-making process.

(b) Where the specific initiation point of an intermittent stream is in question, parties subject to this rule shall use the latest version of the Division publication, Identification Methods for the Origins of Intermittent and Perennial Streams, available at http://h2o.enr.state.nc.us/ncwetlands/regcert.html, to establish that point.

Add 'twenty-four'.

(c) Riparian buffers protected by this Rule shall be measured pursuant to Item (7) of this Rule.

(d) Parties subject to this rule shall abide by all State rules and laws regarding waters of the state including but not limited to Section .0500 of Subchapter 02H, Section .1300 of Subchapter 02H, and Sections 401 and 404 of the Federal Water Pollution Control Act.

(e) A riparian buffer may be exempt from this Rule as described in Item (5) or (6) of this Rule.

(5) EXEMPTION BASED ON ON-SITE DETERMINATION. When a landowner or other affected party believes that the maps have inaccurately depicted surface waters, he or she shall consult the appropriate local government. Upon request, the local government shall make on-site determinations. Local governments may also accept the results of site assessments made by other parties who have successfully completed a Division training course and are sanctioned by the Division to make such determinations. Any disputes over on-site determinations shall be referred to the local Board of Adjustment or other local appeals process in writing. For state and federal entities, any disputes shall be referred to the Director in writing. A determination of the Director as to the accuracy or application of the maps is subject to review as provided in Articles 3 and 4 of G.S. 150B. Surface waters that appear on the maps shall not be subject to this Rule if an on-site determination shows that they fall into one of the following categories:

(a) Manmade ponds and lakes that are located outside natural drainage ways; and

(b) Ephemeral (stormwater) streams.

(6) EXEMPTION WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall not apply to portions of the riparian buffer where a use is existing and ongoing according to the following:

(a) A use shall be considered existing and ongoing if it was present within the riparian buffer as of the effective date of the local ordinance or local ordinances enforcing this Rule and has continued to exist since that time. For state and federal entities, a use shall be considered existing and ongoing if it was present within the riparian buffer as of the effective date of this Rule and has continued to exist since that time. Existing uses shall include agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems any of which involve either specific, periodic management of vegetation or displacement of vegetation by structures or regular activity. Only the portion of the riparian buffer that contains the footprint of the existing use is exempt from this Rule. Change of ownership through purchase or inheritance is not a change of use. Activities necessary to maintain uses are allowed provided that the site remains similarly vegetated, no impervious surface is added within 50 feet of the surface water where it did not previously exist as of the effective date of the local ordinance or local ordinances enforcing this Rule, and existing diffuse flow is maintained. Grading and revegetating Zone two is allowed provided that the health of the vegetation in Zone one is not compromised, the ground is stabilized and existing diffuse flow is maintained.

(b) A use shall be considered as existing if projects or proposed development are determined by the local government, or the Director for the cases involving state or federal entities, to meet at least one of the following criteria:

(i) Project requires a 401 Certification/404 Permit and these were issued prior to the effective date of the local ordinance or local ordinances enforcing this Rule, and prior to the effective date of this Rule for state and federal entities;

(ii) Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities, have begun construction or are under contract to begin construction and had received all required state permits and certifications prior to the effective date of the local ordinance or ordinances this Rule, and prior to the effective date of this Rule for state and federal entities;

(iii) Projects that are being reviewed through the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (published by the US Army Corps of Engineers and Federal

Highway Administration, 2003) or its immediate successor and that have reached agreement with DENR on avoidance and minimization by the effective date of the local ordinance or ordinances enforcing this Rule, and prior to the effective date of this Rule for state and federal entities;

(iv) Projects that are not required to be reviewed by the Clean Water Act Section 404/National Environmental Policy Act Merger 01 Process (published by the US Army Corps of Engineers and Federal Highway Administration, 2003) or its immediate successor if a Finding of No Significant Impact has been issued for the project and the project has the written approval of the local government prior to the effective date of the local ordinance or ordinances this Rule, or the written approval of the Division prior to the effective date of this Rule for state and federal entities;

(c) A project that can be documented to the local government, or the Director for the cases involving state or federal entities, as having vested rights that were established or recognized for that project under the common law or by G.S. 153A-344(b), 153A-344.1, 160A-385(b) or 160A-385.1 prior to the effective date of this Rule. This Rule does not confer or restrict a vested right established or recognized under common law or G.S. 153A-344(b), 153(A)-344.1, 160A-385(b), or 160A-385.1.

(d) This Rule shall apply at the time an existing use is changed to another use. Change of use shall involve the initiation of any activity not defined as existing and ongoing in either Sub-Item (6)(a), (6)(b), or (6)(c) of this Rule.

(7) ZONES OF THE RIPARIAN BUFFER. The protected riparian buffer shall have two zones as follows:

(a) Zone one shall consist of a vegetated area that is undisturbed except for uses provided for in Item (9) of this Rule. The location of Zone one shall be as follows:

(i) For intermittent and perennial streams, Zone one shall begin at the most landward limit of the top of the bank or the rooted herbaceous vegetation and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to a vertical line marking the edge of the top of the bank.

(ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone one shall begin at the most landward limit of the normal water level or the rooted herbaceous vegetation and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the surface water or rooted herbaceous vegetation.

(b) Zone two shall consist of a stable, vegetated area that is undisturbed except for uses provided for in Item (9) of this Rule. Grading and revegetating Zone two is allowed provided that the health of the vegetation in Zone one is not compromised. Zone two shall begin at the outer edge of Zone one and extend landward 20 feet as measured horizontally on a line perpendicular to the surface water. The combined width of Zones one and two shall be 50 feet on all sides of the surface water.

(8) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation. Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow at non-erosive velocities before the runoff enters Zone two of the riparian buffer. Corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies. No new stormwater conveyances are allowed through the buffers

except for stormwater management ponds provided for in Item (9) of this Rule.

(9) TABLE OF USES. The following chart sets out the uses and their designation under this Rule as exempt, allowable, or allowable with mitigation. All uses not designated as exempt, allowable, or allowable with mitigation are considered prohibited and may not proceed within the riparian buffer unless a variance is granted pursuant to Items (12), (13), or (14) of this Rule. The requirements for each category are given in Items (12), (13), and (14) of this Rule.

Use	Exempt	Allowable	Allowable with Mitigation
Access trails: Pedestrian access trails leading to the surface water, docks, fishing piers, boat ramps and other water dependent activities: • Pedestrian access trails that are restricted to the minimum width practicable and do not exceed 4 feet in width of buffer disturbance, and provided that installation and use does not result in removal of trees as defined in this Rule and no impervious surface is added to the riparian buffer • Pedestrian access trails that exceed 4 feet in width of buffer disturbance, the installation or use results in removal of trees as defined in this Rule or impervious surface is added to the riparian buffer	X	X	
Access for maintenance of modified natural streams: a grassed travel way on one side of the water body when less impacting alternatives are not practical		X	
Airport facilities: • Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer		X	X
Archaeological activities	X		
Bridges		X	
Canoe Access provided that installation and use does not result in removal of trees as defined in the Rule and no impervious surface is added to the buffer.	X		
Dam maintenance activities: • Dam maintenance activities that do not cause additional buffer disturbance beyond the footprint of the existing dam or those covered under the U.S. Army Corps of Engineers Nationwide Permit No. 3 • Dam maintenance activities that do cause additional buffer disturbance beyond the footprint of the existing dam or those not covered under the U.S. Army Corps of Engineers Nationwide Permit No.3	X	X	

Use	Exempt	Allowable	Allowable with Mitigation
Drainage ditches, roadside ditches and stormwater conveyances through riparian buffers: • Existing drainage ditches, roadside ditches, and stormwater conveyances provided that they are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies • Existing roadside drainage ditches that need to be realigned provided that no additional travel lanes are added and the minimum required roadway typical section is used based on traffic and safety considerations. • New drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control nutrients and attenuate flow before the conveyance discharges through the riparian buffer • New stormwater discharges to existing man-made conveyances (including, but not limited to, drainage ditches, roadside ditches, and stormwater conveyances) provided that the new stormwater discharge does not result in the need to alter the existing man-made conveyances • New stormwater discharges to existing man-made conveyances applicable to linear projects (including but not limited to, drainage ditches, roadside ditches, and stormwater conveyances) for which the new stormwater discharges result in the need to alter existing man-made conveyances. • New drainage ditches, roadside ditches and stormwater conveyances applicable to linear projects that do not provide a stormwater management facility due to topography constraints provided that other practicable BMPs have been employed.	X	X X X	X X
Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the new channel.	X		
Driveway crossings of streams and other surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2,500 square feet of riparian buffer • Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer	X	X X	X

Align Xs in columns with bulleted uses.

Use	Exempt	Allowable	Allowable with Mitigation
Fences: • Fences provided that disturbance is minimized and installation does not result in removal of trees as defined in this Rule • Fences provided that disturbance is minimized and installation results in removal of trees as defined in this Rule	X	X	
Forest harvesting - see Item (16) of this Rule			
Fertilizer application: • One-time fertilizer application to establish vegetation	X		
Grading and revegetation in Zone two only provided that diffuse flow and the health of existing vegetation in Zone one is not compromised and disturbed areas are stabilized	X		
Greenway / hiking trails		X	
Historic preservation	X		
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (7) and (8) of this Rule are established adjacent to the relocated channels • Mining activities that are not covered by the Mining Act OR where new riparian buffers that meet the requirements or Items (7) and (8) of this Rule are not established adjacent to the relocated channels • Wastewater or mining dewatering wells with approved NPDES permit	X	X	X
Non-electric utility lines: • Impacts other than perpendicular crossings in Zone two only[3] • Impacts other than perpendicular crossings in Zone one[3]		X	X
Non-electric utility line perpendicular crossings of streams and other surface waters subject to this Rule[3]: • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer	X	X X	X X

Use	Exempt	Allowable	Allowable with Mitigation
Overhead electric utility lines: • Impacts other than perpendicular crossings in Zone two only[3] • Impacts other than perpendicular crossings in Zone one [1,2,3]	X X		
Overhead electric utility line perpendicular crossings of streams and other surface waters subject to this Rule[3]: • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer [1] • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer [1, 2]	X	X	
Playground equipment: • Playground equipment on single family lots provided that installation and use does not result in removal of vegetation • Playground equipment installed on lands other than single-family lots or that requires removal of vegetation	X	X	
Ponds in natural drainage ways, excluding dry ponds: • New ponds provided that a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is NOT established adjacent to the pond		X	X
Protection of existing structures, facilities and stream banks when this requires additional disturbance of the riparian buffer or the stream channel		X	
Railroad impacts other than crossings of streams and other surface waters subject to this Rule.			X
Railroad crossings of streams and other surface waters subject to this Rule: • Railroad crossings that impact equal to or less than 40 linear feet of riparian buffer • Railroad crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X
Recreational and accessory structures such as decks, gazebos and sheds in Zone two, provided they are not prohibited under local water supply ordinance: • Total footprint less than or equal to 150 square feet per lot • Total footprint of more than 150 square feet per lot		X	X
Removal of previous fill or debris provided that diffuse flow is maintained and vegetation is restored	X		
Road impacts other than crossings of streams and other surface waters subject to this Rule			X

Stormwater BMPs should be prohibited in Zone One and Zone Two

Use	Exempt	Allowable	Allowable with Mitigation
Road crossings of streams and other surface waters subject to this Rule: • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X
Road relocation: Relocation of existing private access roads associated with public road projects where necessary for public safety: • Less than or equal to 2,500 square feet of buffer impact • Greater than 2,500 square feet of buffer impact		X	X
~~Stormwater BMPs:~~ • ~~Wet detention, bioretention, and constructed wetlands in Zone two if diffuse flow of discharge is provided into Zone one~~ • ~~Wet detention, bioretention, and constructed wetlands in Zone one~~		~~X~~	~~X~~
Scientific studies and stream gauging	X		
Streambank stabilization		X	
Temporary roads, provided that restoration activities, such as soil stabilization and revegetation, occur immediately after construction: • Less than or equal to 2,500 square feet of buffer disturbance • Greater than 2,500 square feet of buffer disturbance • Associated with linear projects	X	X X	
Temporary sediment and erosion control devices: • In Zone two only provided that the vegetation in Zone one is not compromised and that discharge is released as diffuse flow in accordance with Item (5) of this Rule • In Zones one and two to control impacts associated with uses approved by the local government or that have received a variance provided that sediment and erosion control for upland areas is addressed to the maximum extent practical outside the buffer • In-stream temporary erosion and sediment control measures for authorized work within a stream channel	X X	X	
Underground electric utility lines: • Impacts other than perpendicular crossings in Zone two only • Impacts other than perpendicular crossings in Zone one[4]	X X		

Use	Exempt	Allowable	Allowable with Mitigation
Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule: • Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer[3, 4] • Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer[3, 4]	X	X	
Vegetation management: • Emergency fire control measures provided that topography is restored • Mowing and harvesting of plant products in Zone two only • Planting vegetation to enhance the riparian buffer • Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised • Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life • Removal of individual trees which are dead, diseased or damaged. • Removal of poison ivy • Removal of understory nuisance vegetation as defined in: *Smith, Cherri L. 1998. Exotic Plant Guidelines. Dept. of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30*	X X X X X X X X X		
Vehicle access roads and boat ramps leading to the surface water, docks, fishing piers, and other water dependent activities: • Vehicular access roads and boat ramps to the surface water but not crossing the surface water that are restricted to the minimum width practicable not to exceed 10 feet in width • Vehicular access roads and boat ramps to the surface water but not crossing the surface water that are restricted to the minimum width practicable and exceed 10 feet in width		X	X
Water dependent structures: • Water dependent structures as defined in 15A NCAC 02B .0202 where installation and use do not result in disturbance to riparian buffers • Water dependent structures as defined in 15A NCAC 02B .0202 where installation and use result in disturbance to riparian buffers	X	X	
Water supply reservoirs: • New reservoirs provided that a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the reservoir • New reservoirs where a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is NOT established adjacent to the reservoir		X	X

It is recommended by the NCDOT that the NCDWQ add to the rules (i.e. Table of Uses) an exemption for hand clearing. This is often used as a minimization method for Clean Water Act Sections 404 and 401 as minimization (i.e. no grubbing or grading).

Use	Exempt	Allowable	Allowable with Mitigation
Water wells • Single family residential water wells • All other water wells	X	X	
Wetland, stream and buffer restoration that results in impacts to the riparian buffers: • Wetland, stream and buffer restoration that requires DWQ approval for the use of a 401 Water Quality Certification • Wetland, stream and buffer restoration that does not require DWQ approval for the use of a 401 Water Quality Certification	X	X	
Wildlife passage		X	

[1] Provided that, in Zone one, all of the following BMPs for overhead utility lines are used. If all of these BMPs are not used, then the overhead utility lines shall require a no practical alternative evaluation by the local government, or the Director for the cases involving state or federal entities, as defined in Item (11) of this Rule.

- A minimum zone of 10 feet wide immediately adjacent to the water body shall be managed such that only vegetation that poses a hazard or has the potential to grow tall enough to interfere with the line is removed.
- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain where trees are cut.
- Riprap shall not be used unless it is necessary to stabilize a tower.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

[2] Provided that poles or towers shall not be installed within 10 feet of a water body unless the local government, or the Director for the cases involving state or federal entities, completes a no practical alternative evaluation as defined in Item (11) of this Rule.

[3] Perpendicular crossings are those that intersect the surface water at an angle between 75° and 105°.

[4] Provided that, in Zone one, all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by the local government, or the Director for the cases involving state or federal entities, as defined in Item (11) of this Rule.

- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain, except in the trench, where trees are cut.
- Underground cables shall be installed by vibratory plow or trenching.
- The trench shall be backfilled with the excavated soil material immediately following cable installation.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

(10) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, allowable,

and allowable with mitigation in Item (9) of this Rule shall have the following requirements:

(a) EXEMPT. Uses designated as exempt are allowed within the riparian buffer. Exempt uses shall be designed, constructed and maintained to minimize soil disturbance and to provide the maximum water quality protection practicable, including construction, monitoring, and maintenance activities,. In addition, exempt uses shall meet requirements listed in Item (9) of this Rule for the specific use.

(b) ALLOWABLE. Uses designated as allowable may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (11) of this Rule. This includes construction, monitoring, and maintenance activities. These uses require written authorization from the local government, or the Director for the cases involving state or federal entities.

(c) ALLOWABLE WITH MITIGATION. Uses designated as allowable with mitigation may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (11) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (15) of this Rule. These uses require written authorization from the local government, or the Director for the cases involving state or federal entities.

(11) DETERMINATION OF "NO PRACTICAL ALTERNATIVES." Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a "no practical alternatives" determination to the local government or the Director for the cases involving state or federal entities. The applicant shall certify that the criteria identified in Sub-Item (11)(a) of this Rule are met. The local government, or the Director for the cases involving state or federal entities, shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:

(a) For any request for an Authorization Certificate, the local government, or the Director for the cases involving state or federal entities, shall review the entire project and make a finding of fact as to whether the following requirements have been met in support of a "no practical alternatives" determination:

(i) The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality;

(ii) The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality; and

(iii) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(b) Requests for an Authorization Certificate shall be reviewed and either approved or denied within 60 days of receipt of a complete submission based on the criteria in Sub-Item (11)(a) of this Rule and the local ordinance or ordinances enforcing this Rule by the local government, or the Director for the cases involving state or federal entities. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." An Authorization Certificate shall be issued to the applicant, unless:

(i) The applicant agrees, in writing, to a longer period; and

(ii) Applicant fails to furnish requested information necessary to the local government's decision or the Director's decision for the cases involving state or federal entities.

(c) The local government, or the Director for the cases involving state or federal entities, may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of the riparian buffer protection program.

Complete submissions shall include the following:

(i) The name, address and phone number of the applicant;

(ii) The nature of the activity to be conducted by the applicant;

(iii) The location of the activity, including the jurisdiction;

(iv) A map of sufficient detail to accurately delineate the boundaries of the land to be utilized in carrying out the activity, the location and dimensions of any disturbance in riparian buffers associated with the activity, and the extent of riparian buffers on the land;

(v) An explanation of why this plan for the activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality; and

(vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

(d) Any disputes over determinations regarding Authorization Certificates shall be referred to the local government's appeals process for a decision, or to the Director for determinations involving lands of state and federal entities. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

(12) VARIANCES. Persons who wish to undertake prohibited uses may pursue a variance. The local government may only grant minor variances. For major variances, local governments shall prepare preliminary findings and submit them to the Commission for approval. The variance request procedure shall be as follows:

(a) There are practical difficulties or unnecessary hardships that prevent compliance with the riparian buffer protection requirements. Practical difficulties or unnecessary hardships shall be evaluated in accordance with the following:

(i) If the applicant complies with the provisions of this Rule, he/she can secure no reasonable return from, nor make reasonable use of, his/her property. Merely proving that the variance would permit a greater profit from the property shall not be considered adequate justification for a variance. Moreover, the local government, or the Director for the cases involving state or federal entities, shall consider whether the variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible.

(ii) The hardship results from application of this Rule to the property rather than from other factors such as deed restrictions or other hardship.

(iii) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.

(iv) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule.

(v) The applicant did not purchase the property after the effective date of this Rule, and then request a variance.

(vi) The hardship is unique to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice.

(b) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and preserves its spirit; and

(c) In granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

(13) MINOR VARIANCES. A minor variance request pertains to activities that are proposed only to impact any portion of Zone two of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Sub-Item (11)(a) of this Rule by the local government pursuant to G.S. 153A-Article 18, or G.S. 160A-Article 19. The local government may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Request for appeals to decisions made by the local government shall be made through the local government's appeals process, or to the Director for determinations involving state and federal entities. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

(14) MAJOR VARIANCES. A major variance request pertains to activities that are proposed to impact any portion of Zone one or any portion of both Zones one and two of the riparian buffer. If the local government, or the Director for the cases involving state or federal entities, has determined that a major variance request meets the requirements in Sub-Item (9)(a) of this Rule, then it shall prepare a preliminary finding and submit it to the Commission for approval. Within 90 days after receipt by the local government, or the Director for the cases involving state or federal entities, the Commission shall review preliminary findings on major variance requests. The following actions shall be taken depending on the Commission's decision on the major variance request:

(a) Upon the Commission's approval, the local government shall issue a final decision granting the major variance. The Director shall issue the final decision for the cases involving state or federal entities.

(b) Upon the Commission's approval with conditions or stipulations, the local government shall issue a final decision, which includes these conditions or stipulations. The Director shall issue a final decision for the cases involving state or federal entities.

(c) Upon the Commission's denial, the local government shall issue a final decision denying the major variance. The Director shall issue a final decision for the cases involving state or federal entities.

(15) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use.

(a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item (11) of this Rule; and

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0268.

(16) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices:

(a) The following measures shall apply in the entire riparian buffer:

(i) Logging decks and sawmill sites shall not be placed in the riparian buffer.

(ii) Access roads and skid trails shall be prohibited except for temporary and permanent stream crossings established in accordance with 15A NCAC 01I .0203. Temporary stream crossings shall be permanently stabilized after any site disturbing activity is completed.

(iii) Timber felling shall be directed away from the stream or water body.

(iv) Skidding shall be directed away from the stream or water body and shall be done in a manner that minimizes soil disturbance and prevents the creation of channels or ruts.

(v) Individual trees may be treated to maintain or improve their health, form or vigor.

(vi) Harvesting of dead or infected trees or application of pesticides necessary to prevent or control extensive tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site pursuant to the rule. The Division of Forest

Resources must notify the local government of all approvals.

(vii) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed.

(viii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species.

(ix) High-intensity prescribed burns shall not be allowed.

(x) Application of fertilizer shall not be allowed except as necessary for permanent stabilization. Broadcast application of fertilizer or herbicides to the adjacent forest stand shall be conducted so that the chemicals are not applied directly to or allowed to drift into the riparian buffer.

(b) In Zone one, forest vegetation shall be protected and maintained. Selective harvest as provided for below is allowed on forest lands that have a deferment for use value under forestry in accordance with G.S. 105-277.2 through 277.6 or on forest lands that have a forest management plan prepared or approved by a registered professional forester. Copies of either the approval of the deferment for use value under forestry or the forest management plan shall be produced upon request. For such forest lands, selective harvest is allowed in accordance with the following:

(i) Tracked or wheeled vehicles are not permitted except at stream crossings designed, constructed and maintained in accordance with 15A NCAC 01I .0203;

(ii) Soil disturbing site preparation activities are not allowed; and

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation.

(c) The following provisions for selective harvesting shall be met:

(i) The first 10 feet of Zone one directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined provided that no trees with exposed primary roots visible in the streambank be cut.

(ii) In the outer 20 feet of Zone one, a maximum of 50 percent of the trees greater than five inches DBH may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations where the reentry time shall be no more frequent than every five years. In either case, the trees remaining after harvest shall be as evenly spaced as possible.

(iii) In Zone two, harvesting and regeneration of the forest stand shall be allowed in accordance with 15A NCAC 0II .0100 through .0200 as enforced by the Division of Forest Resources.

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

(a) For state and federal entities, the Division shall implement the requirements of this Rule as of its effective date.

(b) Within six months of the effective date of this Rule, local governments shall submit a local program including all necessary ordinances to the Division for review. The local program shall detail local government buffer program implementation including but not limited to such factors as a method for resolution of disputes involving Authorization Certificate or variance determinations, a plan for record keeping, and a plan for enforcement. Local governments shall use the latest version of the Division's publication, Identification Methods for the Origins of Intermittent and Perennial Streams,

available at http://h2o.enr.state.nc.us/ncwetlands/regcert.html, to establish the existence of streams.

(c) Within one year of the effective date of the Rule, the Division shall request Commission approval.

(d) Within 14 months of the effective date of the Rule, local governments shall implement programs to ensure that existing land use activities and proposed development complies with local programs.

(e) Upon implementation, subject local governments shall submit annual reports to the Division summarizing their activities in implementing each of the requirements in Item (4) of this Rule.

(f) If a local government fails to adopt or adequately implement its program as called for in this Rule, the Division may take appropriate enforcement action as authorized by statute, and may choose to assume responsibility for implementing that program until such time as it determines that the local government is prepared to comply with its responsibilities.

(18) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all federal, state and local regulations and laws.

Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B(b); 143B-282(c); 143B-282(d) S.L. 1999-329, s. 7.1.; S.L. 2005-190.

15A NCAC 02B .0268 JORDAN WATER SUPPLY NUTRIENT STRATEGY: MITIGATION FOR RIPARIAN BUFFERS

The following are requirements for the Riparian Buffer Mitigation Program for the Jordan watershed, as prefaced in 15A NCAC 02B .0262:

(1) PURPOSE. The purposes of this Rule shall be to set forth the mitigation requirements that the local governments listed in 15A NCAC 02B .0262, and in certain cases stated in this Rule the Division, apply to the riparian buffer protection program in the Jordan watershed, as described in 15A NCAC 02B .0267, and whose surface waters are described in the Schedule of Classifications, 15A NCAC 02B .0311. Additionally this Rule will help to protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed. Local programs shall be established to meet or exceed the minimum requirements of this Rule. However, the Division shall assume responsibility for applying the requirements of this Rule to buffer activities state and federal entities. For buffer activities on state and federal entities in the Jordan watershed, it shall be presumed that the Division shall apply the requirements of this Rule wherever local governments are referenced unless otherwise indicated. The requirements of this Rule shall supersede all buffer requirements stated in 15A NCAC 02B .0214 through .0216 as applied to WS-II, WS-III, and WS-IV waters in the Jordan watershed. Local governments may choose to implement more stringent rules, including the one-hundred foot buffer requirement set out in Sub-Item (3)(b)(i) of Rules 15A NCAC 02B .0214 through .0216 for high-density developments.

(2) APPLICABILITY. This Rule applies to persons who wish to impact a riparian buffer in the Jordan watershed when one of the following applies:

(a) A person has received an Authorization Certificate pursuant to 15A NCAC 02B .0267 for a proposed use that is designated as "allowable with mitigation."

(b) A person has received a variance pursuant to 15A NCAC 02B .0267 and is required to perform mitigation as a condition of a variance approval.

(3) THE AREA OF MITIGATION. The local government, or the Director for the cases involving state or federal entities, shall determine the required area of mitigation, which shall apply to all mitigation options identified in Sub-Item (6) of this Rule, according to the following:

(a) The impacts in square feet to each zone of the riparian buffer shall be determined by the local government, or the Director for the cases involving state or federal entities, by adding the following:

(i) The area of the footprint of the use causing the impact to the riparian buffer;

(ii) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use; and

(iii) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.

(b) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Sub-item (3)(a) of this Rule to each zone of the riparian buffer:

(i) Impacts to Zone one of the riparian buffer shall be multiplied by three;

(ii) Impacts to Zone two of the riparian buffer shall be multiplied by one and one-half; and

(iii) Impacts to wetlands within Zones one and two of the riparian buffer that are subject to mitigation under 15A NCAC 02H .0506 shall comply with the mitigation ratios in 15A NCAC 02H .0506.

(4) THE LOCATION OF MITIGATION. The mitigation effort shall be located the same distance from the Jordan Reservoir as the proposed impact, or closer to the Reservoir than the impact, and as close to the location of the impact as feasible.

Insert text after the word 'feasible': ,or as determined by the DWQ as an ecologically acceptable area.

(5) ISSUANCE OF THE MITIGATION DETERMINATION. The local government, or the Director for the cases involving state or federal entities, shall issue a mitigation determination that specifies the required area and location of mitigation pursuant to Items (3) and (4) of this Rule.

(6) OPTIONS FOR MEETING THE MITIGATION DETERMINATION. The mitigation determination made pursuant to Item (5) of this Rule may be met through one of the following options:

(a) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to 15A NCAC 02B .0272;

(b) Donation of real property or of an interest in real property pursuant to Item (7) of this Rule; and

(c) Restoration or enhancement of a non-forested riparian buffer. This shall be accomplished by the applicant after submittal and approval of a restoration plan pursuant to Item (8) of this Rule.

(7) DONATION OF PROPERTY. Persons who choose to satisfy their mitigation determination by donating real property or an interest in real property shall meet the following requirements:

(a) The donation of real property interests may be used to either partially or fully satisfy the payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to 15A NCAC 02B .0272. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-item (7)(d)(iv) of this Rule. The donation shall satisfy the mitigation determination if the appraised value of the donated property interest is equal to or greater than the required fee. If the appraised value of the donated property interest is less than the required fee calculated pursuant to 15A NCAC 02B .0272, the applicant shall pay the remaining balance due.

(b) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.

(c) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(i) The property shall be located within an area that is identified as a priority for restoration in, or is otherwise consistent with the goals of, the Basinwide Wetlands and Riparian Restoration Plan for the Cape Fear River Basin developed by the Department pursuant to G.S. 143-214.10.

(ii) The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration. Buffers not in compliance with 15A NCAC 02B .0267 are in need of restoration.

(iii) The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(iv) The size of the restorable riparian buffer on the property to be donated shall

equal or exceed the acreage of riparian buffer required to be mitigated under the mitigation responsibility determined pursuant to Item (3) of this Rule.

(v) The property shall not require excessive measures for successful restoration, such as removal of structures or infrastructure. Restoration of the property shall be capable of fully offsetting the adverse impacts of the requested use.

(vi) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation.

(vii) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and land acquisition costs.

(viii) The property shall not contain any building, structure, object, site, or district that is listed in the National Register of Historic Places established pursuant to Public Law 89-665, 16 U.S.C. 470 as amended.

(ix) The property shall not contain any hazardous substance or solid waste.

(x) The property shall not contain structures or materials that present health or safety problems to the general public. If wells, septic, water or sewer connections exist, they shall be filled, remediated or closed at owner's expense in accordance with state and local health and safety regulations.

(xi) The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort.

(xii) The property shall not have any encumbrances or conditions on the transfer of the property interests.

(d) At the expense of the applicant or donor, the following information shall be submitted to the local government, or the Director for the cases involving state or federal entities, with any proposal for donations or dedications of interest in real property:

(i) Documentation that the property meets the requirements laid out in Sub-Item (8)(c) of this Rule;

(ii) US Geological Survey 1:24,000 (7.5 minute) scale topographic map, county tax map, USDA Natural Resource Conservation Service County Soil Survey Map, and county road map showing the location of the property to be donated along with information on existing site conditions, vegetation types, presence of existing structures and easements;

(iii) A current property survey performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the State Board of Registration for Professional Engineers and Land Surveyors in "Standards of Practice for Land Surveying in North Carolina." Copies may be obtained from the North Carolina State Board of Registration for Professional Engineers and Land Surveyors, 3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609;

(iv) A current appraisal of the value of the property performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the Appraisal Board in the "Uniform Standards of Professional North Carolina Appraisal Practice." Copies may be obtained from the Appraisal Foundation, Publications Department,

P.O. Box 96734, Washington, D.C. 20090-6734; and

(v) A title certificate.

(8) RIPARIAN BUFFER RESTORATION OR ENHANCEMENT. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

(a) The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:

(i) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Item (3) of this Rule; or

(ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Item (3) of this Rule.

(b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (4) of this Rule.

(c) The riparian buffer restoration or enhancement site shall have a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(d) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 02B .0267. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the local government, or the Director for the cases involving state or federal entities. The restoration or enhancement plan shall contain the following:

(i) A map of the proposed restoration or enhancement site;

(ii) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity;

(iii) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer;

(iv) A fertilization plan; and

(v) A schedule for implementation.

(e) Within one year after the local government has approved the restoration or enhancement plan, the applicant shall present proof to the local government, or the Director for the cases involving state or federal entities, that the riparian buffer has been restored or enhanced. If proof is not presented within this timeframe, then the person shall be in violation of both the State's and the local government's riparian buffer protection program.

(f) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions.

(g) The applicant shall submit annual reports for a period of five years after the restoration or enhancement showing that the trees planted have survived and that diffuse flow through the riparian buffer has been maintained. The applicant shall replace trees that do not survive and restore diffuse flow if needed during that five-year period.

Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d); 143-215.8B(b); 143B-282(c); S.L. 1999-329, s. 7.1.; S.L. 2005-190.

15A NCAC 02B .0269 JORDAN WATER SUPPLY NUTRIENT STRATEGY: OPTIONS FOR OFFSETTING NUTRIENT LOADS

PURPOSE. This Rule provides parties (buyers) subject to other rules within the Jordan nutrient strategy with options for meeting rule requirements by obtaining credit for activities conducted by others (sellers) that produce excess load reductions relative to rule requirements. This offset option furthers the adaptive management intent of the strategy to protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed. Certain buyers shall meet minimum criteria identified in other rules before utilizing the offset option outlined in this Rule, as detailed in Item (1) of this Rule.

(1) PREREQUISITES. The following parties shall first meet minimum criteria identified in the following sections of rules pertaining to them:

(a) Agriculture Rule .0264: Producers shall first meet standard BMP requirements as set forth in Item (7) unless superseded by a Commission-approved alternative strategy after

.0268(8) (d) (ii) and (g): The DWQ should clarify these two (2) sections. The NCDOT recommends modifying these two (2) sections to allow 320 trees/acre at three (3) years and 260 trees/acre at five (5) years. By forestry and current wetland restoration standards, this is a reasonable request.

two or five years as set forth in Item (5);

(b) New Development Rule .0265: developers shall meet onsite reduction requirements enumerated in Sub-Item (3)(a)(vi);

(c) Wastewater Rule .0270: New and expanding dischargers shall first make all reasonable efforts to obtain allocation from existing dischargers as stated in Sub-Items (6)(a)(ii), (7)(a)(ii) respectively;

(d) State and Federal Entities Stormwater Rule .0271, non-DOT entities shall meet onsite reduction requirements enumerated in Sub-Item (3)(a)(vi).

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

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

Rule .0269(2)(a) would prevent the DOT from implementing cost effective nutrient load reductions via trading.

(b) These excess loading reductions shall be available as credit only within the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section, as the reduction need that they propose to offset;

trade

(c) The party seeking to sell excess loading reductions shall define the nature of the activities that would produce those reductions and define the magnitude and duration of those reductions to the Division, including addressing the following items:

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

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

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

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

(d) Ensure that the loading reduction need does not produce localized adverse water quality impacts that contribute to impairment of classified uses of the affected waters.

trade

(3) The party seeking approval to ~~sell~~ excess loading reductions pursuant to this Rule shall provide for accounting and tracking methods that ensure genuine, accurate, and verifiable achievement of the purposes of this Rule. The Division shall work cooperatively with interested parties at their request to develop such accounting and tracking methods to support the requirements of Item (2) of this Rule.

(4) Proposals for use of offsetting actions as described in this Rule shall become effective after determination by the Director that the proposal contains adequate scientific or engineering standards or procedures necessary to achieve and account for load reductions.

Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d); 143-214.12; 143-214.21; 143-215.8B(b); 143B-282(c); 143B-282(d); S.L. 1999; c. 329, s. 7.1; S.L. 2005-190.

15A NCAC 02B .0270 JORDAN WATER SUPPLY NUTRIENT STRATEGY: WASTEWATER DISCHARGE REQUIREMENTS

The following is the National Pollutant Discharge Elimination System (NPDES) wastewater discharge management strategy for the B. Everett Jordan Reservoir Watershed to protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed:

(1) Applicability. This Rule applies to all wastewater treatment facilities discharging in the Jordan Reservoir Watershed that receive nutrient-bearing wastewater and are required to obtain individual NPDES permits.

(2) Definitions. For the purposes of this Rule, the following definitions apply:

(a) In regard to point source dischargers, treatment facilities, wastewater flows or discharges, or like matters,

(i) "Existing" means that which obtained or was subject to a NPDES permit on or before December 31, 2001.

(ii) "Expanding" means that which increases beyond its

permitted flow as defined in this Rule.

(iii) "New" means that which had not obtained or was not subject to a NPDES permit on or before December 31, 2001.

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

(c) "Discharge", as in discharge allocation, load, or limit means the allocation, load, or limit that is measured at the point of discharge into surface waters in the Jordan Reservoir Watershed. A discharge value is equivalent to a delivered value divided by its assigned transport factor.

(d) "MGD" means million gallons per day.

(e) "Allocation" means the mass quantity, as of nitrogen or phosphorus, that a discharger or group of dischargers is potentially allowed to release into surface waters of the Jordan Reservoir Watershed. Allocations may be expressed as "delivered allocation" or as the equivalent "discharge allocation." Possession of allocation does not authorize the discharge of nutrients but is prerequisite to such authorization in a NPDES permit.

(f) "Limit" means the mass quantity, as of nitrogen or phosphorus, that a discharger or group of dischargers is authorized through a NPDES permit to release into surface waters of the Jordan Reservoir Watershed. Limits may be expressed as "delivered limit" or as the equivalent "discharge limit."

(g) "Load" means the actual mass quantity, as of nitrogen or phosphorus, that a discharger or group of dischargers releases into surface waters of the Jordan Reservoir Watershed. Loads may be expressed as "delivered load" or as the equivalent "discharge load."

(h) "Nutrients" means total nitrogen and total phosphorus.

(i) "Nutrient load allocation" or "load allocation" means the aggregate allocation of nitrogen or phosphorus for all nonpoint sources in the watershed or any of its subwatersheds. The load allocations are expressed as delivered allocations.

(j) "Nutrient wasteload allocation" or "wasteload allocation" means the aggregate allocation of nitrogen or phosphorus for all point source dischargers in the watershed or any of its subwatersheds. The wasteload allocations are expressed as delivered allocations.

(k) "Permitted flow" means the maximum monthly average flow authorized in a facility's NPDES permit as of December 31, 2001, with the following exceptions:

Facility Owner	Facility Name	NPDES Permit	Permitted Flow (MGD)
B. E. Jordan & Son, LLC	Saxapahaw WWTP	NC0042528	0.036
Durham County	Triangle WWTP	NC0026051	12.0
Fearrington Util., Inc.	Fearrington Util. WWTP	NC0043559	0.5
Greensboro, City of	T.Z. Osborne WWTP	NC0047384	40.0
Mervyn R. King	Countryside Manor WWTP	NC0073571	0.03
OWASA	Mason Farm WWTP	NC0025241	14.5
Pittsboro, Town of	Pittsboro WWTP	NC0020354	2.25
Quarterstone Farm HOA	Quarterstone Farm WWTP	NC0066966	0.2
Whippoorwill LLC	Carolina Meadows WWTP	NC0056413	0.35

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

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

(n) "Transport factor" means the fraction of the total nitrogen or total phosphorus in a discharge that is predicted to be delivered to the reservoir.

(3) This Item specifies the initial nutrient wasteload allocations for point source dischargers under this strategy.

(a) The wasteload allocations of nitrogen and phosphorus assigned to point source dischargers in each of the Jordan Reservoir subwatersheds shall equal the loading targets specified in 15A NCAC 02B .0262.

(b) The initial allocations shall be divided as follows:

Subwatershed and Discharger Subcategories	Delivered Allocations (lb/yr) Total Nitrogen	Total Phosphorus
Upper New Hope Arm		
Permitted flows ≥ 0.1 MGD	332,467	22,498
Permitted flows < 0.1 MGD	3,613	608
Lower New Hope Arm		
Permitted flows ≥ 0.1 MGD	6,836	498
Permitted flows < 0.1 MGD	0	0
Haw River Arm		
Permitted flows ≥ 0.1 MGD	881,757	104,004
Permitted flows < 0.1 MGD	13,370	1,996

(c) INDIVIDUAL DELIVERED ALLOCATIONS. The nutrient allocations in Sub-Item (b) of this Item shall be apportioned among existing dischargers in each subcategory in proportion to the dischargers' permitted flows and the resulting delivered nutrient allocations assigned to each individual discharger.

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

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

(i) Whenever, as provided in Rule 02B .0262, the Commission revises the wasteload allocations in order to ensure that water quality in the reservoir and its tributaries meets all standards in 15A NCAC 02B .0200 or to conform with applicable state or federal requirements;

(ii) Whenever any portion of the nutrient load allocations is acquired by one or more point source dischargers under the provisions in this Rule, 15A NCAC 02B .0240, and 02B .0269; and

(iii) As the result of allocation transfers between point sources or between point and nonpoint sources, as provided elsewhere in this Jordan Reservoir Strategy, except that any allocation can only be transferred within its assigned subwatershed.

(b) In the event that the Commission revises any nutrient wasteload allocation specified in 15A NCAC 02B .0262 or Item (3) of this Rule, the Commission shall also re-evaluate the apportionment among the dischargers and shall revise the individual allocations as necessary.

(5) This Item specifies nutrient controls for discharges from existing discharges.

(a) No later than six months from the effective date of this Rule, each existing discharger with permitted flows greater than or equal to 0.1 MGD shall evaluate its treatment facilities and operations and identify further opportunities to improve and optimize nutrient reduction beyond those implemented pursuant to G.S. 143-215.1B(d), and shall submit a report to the Division documenting its findings, proposed actions, and expected results. No later than one year after the effective date of this Rule, each such discharger shall submit a report to the division documenting the measures taken and the nutrient reductions achieved. Each discharger shall continue these optimization measures indefinitely.

(b) Beginning with calendar year 2016, any discharger with a permitted flow equal to or greater than 0.1 MGD shall be subject to total nitrogen permit limits not to exceed its individual discharge allocations, pursuant to Item (3) of this Rule.

(c) Beginning with the first full calendar year after the effective date of the rule, any discharger with a permitted flow equal to or greater than 0.1 MGD shall be subject to total phosphorus permit limits not to exceed its individual discharge

allocations, pursuant to Item (3) of this Rule.

(d) The Director shall establish more stringent limits for nitrogen or phosphorus upon finding that such limits are necessary to protect water quality standards in localized areas.

(6) This Item specifies nutrient controls for new discharges.

(a) Any person proposing a new wastewater discharge to surface waters shall meet the following requirements prior to applying for an NPDES permit:

(i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H .0105(c)(2);

(ii) Make every reasonable effort to obtain allocation for the proposed discharge from existing dischargers. If it cannot acquire the necessary allocation from existing facilities, the proponent may purchase a portion of the nonpoint source load allocation for a period of 30 years at the rate set in 15A NCAC 02B .0240 to implement practices designed to offset the loading created by the new facility. Payment for each 30-year portion of the nonpoint source load allocation shall be made prior to the ensuing permit issuance;

(iii) Determine whether the proposed discharge of nutrients will cause local water quality impacts; and

(iv) Provide documentation with its NPDES application demonstrating that the requirements of Sub-Items (a)(i) and (ii) of this Item have been met.

(b) The nutrient discharge allocations for a new facility shall not exceed the mass equivalent to a concentration of 3.0 mg/L nitrogen or 0.18 mg/L phosphorus at the greatest monthly flow limit in the discharger's NPDES permit.

(c) Upon the effective date of its NPDES permit, a new discharger shall be subject to nitrogen and phosphorus limits not to exceed its individual discharge allocations.

(d) The Director shall establish more stringent limits for nitrogen or phosphorus upon finding that such limits are necessary to protect water quality standards in localized areas.

(7) This Item specifies nutrient controls for expanding discharges.

(a) Any person proposing to expand an existing wastewater discharge to surface waters beyond its permitted flow as defined in this Rule shall meet the following requirements prior to applying for an NPDES permit:

(i) Evaluate all practical alternatives to said discharge, pursuant to 15A NCAC 02H .0105(c)(2);

(ii) Make every reasonable effort to obtain allocation for the proposed discharge from existing dischargers. If it cannot acquire the necessary allocation from existing facilities, the proponent may purchase a portion of the nonpoint source load allocation for a period of 30 years at the rate set in 15A NCAC 02B .0240 to implement practices designed to offset the loading created by the new facility. Payment for each 30-year portion of the nonpoint source load allocation shall be made prior to the ensuing permit issuance;

(iii) Determine whether the proposed discharge of nutrients will cause local water quality impact; and

(iv) Provide documentation with its NPDES application demonstrating that the requirements of Sub-Items (a)(i) through (ii) of this Item have been met.

(b) The nutrient discharge allocations for an expanding facility shall not exceed the mass value equivalent to a concentration of 3.0 mg/L nitrogen or 0.18 mg/L phosphorus at the greatest monthly flow limit in the discharger's NPDES permit except that this provision shall not result in an allocation or limit that is less than

originally assigned to the discharger under this Rule.

(c) Upon expansion or upon notification by the Director that it is necessary to protect water quality, any discharger with a permitted flow of less than 0.1 MGD, as defined under this Rule, shall become subject to total nitrogen and total phosphorus permit limits not to exceed its individual discharge allocations.

(d) The Director shall establish more stringent limits for nitrogen or phosphorus upon finding that such limits are necessary to protect water quality standards in localized areas.

(8) This Item describes additional requirements regarding nutrient discharge limits for wastewater facilities:

(a) Annual mass nutrient limits shall be established as calendar -year limits.

(b) Any point source discharger holding nutrient allocations under this Rule may by mutual agreement transfer all or part of its allocations to any new, existing, or expanding dischargers in the same Jordan Reservoir Subwatershed or to other person(s), subject to the restrictions and requirements presented in this Rule.

(c) For NPDES compliance purposes, the enforceable nutrient limits for an individual facility or compliance association shall be the effective limits in the governing permit, regardless of the allocation held by the discharger or association.

(d) In order for any transfer of allocation to become effective as a discharge limit in an individual NPDES permit, the discharger must request and obtain modification of the permit. Such request must:

(i) Describe the purpose and nature of the modification;

(ii) Describe the nature of the transfer agreement, the amount of allocation transferred, and the dischargers or persons involved;

(iii) Provide copies of the transaction agreements with original signatures consistent with NPDES signatory requirements; and

(iv) Demonstrate to the Director's satisfaction that the increased nutrient discharge will not violate water quality standards in localized areas.

(e) Changes in a discharger's nutrient limits shall become effective upon modification of its individual permit but no sooner than January 1 of the year following modification. If the modified permit is issued after January 1, the Director may make the limit effective on that January 1 provided that the discharger made acceptable application in a timely manner.

(f) Regional Facilities. In the event that an existing discharger or group of dischargers accepts wastewater from another NPDES-permitted treatment facility in the same Jordan Reservoir subwatershed and that acceptance results in the elimination of the discharge from the treatment facility, the eliminated facility's delivered nutrient allocations shall be transferred and added to the accepting discharger's delivered allocations.

(9) This Item describes the option for dischargers to join a group compliance association to collectively meet nutrient control requirements.

(a) Any or all facilities within the same Jordan Reservoir subwatershed may form a group compliance association to meet delivered nutrient allocations collectively. More than one group compliance association may be established in any subwatershed. No facility may belong to more than one association at a time.

(b) Any such association must apply for and shall be subject to an NPDES permit that establishes the effective nutrient limits for the association and for its members.

(c) No later than 180 days prior to the proposed date of a new association's operation or expiration of an existing association's NPDES permit, the association and its members shall submit an application for a NPDES permit for the discharge of nutrients to the surface waters of the Jordan Reservoir Watershed. The association's NPDES permit shall be issued to the association and its members. It shall specify the delivered nutrient limits for the association and for each of its co-permittee members and other

requirements the Director deems appropriate. Association members shall be deemed in compliance with the permit limits for nitrogen and phosphorus contained in their individually issued NPDES permits so long as they remain members in an association.

(d) An association's delivered nitrogen and phosphorus limits shall be the sum of its members' individual delivered allocations for each nutrient plus any other allocation obtained by the association or its members.

(e) The individual delivered allocations for each member in the association permit shall initially be equivalent to the discharge limits in effect in the member's NPDES permit. Thereafter, changes in individual allocations or limits must be incorporated into the members' individual permits before they are included in the association permit.

(f) An association and its members may reapportion the individual delivered allocations of its members on an annual basis. Changes in individual allocations or limits must be incorporated into the members' individual permits before they are included in the association permit.

(g) Changes in nutrient limits shall become effective no sooner than January 1 of the year following permit modification. If the modified permit is issued after January 1, the Director may make the limit effective on that January 1 provided that the discharger made acceptable application in a timely manner.

(h) Beginning with calendar year 2016, an association that does not meet its permit limit for nitrogen for a calendar year shall make an offset payment as provided and at the rate set in 15A NCAC 02B .0240 no later than May 1 of the year following the exceedence.

(i) Beginning with the first calendar year following the effective date of this Rule, an association that does not meet its permit limit for phosphorus for a calendar year shall make an offset payment as provided and at the rate set in 15A NCAC 02B .0240 no later ~~than~~ May 1 of the year following the exceedence.

To achieve and maintain nonpoint source nitrogen and phosphorus load reductions from state-maintained roadways and industrial facilities, and from lands controlled by other state and federal entities in the Jordan watershed;

(j) Association members shall be deemed in compliance with their individual delivered allocations in the association NPDES permit as long as the association is in compliance with its delivered allocation. If the association fails to meet its delivered allocation, the association and the members that have failed to meet their individual delivered nutrient allocations in the association NPDES permit will be out of compliance with the association NPDES permit.

(k) The Director shall establish more stringent limits for nitrogen or phosphorus upon finding that such limits are necessary to protect water quality standards in localized areas.

Authority G.S. 143-214.1; 143-214.5; 143-215; 143-215.1; 143-215.3(a)(1); 143-215.8B(b); 143B-282(c); 143B-282(d); S.L. 1995, c. 572; S.L. 2005-190.

15A NCAC 02B .0271 JORDAN WATER SUPPLY NUTRIENT STRATEGY: STORMWATER REQUIREMENTS FOR STATE AND FEDERAL ENTITIES

The following is the stormwater strategy for the activities of state and federal entities within the Jordan watershed, as prefaced in Rule 02B .0262.

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

(a) ~~To achieve and maintain the nonpoint source nitrogen and phosphorus percentage reduction goals established for Jordan Reservoir in 15A NCAC 02B .0262 relative to the baseline period defined in that Rule by reducing loading from state-maintained roadways and industrial facilities, and from lands controlled by other state and federal entities in the Jordan watershed;~~

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

(c) To protect the water supply uses of Jordan Reservoir and of designated water supplies throughout the Jordan watershed.

A definition of the term 'development' should be included under this rule. The meaning of the word should be established in consultation with the DOT.

(2) APPLICABILITY. This Rule shall apply to all existing and new development under the control of the NC Department of

Transportation (NCDOT), including roadways and industrial facilities, and to all lands controlled by other state and federal entities in the Jordan watershed. Existing development is development that exists as of the effective date of stormwater management programs established under Items (3) and (4) of this Rule or development that occurs after the effective date of those programs but is not subject to the requirements of those programs, such as vested projects and redevelopment that does not yield a net increase in built-upon area. New development is development that occurs subsequent to the effective date of, and is subject to, stormwater management programs established under Items (3) and (4) of this Rule.

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

(a) For any new development proposed within their jurisdictions that would disturb one acre or more for single family and duplex residential property and recreational facilities, and one-half acre or more for commercial, industrial, institutional, or multifamily residential property, non-NCDOT state and federal entities shall develop stormwater management plans for submission to and approval by the Division. These stormwater plans shall not be approved by the Division unless the following criteria are met:

(i) The nitrogen and phosphorus loads contributed by the proposed new development activity shall not exceed certain unit-area mass loading rates. These loading rates shall be calculated as the percentage reduction goals established in 15A NCAC 02B .0262 for the subwatershed or subwatersheds in which the development occurs, applied to area-weighted average loading rates of developable lands in the same subwatershed or subwatersheds. These area-weighted average loading rates shall be determined using land use and loading information representative of the baseline period defined in 15A NCAC 02B .0262. Initial values for nitrogen and phosphorus loading rate targets respectively in each subwatershed shall be the following, expressed in units of pounds per acre per year: 2.2 and 0.82 in the Upper New Hope; 4.4 and 0.78 in the Lower New Hope; and 3.8 and 1.43 in the Haw. The Division may adjust these initial values based on improved land use and loading data or based on modifications to the strategy reduction goals in Item (7) of 15A NCAC 02B .0262. The developer shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in this Section or other similar method acceptable to the Division.

(ii) Proposed new development in any water supply watershed in the Jordan 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, and 10/70 provisions described in Sub-Items (3)(b)(i) and (3)(b)(ii) of the applicable Rule among 15A NCAC 02B .0214 through .0216;

(iii) Stormwater systems shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. The treatment volume shall be drawn down no faster than 48 hours and no slower than 120 hours. Treatment systems shall achieve an 85 percent average annual removal rate for Total Suspended Solids. To ensure that the integrity and nutrient processing

Insert the following text: such as projects and activities falling below a lower threshold of significance as defined through a Division-approved Stormwater Management Program,

A definition of the terms 'vested projects' and 'built-upon area' should be included under this rule. The meaning of these terms should be established through consultation with the DOT

functions of receiving waters and associated riparian buffers are not compromised by erosive flows, stormwater flows from the development shall not contribute to degradation of waters of the State. At a minimum, the 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;

(iv) Proposed new development that would replace or expand structures or improvements that existed as of December 2001, the end of the baseline period, and which would not result in a net increase in built-upon area shall not be required to meet the nutrient loading targets or high-density requirements except to the extent that it shall provide at least equal stormwater control to the previous development. Proposed new development that would replace or expand existing structures or improvements and would result in a net increase in built-upon area shall have the option to either achieve at least the percentage loading reduction goals stated in 15A NCAC 02B .0262 as applied to nitrogen and phosphorus loading from the previous development for the entire project site, or to meet the loading rate targets described in Sub-Item (3)(a)(i);

(v) The proposed new development shall comply with the riparian buffer protection requirements of 15A NCAC 02B .0267 and .0268;

(vi) The entity shall have the option of partially offsetting the nitrogen and phosphorus loads by funding offsite management measures. These offsite, offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with Sub-Item (3)(a)(i) of this Rule. Only offsetting loading reductions in excess of reductions required under other Rules in this strategy shall receive credit. The entity may utilize the offset option provided in 15A NCAC 02B .0240 for this purpose, contingent upon acceptance of their offset proposals by the NC Ecosystem Enhancement Program. Before using off-site offset options, the development shall meet any requirements for engineered stormwater controls described in Sub-Item (3)(a)(ii) of this Rule and under NPDES Phase II regulations, and shall attain a maximum nitrogen loading rate of four pounds/acre/year for single-family detached and duplex residential development and eight pounds/acre/year for other development, including multi-family residential, commercial and industrial; and

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

(b) For existing development, non-NCDOT state and federal entities shall develop and implement programs for achieving sustained nutrient loading reductions from existing development. Non-NCDOT state and federal entities shall submit these programs for approval by the Division. The load reduction program shall meet the following criteria:

(i) The long-term objective of this program shall be for the entity to achieve the percentage nutrient loading reduction goals in Item (3) of 15A NCAC 02B .0262 relative to annual loading representative of the baseline period defined in that Rule and as applied to existing development lands within each subwatershed under its land use authority. In addressing this long-term objective, subject entities shall include estimates of, and plans for offsetting, nutrient loading increases from lands developed subsequent to the baseline period but prior to implementation of new development programs. Should percentage reduction goals be adjusted pursuant to Item (7) of 15A NCAC 02B .0262, then the annual loading goals established in this Sub-Item shall be adjusted accordingly. Entities may seek to fund implementation of load-reducing activities through grant sources such as the North Carolina Clean Water Management Trust Fund, the North Carolina Clean Water Act Section 319 Grant Program, or other funding programs for nonpoint sources;

(ii) Entities shall conduct feasibility studies to determine the extent to which the loading goals referenced in this Rule may be achieved from lands within an entity's jurisdiction that are not subject to Sub-Item (3)(a) of this Rule, including existing developed lands, through retrofitting. Entities shall develop a proposed implementation rate and compliance schedule for load reductions. This schedule shall provide for reasonable and steady progress toward reduction goals throughout the proposed compliance period;

(iii) The program shall identify specific load-reducing practices implemented to date subsequent to the baseline period and for which it is seeking credit;

(iv) The program shall identify the types of activities the entity intends to implement and types of existing development affected, relative proportions or a prioritization of practices, and the relative magnitude of reductions it expects to achieve from each. An entity may credit any nitrogen or phosphorus load reductions in excess of those required by other rules in this Chapter. The program shall identify the duration of anticipated loading reductions, and should seek activities that provide sustained, long-term reductions. Potential load-reducing activities may include but would not be limited to stormwater activities such as street sweeping, removal of existing built-upon area, retrofitting of existing development with engineered best management practices (BMPs), requiring treatment of runoff in redevelopment projects, requiring over-treatment of runoff in new development projects, collection system improvements, and removal of illegal discharges;

(v) An entity shall have the option of working with municipalities or counties within its subwatershed to jointly meet the loading targets from all existing development within their combined jurisdictions; and

(vi) The entity shall include measures to provide for operation and maintenance of retrofitted stormwater controls to ensure that they

meet the loading targets required in Sub-Item (3)(b) of this Rule for the life of the development.

(4) The NCDOT shall develop a single Stormwater Management Program that will be applicable to the entire Jordan watershed and submit this program for approval by the Division. The program shall include the following elements and meet the associated criteria:

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

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

(c) ~~Establish a strategy for post-construction stormwater runoff control for new development, including new and widening NCDOT roads and industrial facilities. The strategy shall be designed to achieve and maintain the nitrogen and phosphorus percentage loading reduction goals established for each subwatershed in 15A NCAC 02B .0262 on new development in each subwatershed relative to estimates of loads delivered to Jordan Reservoir from developable lands. Load estimates shall be based on either area-weighted average loading rates of developable lands representative of the baseline period defined in 15A NCAC 02B .0262, or on project-specific quantification of pre-development land uses and associated loading rates. Load estimates based on developable lands shall be further based on the following at-source target values, expressed in units of pounds per acre per year of nitrogen and phosphorus respectively, for activities in each subwatershed: 2.2 and 0.82 in the Upper New Hope; 4.4 and 0.78 in the Lower New Hope; and 3.8 and 1.43 in the Haw. The Division may adjust these initial values based on improved land use and loading data or based on modifications to the strategy reduction goals in Item (7) of 15A NCAC 02B .0262. The NCDOT may propose to achieve equivalent reductions to these loading rate targets delivered to Jordan Reservoir from various activities in each subwatershed. This may include utilizing the offset option provided in 15A NCAC 02B .0240 for this purpose, contingent upon approval by the NC Ecosystem Enhancement Program. Where stormwater treatment systems are needed to meet these goals, as defined in the Stormwater Management Program, they shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. It shall also address control of runoff flows to meet the purpose of this Rule regarding protection of the nutrient functions and integrity of receiving waters. The strategy shall establish a process by which the Division shall review and approve stormwater designs for NCDOT development projects. The strategy shall delineate the scope of vested projects that would be considered as existing development, and shall define lower thresholds of significance for activities considered new development;~~

(d) ~~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 loading goals in 15A NCAC 02B .0262 as applied to existing development under its control, including roads and industrial facilities. In addressing this long-term objective, the NCDOT shall include estimates of, and plans for offsetting, nutrient loading increases from lands developed subsequent to the baseline period but prior to implementation of its new development program. The plan shall include a feasibility analysis on the extent to which the NCDOT can meet these goals and a proposed implementation rate and schedule. This schedule shall provide for reasonable and steady progress toward reduction goals throughout the proposed compliance period. The plan shall identify the types of activities DOT intends to implement and types of existing development affected, relative proportions or a prioritization of practices, and the relative magnitude of reductions it expects to achieve from each;~~

DENR has not established the technical basis for rule .0271 (4) (c) and (4) (d). Therefore all requirements under these two rules should be removed and replaced with alternative language developed after an analysis that determines DOT's nutrient load contribution and impact. Upon completion of this analysis, appropriate controls should be integrated into the DOT's NPDES Stormwater Permit for compliance.

(e) Initiate a "Nutrient Management Education Program" for NCDOT staff and contractors engaged in the application of fertilizers on highway rights of way. The purpose of this program shall be to contribute to the loading reduction goals established in 15A NCAC 02B .0262 through proper application of nutrients, both inorganic fertilizer and organic nutrients, to highway rights of way in the Jordan watershed in keeping with the most current state-recognized technical guidance on proper nutrient management; and

(f) Address compliance with the riparian buffer protection requirements of 15A NCAC 02B .0267 and .0268 through a Division approval process.

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

(a) Subject entities shall comply with the requirements of Sub-Item (3)(a) of this Rule for any new development proposed within their jurisdictions after the effective date of this Rule;

(b) Within 36 months after the effective date of this Rule, subject entities shall submit loading reduction programs addressing Sub-Item (3)(b) of this Rule to the Division, including the following regarding Sub-Item (3)(b)(ii) of this Rule:

(i) The results of feasibility studies that determine the extent to which the loading goals referenced in this Rule may be achieved from existing development lands within their jurisdictions;

(ii) A proposed implementation schedule for load reduction projects.

(c) Within 46 months of the effective date of this Rule, the Division shall request the Commission's approval of entities' load reduction programs submitted under Sub-Item (5)(b) of this Rule. The Commission shall either approve the programs or require changes. Should the Commission require changes, the Division shall address those changes and seek Commission approval at the earliest feasible date subsequent to the original request;

(d) Within 48 months of the effective date of this Rule, or within two months following Commission approval of a program, whichever is later, entities shall implement load reduction programs on the timeframe established under the feasibility study; and

(e) Upon implementation, subject entities shall provide annual reports to the Division documenting their progress in implementing the requirements of Item (3) of this Rule, including changes to nutrient loading due to implementation of Sub-Item (3)(b) of this Rule.

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

(a) Within 18 months of the effective date of this rule, the NCDOT shall submit the Stormwater Management Plan for the Jordan watershed to the Division for approval. This Plan shall meet or exceed the requirements in Item (4) of this Rule;

(b) Within 28 months of the effective date of this Rule, the Division shall request the Commission's approval of the NCDOT Stormwater Management Plan;

(c) Within 30 months of the effective date of this Rule, the NCDOT shall implement the approved Stormwater Management Plan; and

(d) Upon implementation, the NCDOT shall submit annual reports to the Division summarizing its activities in implementing each of the requirements in Item (4) of this Rule.

(7) RELATIONSHIP TO OTHER REQUIREMENTS. The NCDOT may in its program submittal under Sub-Item (6)(b) of this Rule request that the Division accept the NCDOT's implementation of another stormwater program or programs, such as NPDES stormwater requirements, as satisfying one or more of the requirements set forth in Item (4) of this Rule. The Division shall provide determination on acceptability of any such alternatives prior to requesting Commission approval of NCDOT programs as required in Sub-Item (6)(b) of this Rule. The NCDOT shall include in its program submittal technical information demonstrating the adequacy of the alternative requirements.

Authority G.S. 143-214.1; 143-214.5; 143-214.5(i); 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-

215.6B; 143-215.6C; 143-282(d); 143-215.8B(b); 143B-282(c); 143B-282(d; S.L. 2005-190.

15A NCAC 02B .0272 RIPARIAN BUFFER MITIGATION FEES

The following is the process for payment of fees to mitigate riparian buffer impacts as allowed under rules in this subchapter. These fees shall be paid to the Riparian Buffer Restoration Fund administered by the North Carolina Ecosystem Enhancement Program. Persons who wish to use this option shall first meet the criteria established for doing so in the buffer rules in this subchapter that reference this Rule. Such buffer rules include, but may not be limited to, 15A NCAC 02B .0242, .0244, .0260, and .0268.

(1) PAYMENT TO THE RIPARIAN BUFFER RESTORATION FUND. Persons who choose to satisfy their mitigation determination by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund as allowed here shall use the following procedure:

(a) SCHEDULE OF FEES: The amount of payment into the Fund shall be based on the costs of riparian buffer restoration. The payment amount shall be determined by multiplying the acres or square feet of mitigation required under other rules in this Subchapter by an initial value of seventy cents per square foot or thirty thousand four hundred and ninety two dollars per acre ($2/acre). This initial per-acre rate shall be adjusted in January of each year by staff of the NC Ecosystem Enhancement Program based upon the construction cost index factor published every December in the Engineering News Record.

(b) The required fee shall be submitted to the N.C. Ecosystem Enhancement Program (NC EEP), 1652 Mail Service Center, Raleigh, NC 27699-1652 prior to any activity that results in the removal or degradation of the protected riparian buffer for which a "no practical alternatives" determination has been made pursuant to requirements of other rules in this Subchapter.

(c) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to requirements of other rules in this Subchapter.

Authority G.S. 143-214.1; 143-214.5; 143-214.5(i); 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-282(d); 143-215.8B(b); 143B-282(c); 143B-282(d; S.L. 2005-190.

SECTION .0300 - ASSIGNMENT OF STREAM CLASSIFICATIONS

Note: This Rule has incorporated previously proposed amendments as published in the 21:20 North Carolina Register, and are delineated by italicized text.

15A NCAC 02B .0311 CAPE FEAR RIVER BASIN

(a) The Cape Fear River Basin Schedule of Classifications and Water Quality Standards may be inspected at the following places:

(1) the Internet at http://h2o.enr.state.nc.us/csw/; and

(2) the North Carolina Department of Environment and Natural Resources:

(A) Winston-Salem Regional Office
585 Waughtown Street
Winston-Salem, North Carolina

(B) Fayetteville Regional Office
225 Green Street
Systel Building Suite 714
Fayetteville, North Carolina

(C) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina

(D) Washington Regional Office
943 Washington Square Mall
Washington, North Carolina

(E) Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, North Carolina

(F) Division of Water Quality
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

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

(1) March 1, 1977;
(2) December 13, 1979;
(3) December 14, 1980;
(4) August 9, 1981;
(5) April 1, 1982;
(6) December 1, 1983;
(7) January 1, 1985;
(8) August 1, 1985;
(9) December 1, 1985;
(10) February 1, 1986;
(11) July 1, 1987;
(12) October 1, 1987;
(13) March 1, 1988;
(14) June 1, 1988;
(15) July 1, 1988;
(16) January 1, 1990;
(17) August 1, 1990;
(18) August 3, 1992;
(19) September 1, 1994;