N.C. DEPARTMENT OF TRANSPORTATION

GREEN

Guided Reduction of Excess Environmental Nutrients

STORMWATER MANAGEMENT PROGRAM

Jordan Lake Watershed

Version 1.0 | October 2012

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

NCDOT
North Carolina Department of Transportation

NCDOT Highway Stormwater PROGRAM

STORMWATER MANAGEMENT PROGRAM
for New Development in the **Jordan Lake** Watershed

Version 1.0|October2012

GREEN N.C. DEPARTMENT OF TRANSPORTATION
Guided Reduction of Excess Environmental Nutrients

Prepared for:

NC Department of Transportation
Hydraulics Unit
1590 Mail Service Center
Raleigh, NC 27699-1590
919.707.6733

NC Department of Transportation
Roadside Environmental Unit
1557 Mail Service Center
Raleigh, NC 27699-1557
919.707.2920

Prepared by:

URS
1600 Perimeter Park Drive
Suite 400
Morrisville, NC 27560
919.461.1100

Stormwater Management Program

for New Development in the **Jordan Lake** Watershed

TABLE OF CONTENTS

1.0 Background

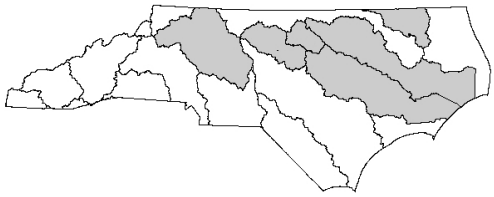
In 2008, the North Carolina Environmental Management Commission (EMC) approved the Jordan Reservoir Water Supply Nutrient Rules (Jordan Lake Rules or Rules) (NCDENR, 2011), which established a nutrient management strategy for the B. Everett Jordan Reservoir (Jordan Lake) designed to reduce algal growth in the lake (Rules provided in Appendix A-C).

As part of these rules, contributors of nutrients to Jordan Lake, including the North Carolina Department of Transportation (NCDOT), are required to reduce their loading of total nitrogen and total phosphorous in order to meet percent reduction goals to restore water quality standards in the lake. The first phase of the Jordan Lake nutrient management strategy requires NCDOT to develop and implement a Stormwater Management Program for all ***new development*** activities. This document describes NCDOT's Stormwater Management Program for New Development, which addresses nutrient runoff from new and widened roads and new non-road development. Table 1 presents NCDOT's implementation schedule for new development activities.

Table 1. NCDOT Jordan Lake Rule implementation start date

New and widening road program	January 2013
New non-road development program	January 2013
Riparian buffer protection program	2009

1.1 Nutrient Management in North Carolina

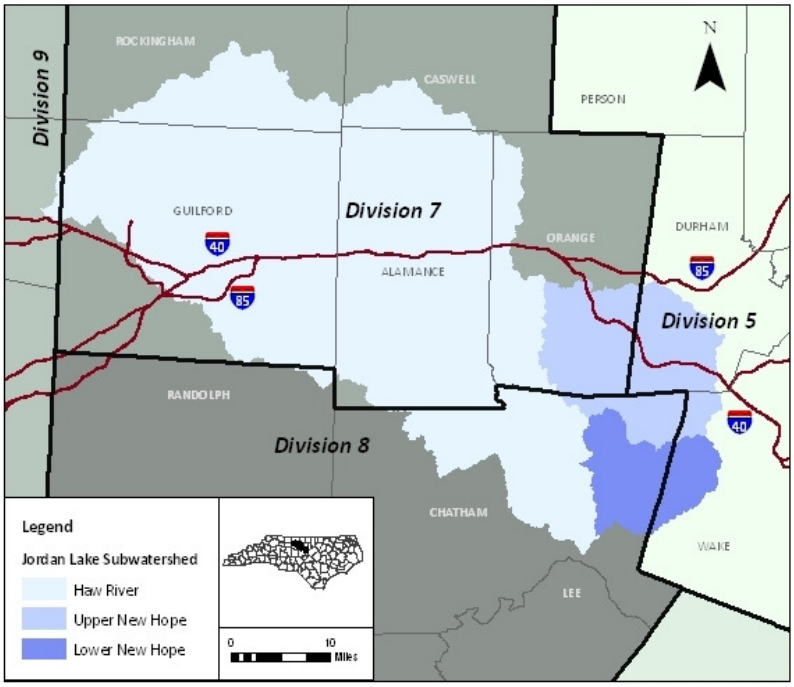


Selected North Carolina watersheds with eutrophication concerns

Management of excessive nutrient loading to receiving streams has been, and continues to be, a widespread effort in North Carolina. Prevalent eutrophication and algal blooms in the mid-1970s to 1980s and publicized fish kills in the mid-1990s have elevated the issue of nutrient management to the forefront of environmental programs in North Carolina. The EMC first began addressing nutrient issues in the Chowan River Basin in 1979 when the occurrence of nuisance algal blooms led to its designation as a Nutrient Sensitive Water (NSW). Since that time, similar water quality concerns have emerged in the Neuse River and Tar-Pamlico River Basins and the Jordan Lake, Falls Lake, and High Rock Lake watersheds. As the monitoring efforts of the North Carolina Department of Environment and Natural Resources (NCDENR) have expanded and the collective understanding of nutrient issues has improved, the EMC has increasingly directed resources to managing nutrient loads into North Carolina rivers, lakes, and estuaries.

1.2 NCDOT's Approach to Nutrient Management

NCDOT's response to nutrient management is focused on proactive compliance that is fair, reasonable, and proportionate to its contribution. NCDOT has managed nutrients in the highway environment through riparian area compliance, National Pollutant Discharge Elimination System (NPDES) stormwater requirements, scientific research, and taking active roles in state technical advisory committees. The Jordan Lake Rules apply to all existing and new development, as defined in 15A North Carolina Administrative Code (NCAC) 02B .0263, that lies within or partially within the Jordan Lake watershed. The affected area includes portions of NCDOT Divisions 5, 7, 8, and 9, as shown in the adjacent figure.



Jordan Lake watershed and NCDOT Divisions

2.0 Introducing GREEN

NCDOT directs, plans, constructs, maintains, and operates the largest state-maintained roadway system in the nation. The size, diversity, and geographic extent of this transportation network is reflected in NCDOT's numerous and unique storm-water management initiatives. In 1998, NCDOT established the Highway Stormwater Program (HSP) to manage its NPDES stormwater permit requirements as well as other state stormwater programs. The HSP is an NCDOT-wide initiative to manage and minimize the effects of stormwater runoff from NCDOT facilities.

Given NCDOT's responsibility for more than 3,900 miles of roadway in the Jordan Lake watershed (see figure in Appendix D), a cost effective nutrient management strategy tailored to transportation is necessary. In order to address existing and future nutrient management needs, NCDOT initiated the **G**uided **R**eduction of **E**xcess **E**nvironmental **N**utrients (**GREEN**) Program to integrate and enhance NCDOT's stormwater and nutrient management practices and to support NCDOT's compliance with the Jordan Lake Rules. The GREEN Program functions in collaboration with NCDOT's existing NPDES and state stormwater management activities and is designed to achieve the following objectives (also depicted on page 4):

1. Maintain compliance and accountability.
2. Increase NCDOT staff awareness of nutrient-related water quality issues.
3. Leverage and optimize existing environmental programs for nutrient management.

Jordan Lake at sunrise

4. Collect and document scientific research related to nutrient loading from NCDOT roadways and industrial areas.
5. Facilitate communication with resource agencies and the public.

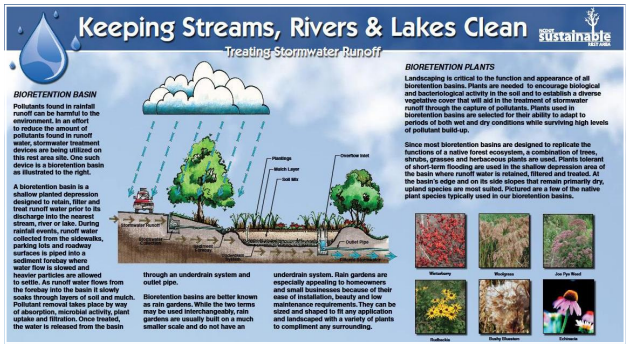
Although the GREEN Program will ultimately encompass requirements for both new and existing development, this document specifically addresses new development activities required by the Jordan Lake Rules.

N.C. DEPARTMENT OF TRANSPORTATION GREEN Guided Reduction of Excess Environmental Nutrients

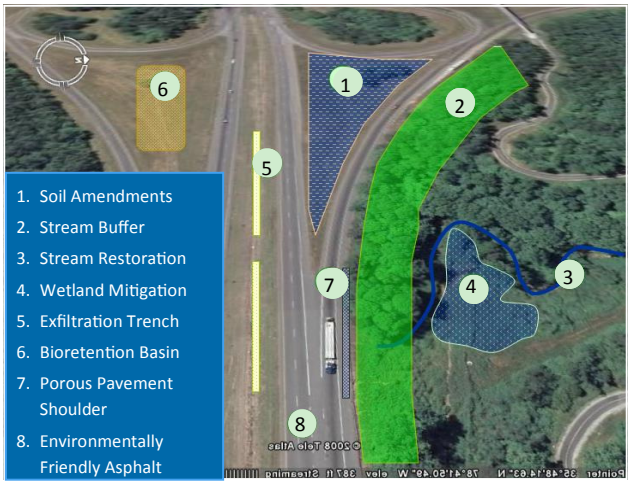
*In order to address near term and future nutrient management needs, NCDOT has initiated the **G**uided **R**eduction of **E**xcess **E**nvironmental **N**utrients (**GREEN**) Program to integrate and enhance NCDOT's stormwater and nutrient management practices and to support NCDOT's compliance with the Jordan Lake Rules.*

GREEN PROGRAM OBJECTIVES

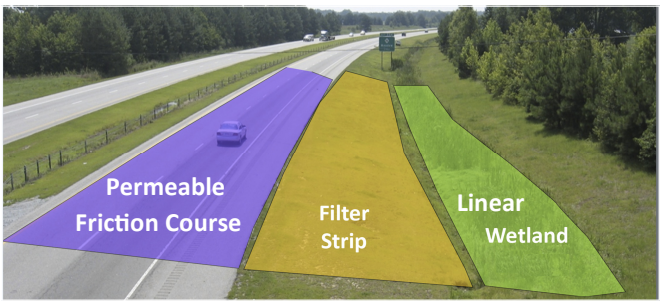
1 Maintain compliance and accountability



2 Increase NCDOT staff awareness of nutrient-related water quality issues



3 Leverage and optimize existing environmental programs for nutrient management



4 Collect and document scientific research related to nutrient loading from NCDOT roadways and industrial areas

5 Facilitate communication with resource agencies and the public

3.0 New Development Program

In keeping with the GREEN Program's mission and objectives, NCDOT crafted a new development post-construction stormwater runoff control program for nutrient management (hereafter referred to as the New Development Program). Under 15A NCAC 02B .0271 (4)(c), NCDOT is required to

> *Establish a program for post-construction stormwater runoff control for new development, including new and widening NCDOT roads and facilities. The program shall establish a process by which the Division [of Water Quality] shall review and approve stormwater designs for new NCDOT development projects. The program shall delineate the scope of vested projects that would be considered as existing development, and shall define lower thresholds of significance for activities considered new development.*

To facilitate implementation of the new development program, project categories have been defined as **new road development** (see Table 2 for examples) and **new non-road development** (see Table 3 for examples).

For the purposes of compliance with the Jordan Lake Rules, new road development is defined as any new road construction, road widening, road upgrade, or other activity occurring within the NCDOT right-of-way (ROW) or easement, with the exception of projects listed in Table 3 on page 6. The new road development category encompasses projects such as interchange modifications, roadway widening, addition of acceleration and deceleration lanes, median crossovers, new and widened hydraulic structures for stream crossings (e.g., bridges and culverts), and installation of structures for safety and signage. Projects involving permanent new built-upon area added within the NCDOT ROW or easement that supports pedestrian mobility associated with a new or existing roadway corridor, such as bus shelters and sidewalks, are also considered new road development projects. Examples of new road development projects are provided in Table 2.

Secondary road in the Haw River subwatershed

Table 2. New road development project examples[1]

New location roadways
Roadway widening
New acceleration/deceleration lanes
Interchange modifications
New bridges or culverts
Bridge or culvert replacements
Median crossovers
Sidewalks within NCDOT ROW
Bus shelters within NCDOT ROW
Greenway Trails within the NCDOT ROW
Weigh stations
Borrow and waste sites associated with NCDOT road construction[2]

[1] This table provides examples of new road development projects and is not intended to be an exhaustive list.

[2] Borrow and waste sites may be operated by contractors and may be outside the NCDOT ROW.

New non-road development is defined as any new NCDOT facility or any modification to an existing facility that increases the built-upon area and that does not otherwise qualify as new road development. Typically, new non-road development projects are not within the NCDOT ROW. These projects can include construction of new or upgrades to existing maintenance yards, rest areas, office buildings, training facilities, parking lots, or other non-road development. Examples of new non-road development projects are provided in Table 3.

Road and non-road projects that result in no net increase in built-upon area and provide a level of stormwater control equal to the previous development are deemed as existing development projects and are not subject to the New Development Program. When it is uncertain as to which category a new development project belongs, NCDOT staff and the regional NCDENR Division of Water Quality (NCDWQ) representative will coordinate to determine proper project category based on the definitions and examples provided in this section.

Sections 3.1 and 3.2 provide a discussion of the proposed compliance process for new road and new non-road development projects based on the unique requirements associated with each project category. Vested projects considered existing development are defined for both new road and new non-road development projects. In addition, projects that are considered to be insignificant for nutrient loading are defined through specific project examples. The proposed process for review and approval of stormwater designs, including compliance with the riparian buffer protection requirements in 15A NCAC 02B .0267 and .0268, is also outlined in the following two sections for each project category.

Table 3. New non-road development project examples[1]

Rest areas
Maintenance yards
Office buildings
Training facilities
Parking lots
Railroad facilities
Material testing laboratories
Material storage facilities
Park-and-ride lots

Notes:
Project examples assume a net increase of new built-upon area.
[1] This table provides examples of new non-road development projects and is not intended to be an exhaustive list.

Permeable pavers installed at a rest area

3.1 New Development Program - New and Widening Road Projects

The new development program for new and widening road projects must meet the purposes defined in Rule 15A NCAC 02B .0271 (1) applicable to roads which includes achieving the highest practicable level of treatment; ensuring that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows; and protecting the water supply uses within the watershed. Achieving these goals will be implemented through use of the nutrient removal capabilities of vegetated riparian buffers. Rules .0271 (4)(c)(i) and .0271 (4)(f) define the criteria for compliance with these goals. Rule .0267 defines the buffers that are protected and activities inside and outside the protected buffers which are regulated. Additionally requirements for the maintenance of diffuse flow through riparian buffers are set forth in Rule .0267 (8). Rule .0268 provides requirements for mitigation of unavoidable impacts to riparian buffers.

3.1.1 Review and Approval Process

> **15 NCAC 02B .0271**
>
> *(4)(c)(i) For new and widening roads, compliance with the riparian buffer protection requirements of Rules 15A NCAC 02B .0267 and .0268 which are expected to achieve a 30 percent nitrogen reduction efficiency in runoff treatment through either diffuse flow into buffers or other practices shall be deemed as compliance with the purposes of this Rule.*
>
> *(4)(f) Address compliance with the riparian buffer protection requirements of 15A NCAC 02B .0267 and .0268 through a Division [of Water Quality] approval process.*

Rules 15A NCAC 02B .0271 (4), (4)(c)(i), and (4)(c)(f) require that NCDOT "establish a process by which the Division [of Water Quality] shall review and approve storm-water designs for new NCDOT development projects" and "address compliance with the riparian buffer protection requirements of 15A NCAC 02B .0267 and .0268 through a Division [of Water Quality] approval process." For many years, riparian buffer protection requirements have been in place across North Carolina in selected water-sheds, including the Neuse River Basin, the Tar-Pamlico River Basin, the Randleman Lake watershed, and along the main stem of the Catawba River. To address these requirements, staff from NCDOT and NCDWQ regional offices have collaborated over the years to develop project review and approval processes to ensure accountability and compliance. New location roadway projects typically involve an extensive planning process during which NCDWQ reviews the project alignment to ensure NCDOT has made every reasonable effort to avoid impacts to the buffer, wetlands, and other water resources. During the design process NCDWQ reviews the project yet again to ensure the projection of water quality standards and that NCDOT is in compliance with the requirements of Rule .0267 if NCDOT proposes a use within the buffer. Such uses are carefully reviewed by NCDWQ to ensure the maintenance of the buffer's nutrient removal functions as defined in Rule .0267. Uses not provided for in the Table of Uses are considered Prohibited and not protective of the nutrient removal functions of the buffer and thereby are not an option for NCDOT. Since the effective date of the .0267 and .0268 Rules in 2009, NCDOT and NCDWQ have extended this riparian buffer protection review and approval process to the Jordan Lake watershed. Given that the current process has been demonstrated to be successful and sustainable, NCDOT does not propose any modifications under the Jordan Lake GREEN New Development Program.

3.1.2 Vested Projects

Biofiltration conveyance system installed in an NCDOT ROW

15A NCAC 02B .0271 (4) requires that the New Development Program "delineate the scope of vested projects that would be considered as existing development." To facilitate consistency with the existing riparian buffer protection review and approval process, vested new and widening road projects are defined in rule 15A NCAC 02B .0267 (6) for existing uses that are present and ongoing (see Appendix A). The provisions in Rule .0267 (6) were developed, in part, with new roadway projects in mind and have been successfully integrated into the riparian buffer protection review and approval process for many years. NCDOT does not propose any modifications to the existing vesting provisions under the Jordan Lake GREEN New Development Program.

3.1.3 Insignificant Projects and Activities

NCDOT will comply with the applicable riparian buffer protection requirements of Rules 15A NCAC 02B .0267 and .0268. Under these rules 'insignificant projects' are not expressly recognized, therefore NCDOT is not proposing to create a definition for insignificant projects.

3.2 New Development Program - New Non-Road Projects

New NCDOT non-road development must achieve the Jordan Lake nutrient load reduction goals in the manner set forth in Rule 15A NCAC 02B .0271 (4)(c)(ii) (rule text provided on page 9).

For the purposes of compliance with the Jordan Lake Rules, new non-road development is defined as any new NCDOT-owned and operated facility installation or significant facility upgrade that results in a net increase of built-upon area and that does not meet the criteria for new road development. Generally, new non-road development is located outside of the NCDOT ROW. Examples of non-road development projects include, but are not limited to, office facilities, parking lots, rest areas, and maintenance yards. Refer to Table 3 for additional project examples of new non-road development.

Stormwater control measure implemented at a NCDOT county maintenance yard

Nutrient reduction goals have been established for new non-road development that is not vested and that exceeds a defined lower threshold of significance (described in Section 3.2.3). These requirements are outlined in 15A NCAC 02B .0271 (4)(c)(ii) (provided on page 9), where specific nitrogen and phosphorus load reduction goals for each subwatershed within the Jordan Lake watershed are defined. The load reduction goals are established relative to either an area-weighted average loading rate of all developable lands as of a baseline period defined in 15A NCAC 02B .0262, or to a percentage reduction based on the project specific predevelopment loading rate. In order to meet these loading rate targets, NCDOT may consider the use of engineered stormwater control measures (SCMs)[1]. The effectiveness of these controls to remove nutrients will be assessed using the NCDOT Jordan Lake Stormwater Load Accounting Tool (NCDOT-JLSLAT) (see summary box on page 9 for additional information) or through another calculation method that is acceptable to NCDWQ. Per 15A NCAC 02B .0271 (4)(c)(iii), NCDOT has the "option of partially offsetting its nitrogen and phosphorus loads by implementing or funding offsite management measures." These off-site measures are allowable only after attaining a maximum nitrogen loading rate of eight pounds per acre per year (lb/ac/yr) on the developed site. NCDOT may also make offset payments to the North Carolina Ecosystem Enhancement Program when necessary to meet site-specific reduction requirements. In addition to maintaining compliance with the Jordan Lake Rules, new non-road development is also required to meet the conditions of NCDOT's statewide NPDES permit and other stormwater rules where applicable. Hence, every new NCDOT non-road development project will undergo a thorough stormwater management evaluation to assess compliance with multiple sets of requirements in the Jordan Lake watershed.

Bioretention basin and public educational display at a NCDOT rest area

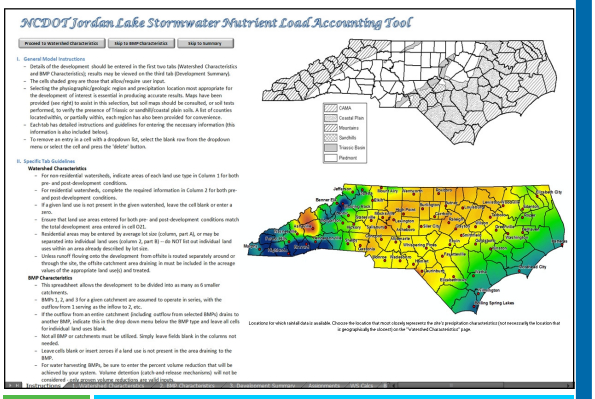
[1] Please refer to Appendix E for a description of NCDOT's Inspection and Maintenance Program

15 NCAC 02B .0271 (4)(c)(ii)

New non-road development shall achieve and maintain the nitrogen and phosphorus percentage load reduction goals established for each subwatershed in 15A NCAC 02B .0262 relative to either area-weighted average loading rates of all developable lands as of the baseline period defined in 15A NCAC 02B .0262, or to project-specific pre-development loading rates. Values for area-weighted average loading rate targets for nitrogen and phosphorus, 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 NCDOT shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in Item (8) or other equivalent method acceptable to the Division [of Water Quality]. Where stormwater treatment systems are needed to meet these targets, they shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. Such systems shall be assumed to achieve the nutrient removal efficiencies identified in the most recent version of the Stormwater Best Management Practices Manual published by the Division [of Water Quality] provided that they meet associated drawdown and other design specifications included in the same document. The NCDOT may propose to the Division [of Water Quality] nutrient removal rates for practices currently included in the BMP [best management practices] Toolbox required under its NPDES stormwater permit, or may propose revisions to those practices or additional practices with associated nutrient removal rates. The NCDOT may use any such practices approved by the Division [of Water Quality] to meet loading rate targets identified in this Sub-Item. New non-road development shall also control runoff flows to meet the purpose of this Rule regarding protection of the nutrient functions and integrity of receiving waters.

NCDOT Jordan Lake Nutrient Accounting Tool

North Carolina State University (NCSU), in conjunction with NCDENR, developed JLSLAT as a tool for addressing the Jordan Lake nutrient requirements. JLSLAT is a Microsoft Excel (2007) workbook that allows a user to specify site conditions, such as physiographic province, soil hydrologic group, and precipitation station, and estimate nutrient loading from the pre- and post-development land use conditions, as well as model the impact of various SCMs on post-development stormwater runoff quality.



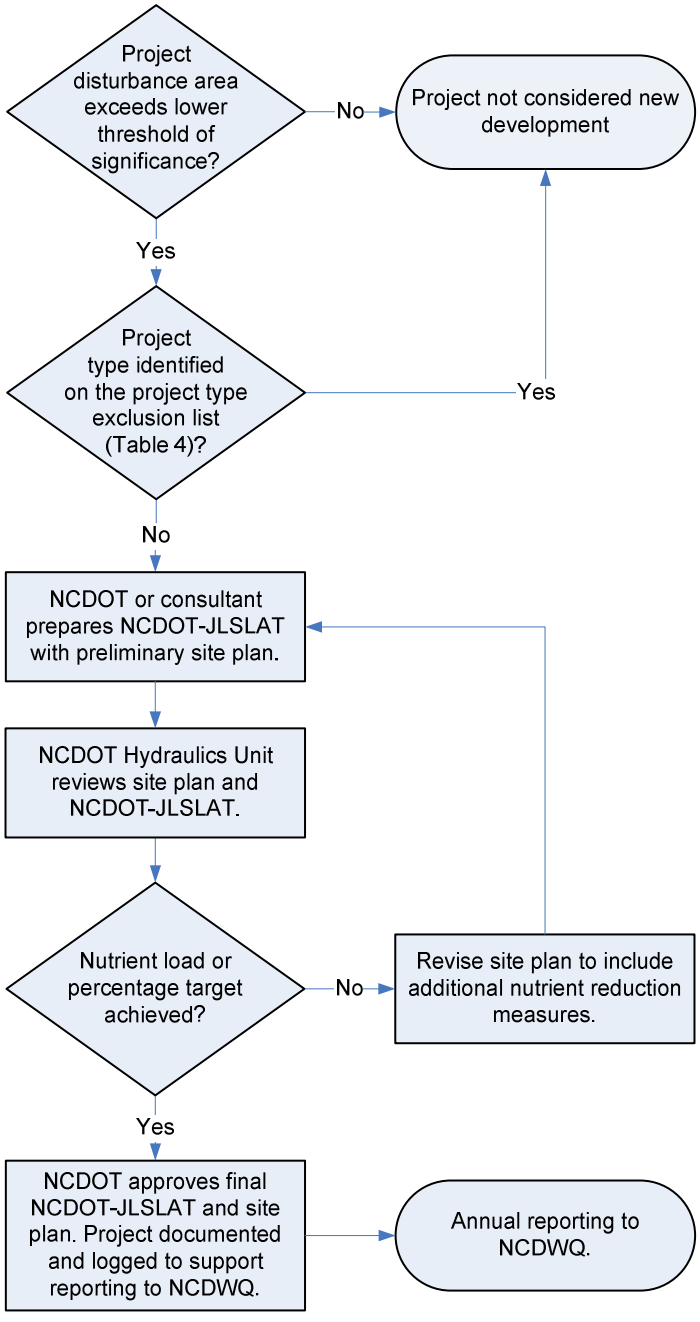
NCDOT Jordan Lake Stormwater Nutrient Accounting Tool

The Jordan Lake Rules acknowledge the unique nature of NCDOT areas and associated nutrient controls and states, "NCDOT may propose to [NCDWQ] nutrient removal rates for practices currently included in the BMP Toolbox required under its NPDES stormwater permit, or may propose revisions to those practices or additional practices with associated nutrient removal rates" (15A NCAC 02B .0271 (4)(c)(ii)). Based on an extensive review and assessment of NCDOT's water quality research data, NCDOT, in coordination with NCSU, built upon the existing JLSLAT (Version 1.1) framework and methodology by updating JLSLAT to include land use and land cover (LULC) categories and SCMs specific to industrial facilities, rest areas, and non-roadway projects under NCDOT jurisdiction. The NCDOT accounting tool, NCDOT-JLSLAT, addresses the unique LULC conditions at NCDOT facilities and incorporates the range of NCDOT's nutrient management practices to estimate nitrogen and phosphorus loading from NCDOT project sites. On July 12, 2012, the EMC formally approved NCDOT-JLSLAT for new non-road development projects for use in demonstrating compliance with new non-road development nutrient reduction requirements identified in 15A NCAC 02B .0271.

In a separate report titled, "Transportation Land Use/Land Cover and Stormwater Control Measure Updates for the Jordan Lake Nutrient Accounting Tool" (NCDOT, 2012), NCDOT has prepared a description of the steps taken to adapt JLSLAT for NCDOT applications for use in project planning in the Jordan Lake watershed. NCDOT-JLSLAT users are referred the JLSLAT User's Manual (NCSU, 2011) for instructions on how to use the tool.

3.2.1 Review and Approval Process

Rule 15A NCAC 02B .0271 (4) requires that NCDOT "establish a process by which the Division [of Water Quality] shall review and approve stormwater designs for new NCDOT development projects." To meet this requirement NCDOT will internally review and approve projects pursuant to NCDOT's NPDES Post Construction Stormwater Program (PCSP) to meet the load reduction goals. NCDOT's PCSP defines implementation of the NCDOT BMP Toolbox, NCDOT staff and contractor training to implement the Toolbox and incorporates watershed strategies to control runoff from new NCDOT development and redevelopment. NCDOT will incorporate the EMC-approved Jordan Stormwater Management Program into the PCSP and submit an update of the PCSP to NCDWQ for review and approval. Projects that rely on the use of NCDOT-JLSLAT will be certified by a NC licensed professional and require that the professional affirm that the tool was used in conformity with the EMC-approved version or another method acceptable to NCDWQ (See Appendix F for a copy of the certification language). Site plan and NCDOT-JLSLAT reviews will be supervised through NCDOT's Hydraulics Unit. Upon approval, NCDOT will enter the results of these reviews along with certification of completed projects into a rule compliance database and report on these activities annually as part of NCDOT's NPDES stormwater permit. Annual reporting will include a list of certified projects, descriptions of the projects and associated SCMs, project-specific copies of NCDOT-JLSLAT and other supporting calculations, an accounting of nutrient offset payments and offsite management measures, and a summary of changes in nutrient loads associated with these activities. Similar to other NPDES permit requirements, NCDOT's new non-road development activities under the GREEN Program will receive regular NCDWQ review and assessment under existing NPDES auditing procedures. Assigning NCDOT the responsibility of compliance and oversight will promote an efficient and environmentally protective approach that reduces the overall level of NCDWQ resources needed to implement the Rule. This internal review and approval process also allows streamlined organization within NCDOT that promotes the objectives of the GREEN Program discussed earlier and results in improved coordination, efficiency, and timeliness of projects.



Review and approval process for new non-road development

In implementing the new non-road development rule, NCDOT will do the following:

1. Maintain high standards and expectations for environmental stewardship.
2. Provide nutrient training to NCDOT staff and contractors.
3. Determine rule applicability on a project-specific basis.
4. Apply NCDOT-JLSLAT, or other NCDWQ approved method, during site design to ensure load reduction compliance accountability.
5. Design, review, and approve new non-road development projects.
6. Confirm that project design criteria meets the new non-road development requirements.
7. Oversee construction activities and validate the implementation of design specifications.
8. Consult with and report annually to NCDWQ.

The review and approval process is illustrated on page 10. To identify the appropriate internal review and approval process, NCDOT first determines whether a new project is a road project or a non-road project (not shown in the figure). Once the project is identified as new non-road development, the area of disturbance is determined. Disturbance, for the purposes of compliance with this rule, means any land-disturbing activity associated with construction or development of a project. If the project exceeds the lower threshold of significance for project size (described in Section 3.2.3 below), results in a net increase in built-upon area, and is not listed as an excluded project (described in Section 3.2.3 below), then the nutrient reduction requirements for new non-road development apply. For these projects, NCDOT-JLSLAT will be used during the preliminary design process to determine if the proposed development exceeds project-specific predevelopment loading rates or if it exceeds the area-weighted average loading rate targets [15A NCAC 02B .0271 (4)(c)(ii)]. If the project exceeds both requirements, NCDOT will implement SCMs such that either the pre- to post-development loading rate target or the subwatershed-specific area-weighted annual loading rate target is met. Alternatively, if prohibitive site constraints exist, NCDOT will consider implementing or funding offsite management measures per 15A NCAC 02B .0271 (4)(c)(iv). Prior to preliminary plan approval, NCDOT will perform an additional, independent review to confirm that the preliminary site plan achieves compliance with the NCDOT new non-road development rules. Upon NCDOT approval, the preliminary site plan will be approved and the final NCDOT-JLSLAT and site plan will be formally documented and logged for future reporting to NCDWQ. Annually NCDOT will report to NCDWQ on measures taken to comply with the new non-road development rules.

3.2.2 Vested Projects

For the purposes of rule compliance, new non-road development projects that have been submitted to the State Construction Office for funding approval, or otherwise approved for funding by NCDOT prior to the North Carolina EMC's approval of NCDOT's New Development Program, will be considered vested. Vested projects will be considered as existing development and managed accordingly.

3.2.3 Insignificant Projects and Activities

The new non-road development rule also requires NCDOT to define "lower thresholds of significance for activities considered new development" (15A NCAC 02B .0271 (4)(c)). In 15A NCAC 02B .0265 (3)(a), the threshold for stormwater management for new development is defined as "…new development 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, multifamily residential, or local government property." Because NCDOT non-road facilities typically encompass a variety of facility types and activities (as shown in Table 3), the lower threshold for significance selected for all non-road facilities is one-half acre.

The Rules recognize that NCDOT is engaged in a wide variety of projects and allow for a list of insignificant projects to be proposed as part of the stormwater program. For this reason, NCDOT developed a project type exclusion list (Table 4) to identify projects that are not subject to the new non-road development rules (15A NCAC 02B .0271 (4)(c)(ii); rule text provided on page 9). These project types were selected after careful review of the Minimum Criteria List (19A NCAC 02F .0102), which lists the "types and classes of threshold of activities at and below which environmental documentation under North Carolina Environmental Policy Act is not required." The project types listed in Table 4 include those from the Minimum Criteria List that are not considered to be subject to the new non-road development Rules. These projects are subject to new road development Rules.

Table 4. Projects not considered new non-road development

Noise barriers or alterations to existing public buildings to provide for noise reduction
Landscaping projects
Activities involving maintenance or repair needed to maintain the original function of an existing project or facility without expansion or change in use
Sampling, monitoring, and related data-gathering activities

In summary, the new non-road development Rules apply to projects that meet each of the three criteria:

1. Disturb one-half acre or more
2. Result in a net increase in built-upon area
3. Are not included in the project type exclusion list (Table 4).

4.0 Contacts

Andy McDaniel, PE
NC Department of Transportation
Hydraulics Unit
1590 Mail Service Center
Raleigh, NC 27699-1590
919.707.6737
amcdaniel@ncdot.gov

Ken Pace, PE
NC Department of Transportation
Roadside Environmental Unit
1557 Mail Service Center
Raleigh, NC 27699-1557
919.707.2920
kpace@ncdot.gov

5.0 References

NCDENR, 2003. *Department of Transportation's Minimum Criteria*. 19A NCAC 02F. Raleigh, NC: North Carolina Office of Administrative Hearings.

NCDENR, 2011. *Jordan Lake Rules*. 15A NCAC 02B .0262-.0311 Raleigh, NC: North Carolina Office of Administrative Hearings. Approved August 11, 2009. Amended September 1, 2011.

NCDOT, 2012. *Transportation Land Use/Land Cover and Stormwater Control Measure Updates for the Jordan Lake Nutrient Accounting Tool.* Prepared by URS Corporation for the NC Department of Transportation. Final version date June 2012 and approved by the NC EMC on July 12, 2012.

NCSU, 2011. *Jordan/Falls Lake Stormwater Load Accounting Tool (Version 1.0) User's Manual*. Revised January 31, 2011.

Stormwater Management Program

for New Development in the **Jordan Lake** Watershed

TABLE OF APPEDICIES

Appendix A

Jordan Water Supply Nutrient Rules

(as approved by the NC Rules Review Commission on or before November 20, 2008)

TABLE OF CONTENTS

15A NCAC 02B .0262 JORDAN WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE

PURPOSE. The purpose of this Rule, 15A NCAC 02B .0263 through .0273 and .0311(p) shall be to restore and maintain nutrient-related water quality standards in B. Everett Jordan Reservoir; protect its classified uses as set out in 15A NCAC 02B .0216, 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. These Rules, as further enumerated in Item (3) of this Rule, together shall constitute the Jordan water supply nutrient strategy, or Jordan nutrient strategy. Additional provisions of this Rule include establishing the geographic and regulatory scope of the Jordan nutrient strategy, defining its relationship to existing water quality regulations, setting specific nutrient mass load goals for Jordan Reservoir, providing for the use of adaptive management to restore Jordan Reservoir, and citing general enforcement authorities. The following provisions further establish the framework of the Jordan water supply nutrient strategy:

1) SCOPE. B. Everett Jordan Reservoir is hereafter referred to as Jordan Reservoir. All lands and waters draining to Jordan Reservoir are hereafter referred to as the Jordan watershed. Jordan Reservoir and all waters draining to it have been supplementally classified as Nutrient Sensitive Waters (NSW) pursuant to 15A NCAC 02B .0101(e)(3) and 15A NCAC 02B .0223. 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 shall be classified WS-V. The requirements of all of these water supply classifications shall be retained and applied except as specifically noted in Item (6) of this Rule and elsewhere within the Jordan nutrient strategy. Pursuant to G.S. 143-214.5(b), the entire Jordan watershed shall be designated a critical water supply watershed and through the Jordan nutrient strategy given additional, more stringent requirements than the state minimum water supply watershed management requirements. These requirements supplement the water quality standards applicable to Class C waters, as described in Rule .0211 of this Section, which apply throughout the Jordan watershed.
2) STRATEGY GOAL. Pursuant to G.S. 143-215.1(c5), 143-215.8B, and 143B-282(c) and (d) of the Clean Water Responsibility Act of 1997, the Environmental Management Commission establishes the 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 specified in Item (5) of this Rule, and provides for adaptive management of the strategy and goal, as specified in Item (8) of this Rule.
3) RULES ENUMERATED. The second rule in the following list provides definitions for terms that are used in more than one rule of the Jordan nutrient strategy. An individual rule may contain additional definitions that are specific to that rule. The rules of the Jordan nutrient strategy shall be titled as follows:
    a) Rule .0262 Purpose and Scope;
    b) Rule .0263 Definitions;
    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 Riparian Buffer Mitigation Fees to the NC Ecosystem Enhancement Program;
    i) Rule .0270 Wastewater Discharge Requirements;
    j) Rule .0271 Stormwater Requirements for State and Federal Entities;
    k) Rule .0272 Fertilizer Management;
    l) Rule .0273 Options for Offsetting Nutrient Loads; and
    m) Rule .0311 Cape Fear River Basin.

15A NCAC 02B .0262 JORDAN WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE (Continued)

4) RESERVOIR ARMS AND SUBWATERSHEDS. For the purpose of the Jordan nutrient strategy, Jordan Reservoir is divided into three arms and the Jordan watershed is divided into three tributary 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 to the Upper New Hope arm of the reservoir and the 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 draining into the Upper and Lower New Hope arms.

5) NUTRIENT REDUCTION GOALS. Each arm of the lake has reduction goals, total allowable loads, point source wasteload allocations, and nonpoint source load allocations 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 reduction goals and allocations are to be met collectively by the sources regulated under the Jordan nutrient strategy. The reduction goals are expressed in terms of a percentage reduction in delivered loads from the baseline years, 1997-2001, while allocations are expressed in pounds per year of allowable delivered load. Each arm and subwatershed shall conform to its respective allocations for nitrogen and phosphorus as follows:

   a) The at-lake nitrogen load reduction goals for the arms of Jordan Reservoir are as follows:

      i) The Upper New Hope arm has a 1997-2001 baseline nitrogen load of 986,186 pounds per year and a TMDL reduction goal of 35 percent. The resulting TMDL includes a total allowable load of 641,021 pounds of nitrogen per year: a point source mass wasteload allocation of 336,079 pounds of nitrogen per year, and a nonpoint source mass load allocation of 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 and a nitrogen TMDL capped at the baseline nitrogen load. The resulting TMDL includes a total allowable load of 221,929 pounds of nitrogen per year: a point source mass wasteload allocation of 6,836 pounds of nitrogen per year, and a nonpoint source mass load allocation of 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 and a TMDL percentage reduction of 8 percent. The resulting TMDL includes a total allowable load of 2,567,000 pounds of nitrogen per year: a point source mass wasteload allocation of 895,127 pounds of nitrogen per year, and a nonpoint source mass load allocation of 1,671,873 pounds of nitrogen per year.

   b) The at-lake phosphorus load reduction goals for the arms of Jordan Reservoir are as follows:

      i) The Upper New Hope arm has a 1997-2001 baseline phosphorus load of 87,245 pounds per year and a TMDL percentage reduction of five percent. The resulting TMDL includes a total allowable load of 82,883 pounds of phosphorus per year: a point source mass wasteload allocation of 23,108 pounds of phosphorus per year, and a nonpoint source mass load allocation of 59,775 pounds of phosphorus per year.

15A NCAC 02B .0262 JORDAN WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE (Continued)

ii) The Lower New Hope arm has a 1997-2001 baseline phosphorus load of 26,574 pounds per year and a phosphorus TMDL capped at the baseline phosphorus load. The resulting TMDL includes a total allowable load of 26,574 pounds of phosphorus per year: a point source mass wasteload allocation of 498 pounds of phosphorus per year, and a nonpoint source mass load allocation 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 and a TMDL percentage reduction of five percent. The resulting TMDL includes a total allowable load of 359,641 pounds of phosphorus per year: a point source mass wasteload allocation of 106,001 pounds of phosphorus per year, and a nonpoint source mass load allocation of 253,640 pounds of phosphorus per year.

c) The allocations established in this Item may change as a result of allocation transfer between point and nonpoint sources to the extent provided for in rules of the Jordan nutrient strategy and pursuant to requirements on the sale and purchase of load reduction credit set out in 15A NCAC 02B .0273.

6) 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 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, and .0271 through .0273, except as specifically stated in any of these Rules. For the remaining waters of Jordan watershed, the requirements of water supply Rule .0218 and Rules .0263 through .0273 and .0311 shall be applied. For WS-II, WS-III, and WS-IV waters, the retained requirements of 15A NCAC 02B .0214 through .0216 are 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.

7) APPLICABILITY. Types of parties responsible for implementing rules within the Jordan nutrient strategy and, as applicable, their geographic scope of responsibility, are identified in each rule. The specific local governments responsible for implementing Rules .0265, .0266, .0267, .0268, and .0273 shall be as follows:

a) Rules .0265, .0266, .0267, .0268, and .0273 shall be implemented by all incorporated municipalities, as identified by the Office of the Secretary of State, with planning jurisdiction within or partially within the Jordan watershed. Those municipalities currently are:

i) Alamance;

ii) Apex;

iii) Burlington;

iv) Carrboro;

v) Cary;

vi) Chapel Hill;

vii) Durham;

viii) Elon;

ix) Gibsonville;

15A NCAC 02B .0262 JORDAN WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE (Continued)

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; and
xxvi) Whitsett.

b) Rules .0265, .0266, .0267, .0268, and .0273 shall be implemented by the following counties for the portions of the counties where the municipalities listed in Sub-Item (7)(a) do not have an implementation requirement:

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

c) A unit of government may arrange through interlocal agreement or other instrument of mutual agreement for another unit of government to implement portions or the entirety of a program required or allowed under any of the rules listed in Item (3) of this Rule to the extent that such an arrangement is otherwise allowed by statute. The governments involved shall submit documentation of any such agreement to the Division. No such agreement shall relieve a unit of government from its responsibilities under these Rules.

8) ADAPTIVE MANAGEMENT. The Division shall evaluate the effectiveness of the Jordan nutrient strategy after at least ten years following the effective date and periodically thereafter as part of the review of the Cape Fear River Basinwide Water Quality Plan. The Division shall base its evaluation on, at a minimum, 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 assessments. The Division may also develop additional watershed modeling or other source characterization work. Any nutrient response modeling and monitoring on which any recommendation for adjustment to strategy goals 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 (5) of this Rule. Any modification to these rules as a result of such evaluations would require additional rulemaking.

15A NCAC 02B .0262 JORDAN WATER SUPPLY NUTRIENT STRATEGY: PURPOSE AND SCOPE (Continued)

9) LIMITATION. The Jordan nutrient strategy 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 nutrient strategy.

10) ENFORCEMENT. Failure to meet requirements of Rules .0262,.0264, .0265, .0266, .0267, .0268, .0269, .0270, .0271, .0272 and .0273 of this Section may result in imposition of enforcement measures as authorized by G. S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

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

Eff. August 11, 2009.

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

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

1) "Allocation" means the mass quantity of nitrogen or phosphorus that a discharger, group of dischargers, nonpoint source, or collection of nonpoint sources is assigned as part of a TMDL. For point sources, possession of allocation does not authorize the discharge of nutrients but is prerequisite to such authorization through a NPDES permit.
2) "Applicator" means the same as defined in 15A NCAC 02B .0202(4).
3) "Channel" means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water.
4) "DBH" means diameter at breast height of a tree measured at 4.5 feet above ground surface level.
5) "Delivered," as in delivered allocation, load, or limit, means the allocation, load, or limit that is measured or predicted at Jordan Reservoir. A delivered value is equivalent to a discharge value multiplied by the transport factor for that discharge location.
6) "Development" means the same as defined in 15A NCAC 02B .0202(23).
7) "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 watershed. A discharge value is equivalent to a delivered value divided by the transport factor for that discharge location.
8) "Ditch or canal" means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial or intermittent streams.
9) "Ephemeral stream" means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.
10) "Existing development" means development, other than that associated with agricultural or forest management activities, that meets one of the following criteria:
    a) It either is built or has established a vested right based on statutory or common law as interpreted by the courts, for projects that do not require a state permit, as of the effective date of either local new development stormwater programs implemented under 15A NCAC 02B .0265 or, for projects requiring a state permit, as of the applicable compliance date established in 15A NCAC 02B .0271(5) and (6); or
    b) It occurs after the compliance date set out in Sub-Item (4)(d) of Rule .0265 but does not result in a net increase in built-upon area.
13) "Intermittent stream" means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the continuous conveyance of water.
14) "Jordan nutrient strategy," or "Jordan water supply nutrient strategy"means the set of 15A NCAC 02B .0262 through .0273 and .0311(p).
15) "Jordan Reservoir" means the surface water impoundment operated by the US Army Corps of Engineers and named B. Everett Jordan Reservoir, as further delineated for purposes of the Jordan nutrient strategy in 15A NCAC 02B .0262(4).
16) "Jordan watershed" means all lands and waters draining to B. Everett Jordan Reservoir.

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

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

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

19) "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.

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

21) "Nitrogen" or "total nitrogen" means the sum of the organic, nitrate, nitrite, and ammonia forms of nitrogen in a water or wastewater.

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

23) "Nutrients" means total nitrogen and total phosphorus.

24) "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.

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

26) "Phosphorus" or "total phosphorus" means the sum of the orthophosphate, polyphosphate, and organic forms of phosphorus in a water or wastewater.

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

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

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

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

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

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

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

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

34) "Tree" means a woody plant with a DBH equal to or exceeding five inches or a stump diameter exceeding six inches.

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

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

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

Eff. August 11, 2009.

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 Rule 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 goals set out in 15A NCAC 02B .0262 within six to nine years, as set out in Sub-Item (5)(b) of this Rule. 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 may be eligible to obtain cost share and technical assistance from the NC Agriculture Cost Share Program and similar federal programs to contribute to their counties' nutrient reductions. A Watershed Oversight Committee, and 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 Jordan watershed from agricultural operations located both within and outside of the Jordan watershed. As better information becomes available from ongoing research on atmospheric nitrogen loading to the Jordan 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 thresholds in this Item in addition to requirements for animal operations set forth in general permits issued pursuant to G.S. 143-215.10C. Nothing in this Rule shall be deemed to allow the violation of any assigned surface water, groundwater, or air quality standard by any agricultural operation, including any livestock or poultry operation below the size thresholds in this Item. This Rule does not require specific actions by any individual person or operation if the county or counties in which they conduct operations can collectively achieve their nutrient reduction targets, in the manner described in Item (5) of this Rule, within six 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) 20 or more swine not kept in a feedlot, or 150 or more swine kept in a feedlot;

      iv) 120 or more sheep;

      v) 130 or more goats;

      vi) 650 or more turkeys;

      vii) 3,500 or more chickens; or

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

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

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. The membership, roles and responsibilities of these committees are set forth in Items (7) and (8) of this Rule. Committees' activities shall be guided by the following constraints:

   a) Within three years after the effective date of this Rule, the Watershed Oversight Committee shall provide the Commission with an initial assessment of the extent to which agricultural operations in each subwatershed have achieved the nitrogen goals identified in Item (1) of this Rule through activities conducted since the baseline period. The Watershed Oversight Committee shall use the accounting process described in Items (7) and (8) of this Rule to make its assessment. Should the Commission determine at that time that a subwatershed nitrogen goal has not been achieved, then Local Advisory Committees shall be formed in that subwatershed according to Item (8) of this Rule to further progress toward the goal by developing local strategies to guide implementation.

   b) For any subwatershed identified in Sub-Item (5)(a) of this Rule as not having achieved its nitrogen goal within three years, the Commission shall within six years after the effective date of this Rule again determine, with input from the Watershed Oversight Committee, whether the subwatershed has achieved its nitrogen goal. Should the Commission determine at that time that a subwatershed has not achieved its goal, then it shall require additional best management practice (BMP) implementation as needed to ensure that the goal is met within nine years after the effective date of this Rule. The Commission may also consider alternative recommendations from the Watershed Oversight Committee based on its assessment of the practicability of agricultural operations meeting the subwatershed goal. Should the Commission require some form of individual compliance, then it shall also subsequently approve a framework proposed by the Watershed Oversight Committee for allowing producers to obtain credit through offsite measures. Such offsite measures shall meet the requirements of 15A NCAC 02B .0273(2) – (4). The Commission shall review compliance with the phosphorus goals within six years of the effective date and shall require additional BMP implementation within any subwatershed as needed to meet its goal within an additional three years from that date.

   c) Should a committee called for under Sub-Item (5)(a) of this Rule not form nor follow through on its responsibilities such that a local strategy is not implemented in keeping with Item (8) of this Rule, the Commission shall require all persons subject to this Rule in the affected area to implement BMPs as needed to meet the goals of this Rule.

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

   a) the initial accounting required under Sub-Item (5)(a) of this Rule determines that agricultural operations have not already collectively met the nitrogen reduction goals, persons subject to this Rule shall register their operations with their Local Advisory Committee according to the requirements of Item (8) of this Rule within four years after the effective date of this Rule. Within six years after the effective date of this Rule, such persons are not required to implement any specific BMPs but may elect to contribute to the collective local nutrient strategy by implementing any BMPs they choose that are recognized by the Watershed Oversight Committee as nitrogen-reducing or phosphorus-reducing BMPs.

   b) Should a local strategy not achieve its goal after six years, operations within that local area may face specific implementation requirements, as described under Sub-Item (5)(b) of this Rule.

   c) Producers may generate nitrogen loading reduction credit for sale to parties subject to or operating under other nutrient strategy rules in the Jordan watershed under either of the following circumstances and only pursuant to the conditions of Sub-Item (7)(b)(vii) of this Rule and 15A NCAC 02B .0273:

      ii) If the subwatershed in which they implement nitrogen-reducing practices has achieved its nitrogen goal.

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

ii) At any point during the implementation of this Rule, a pasture-based livestock operation that implements an excluded buffer BMP on part or all of its operation may sell that portion of the nitrogen reduction credit attributed to the buffer restoration aspect of the practice, while the credit attributed to the exclusion aspect shall accrue to the achievement or maintenance of the goals of this Rule.

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

a) MEMBERSHIP. The Director shall be responsible for forming 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 six 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 except where a greater number is noted. The Director may appoint a replacement at any time for an interest in Sub-Items (7)(a)(vi) through (7)(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) Three environmental interests, at least two of which are residents of the Jordan watershed;

vii) General farming interests;

viii) Pasture-based livestock interests;

ix) Equine livestock interests;

x) Cropland farming interests; and

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

b) ROLE. The Watershed Oversight Committee shall:

i) Develop tracking and accounting methods for nitrogen and phosphorus loss. Submit methods to the Water Quality Committee of the Commission for approval based on the standards set out in Sub-Item (7)(c) of this Rule within two years after the effective date of this Rule;

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

iii) Within three 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. Present findings to the Water Quality Committee of the Commission;

iv) Review, approve, and summarize local nutrient strategies if required pursuant to Sub-Item (5)(a) of this Rule and according to the timeframe identified in Sub-Item (8)(c)(ii) of this Rule. Provide these strategies to the Division;

v) Establish requirements for, review, approve and summarize local nitrogen and phosphorus loss annual reports as described under Sub-Item (8)(e) of this Rule, and present these reports to the Division annually, until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of this Rule. Present the annual report six years after the effective date to the Commission. Should that annual report find that a subwatershed has not met its nitrogen goal, include an assessment in that report of the practicability of producers achieving the goal within nine

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

years after the effective date, and recommendations to the Commission as deemed appropriate;

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

vii) Investigate and, if feasible, develop an accounting method to equate implementation of specific nitrogen-reducing practices on cropland or pastureland to reductions in nitrogen loading delivered to streams. Quantify the nitrogen credit generated by such practices for purposes of selling or buying credits. Establish criteria and a process as needed for the exchange of nitrogen credits between parties meeting the criteria of either Sub-Item (5)(b) or Sub-Item (6)(c) of this Rule with parties subject to or operating under other nutrient strategy rules in the Jordan watershed pursuant to the requirements of 15A NCAC 02B .0273. Approve eligible trades, and ensure that such practices are accounted for and tracked separately from those contributing to the goals of this Rule.

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

i) The nitrogen method shall quantify baseline and annual total nitrogen losses from agricultural operations in each county, each subwatershed, and for the entire Jordan watershed;

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

iii) The nitrogen method shall include a means of estimating incremental nitrogen 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 methods shall be refined as research and technical advances allow;

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

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

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.

8) LOCAL ADVISORY COMMITTEES. Local Advisory Committees required by Sub-Item (5)(a) of this Rule shall be formed for each county within the applicable subwatershed within three years and three months after 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 for in this Item. It shall terminate upon a finding by the Commission that it is no longer needed to fulfill the purposes of this Rule. Each Local Advisory Committee shall consist of:

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

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

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

iii) One representative of the North Carolina Department of Agriculture and Consumer Services whose regional assignment includes the county;

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

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

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

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 appoint members described in Sub-Items (8)(a)(i), (8)(a)(ii), (8)(a)(iv), and (8)(a)(v) of this Rule. The Director of the Division of Water Quality, 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 (8)(a)(iii) and (8)(a)(vi) of this Rule from persons nominated by nongovernmental organizations whose members produce or manage agricultural commodities in each county. Members of the Local Advisory Committees shall serve at the pleasure of their appointing authority.

c) ROLE. The Local Advisory Committees shall:

i) Conduct a registration process for persons subject to this Rule. This registration process shall be completed within 48 months after 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) Develop local nutrient control strategies for agricultural operations, pursuant to Sub-Item (8)(d) of this Rule, to meet the nitrogen and phosphorus goals of this Rule. Strategies shall be submitted to the Watershed Oversight Committee no later than 46 months after the effective date of this Rule;

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 reports to the Watershed Oversight Committee, pursuant to Sub-Item (8)(e) of this Rule, annually until such time as the Commission determines that annual reports are no longer needed to fulfill the purposes of this Rule.

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

i) Local nutrient control strategies shall be designed to achieve the required nitrogen loss reduction goals and qualitative trends in indicators of agricultural phosphorus loss within six 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.

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

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

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

Eff. August 11, 2009.

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

(See S.L. 2009-216; S.L. 2009-484)

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;
   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 those areas of new development, as defined in 15A NCAC 02B .0263, that lie within the Jordan watershed and the planning jurisdiction of a municipality or county that is 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, to be implemented in areas described in Item (2) of this Rule, based on the standards in this Item:
   a) An approved stormwater management plan shall be required for all proposed new development 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, multifamily residential, or local government 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 in a given subwatershed shall not exceed the unit-area mass loading rates applicable to that subwatershed as follows for nitrogen and phosphorus, respectively, 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 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 equivalent method acceptable to the Division.
      ii) Proposed new development undertaken by a local government solely as a public road project shall be deemed compliant with the purposes of this Rule if it meets the riparian buffer protection requirements of 15A NCAC 02B .0267 and .0268.
      iii) Proposed new development subject to NPDES, water supply, and other statemandated stormwater regulations shall comply with those regulations in addition to the other requirements of this Sub-Item. Proposed new development in any water supply watershed in the 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;
      iv) 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 pursuant to standards specific to each practice as provided in the July 2007 version of the Stormwater Best Management Practices Manual published by the Division, or other at least technically equivalent standards acceptable to the Division. 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;

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

v) 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 stormwater control at least equal 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 either to 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);

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

vii) Developers shall have the option of offsetting part of their nitrogen and phosphorus loads by implementing or funding offsite management measures as follows: Before using offsite offset options, a development shall attain a maximum nitrogen loading rate on-site of four pounds per acre per year for single-family, detached and duplex residential development and eight pounds per acre per year for other development, including multi-family residential, commercial and industrial and shall meet any requirements for engineered stormwater controls described in Sub-Item (3)(a)(iii) of this Rule. Offsite offsettingmeasures shall achieve at least equivalent reductions in nitrogen and phosphorus loading to the remaining reduction needed onsite to comply with the loading rate targets set out in Sub-Item (3)(a)(i) of this Rule. A developer may make offset payments to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program. A developer may use an offset option provided by the local government in which the development activity occurs. A developer may propose other offset measures to the local government, including providing his or her own offsite offset or utilizing a private seller. All offset measures identified in this Sub-Item shall meet the requirements of 15A NCAC 02B .0273 (2) through (4).

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-Item (3)(a) of this Rule for the life of the new development; and

d) The following requirements in water supply 15A NCAC 02B .0104 shall apply to new development throughout the 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); and

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

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

a) Within 18 months after the effective date of this Rule, the Division shall submit a model local stormwater program, including a model local ordinance, 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 accounting tool shall utilize nutrient efficiencies and associated design criteria established for individual BMPs in the July 2007 version of the Stormwater Best Management Practices Manual published by the Division, or other at least technically equivalent standards acceptable to the Division. The Division

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

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 and model ordinance, subject local governments shall submit stormwater management programs, in conjunction with similar requirements in 15A NCAC 02B .0266, to the Division for preliminary approval. These local programs shall meet or exceed the requirements in Item (3) of this Rule;

c) Within 15 months after the Commission's approval of the model local stormwater program, the Division shall provide recommendations to the Commission on local stormwater programs. The Commission shall either approve the programs or require changes based on the standards set out in Item (3) of this Rule. Should the Commission require changes, the applicable local government shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

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

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

History Note: Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259;

Eff. August 11, 2009;

See S.L. 2009-216 and S.L. 2009-484.

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

Note: This rule was disapproved by SL 2009-216. See Session Law for replacement language.

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

(See S.L. 2009-216 and S.L. 2009-484)

Protection of the nutrient removal and other water quality benefits 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 to protect and preserve existing riparian buffers throughout the Jordan watershed as generally described in 15A NCAC 02B .0262, 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 governments shall establish programs to meet or exceed the minimum requirements of this Rule. The requirements of this Rule shall supersede all locally implemented 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 subject to this Rule may choose to implement more stringent requirements, including requiring additional buffer width.

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, and signage.

   b) 'Airport Facilities' means all properties, facilities, buildings, structures, and activities that satisfy or otherwise fall within the scope of one or more of the definitions 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 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, in which case they are included in the definition of 'airport facilities'.

   c) 'Forest management plan' means as defined in Chapter 160A-458.5(4).

   d) '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.

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

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

f) '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; or for hardwoods and wetland species, 16-inch DBH or greater or 24-inch or greater stump diameter.

g) '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, riprap, or gabions, while providing bank stabilization, shall not be considered stream restoration.

h) '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.

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

j) 'Temporary road' means a road constructed temporarily for equipment access to build or replace hydraulic conveyance structures such as bridges, culverts, pipes or water dependent structures, or to maintain public traffic during construction.

3) APPLICABILITY. This Rule applies to all landowners and other persons conducting activities in the Jordan watershed, including state and federal entities, and to all local governments in the Jordan watershed, as described in 15A NCAC 02B .0262. Local governments shall develop riparian buffer protection programs for approval by the Commission, incorporating the minimum standards set out throughout this Rule and shall apply the requirements of this Rule throughout their jurisdictions within the Jordan watershed except where The Division shall exercise jurisdiction. For the following types of buffer activities in the Jordan watershed, wherever local governments are referenced in this Rule, the Division shall implement applicable requirements to the exclusion of local governments:

a) Activities conducted under the authority of the State.

b) Activities conducted under the authority of the United States.

c) Activities conducted under the authority of multiple jurisdictions.

d) Activities conducted under the authority of local units of government.

e) Forest harvesting activities described in Item (14) of this Rule.

f) Agricultural activities.

g) Activities conducted in a location where there is no local government program implementing NPDES stormwater requirements, Water Supply Watershed requirements, or a voluntary local stormwater or buffer initiative at the time of the activity.

4) BUFFERS PROTECTED. The following minimum criteria shall be used for identifying regulated buffers:

a) This Rule shall apply to activities conducted within, or outside of with impacts upon, 50-foot wide riparian buffers directly adjacent to surface waters in the Jordan watershed (intermittent streams, perennial streams, lakes, reservoirs and ponds), excluding wetlands.

b) 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.

c) 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:

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

i) The most recent 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).

iii) The maps approved by the Commission as more accurate than those identified in Sub-Item (4)(c)(i) and (4)(c)(ii) of this Rule.

d) Where the specific origination point of a stream regulated under this Item is in question, upon request of the Division or another party, the local government shall make an on-site determination. A local government representative who has successfully completed the Division's Surface Water Identification Training Certification course, its successor, or other equivalent training curriculum approved by the Division, shall establish that point using 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/documents/NC_Stream_ID_Manual.pdf or from the Division of Water Quality, 401/Wetlands Unit, 1650 Mail Service Center, Raleigh, NC, 27699-1650. A local government may accept the results of a site assessment made by another party who meets these criteria. Any disputes over on-site determinations made according to this Sub-Item shall be referred to the Director in writing. The Director's determination is subject to review as provided in Articles 3 and 4 of G.S. 150B.

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

f) Parties subject to this rule shall abide by all State rules and laws regarding waters of the state including but not limited to 15A NCAC 02H .0500, 15A NCAC 02H .1300, and Sections 401 and 404 of the Federal Water Pollution Control Act.

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

h) No new clearing, grading, or development shall take place nor shall any new building permits be issued in violation of this Rule.

5) EXEMPTION BASED ON ON-SITE DETERMINATION. When a landowner or other affected party including the Division believes that the maps have inaccurately depicted surface waters, he or she shall consult the appropriate local government. Upon request, a local government representative who has successfully completed the Division's Surface Water Identification Training Certification course, its successor, or other equivalent training curriculum approved by the Division, shall make an on-site determination. Local governments may also accept the results of site assessments made by other parties who have successfully completed such training. Any disputes over on-site determinations 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 a site evaluation reveals any of the following cases:

a) Man-made ponds and lakes that are not part of a natural drainage way that is classified in accordance with 15A NCAC 02B .0100, including ponds and lakes created for animal watering, irrigation, or other agricultural uses. A pond or lake is part of a natural drainage way when it is fed by an intermittent or perennial stream or when it has a direct discharge point to an intermittent or perennial stream.

b) Ephemeral streams.

c) The absence on the ground of a corresponding intermittent or perennial stream, lake, reservoir, or pond.

d) Ditches or other man-made water conveyances, other than modified natural streams.

6) EXEMPTION WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall not apply to uses that are existing and ongoing; however, this Rule shall apply at the time an existing, ongoing use is changed to another use. Change of use shall involve the initiation of any activity that does not meet either of the following criteria for existing, ongoing activity:

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGEY: PROTECTION OF EXISTING RIPARIAN BUFFERS (Continued)

a) It was present within the riparian buffer as of the effective date of a local program enforcing this Rule and has continued to exist since that time. For any Division-administered activities listed in Item (3) of this Rule, 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 occupied by 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 th effective date of a local program enforcing this Rule, or for Division-administered activities listed in Item (3) of this Rule as of the effective date of 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) Projects or proposed development that are determined by the local government 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 program enforcing this Rule, and prior to the effective date of this Rule for Division-administered activities listed in Item (3) of this Rule;

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 program implementing this Rule, and prior to the effective date of this Rule for Division-administered activities listed in Item (3) of this Rule;

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 program enforcing this Rule, and prior to the effective date of this Rule for state and federal entities; or

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 program enforcing this Rule, or the written approval of the Division prior to the effective date of this Rule for state and federal entities.

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 top of the bank 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 top of the bank.

ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone One shall begin at the normal water level and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to a vertical line marking the normal water level.

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 in 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

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

30 feet, measured horizontally on a line perpendicular to a vertical line marking the normal water level.

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 in 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 prior to its entry into the buffer and reestablishing vegetation as follows:

a) 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;

b) Periodic corrective action to restore diffuse flow shall be taken as necessary and shall be designed to impede the formation of erosion gullies; and

c) As set out in Items (7) and (9) of this Rule, no new stormwater conveyances are allowed through the buffers except for those specified in Item (9) of this Rule addressing stormwater management ponds, drainage ditches, roadside ditches, and stormwater conveyances.

9) TABLE OF USES. The following chart sets out potential new uses within the buffer, or outside the buffer with impacts on the buffer, and categorizes them as exempt, allowable, or allowable with mitigation. All uses not categorized as exempt, allowable, or allowable with mitigation are considered prohibited and may not proceed within the riparian buffer or outside the buffer if the use would impact the buffer, unless a variance is granted pursuant to Item (12) of this Rule. The requirements for each category are given in Item (10) 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	X		
• 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	
Airport facilities:			
• Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer		X	
• Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer			X
• Activities necessary to comply with FAA requirements (e.g. radar uses or landing strips)[1]		X	
Archaeological activities	X		
Bridges		X	

*To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGEY: PROTECTION OF EXISTING RIPARIAN BUFFERS (Continued)

Use	Exempt*	Allowable*	Allowable with Mitigation*
Canoe Access 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 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	X		
• 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	
Drainage ditches, roadside ditches and stormwater conveyances through riparian buffers: • New stormwater flows to existing drainage ditches, roadside ditches, and stormwater conveyances provided flows do not alter or result in the need to alter the conveyance and are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies.	X		
• Realignment of existing roadside drainage ditches retaining the design dimensions, provided that no additional travel lanes are added and the minimum required roadway typical section is used based on traffic and safety considerations.		X	
• New or altered 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		X	
• 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 are employed.			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	X		
• Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer		X	
• In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer		X	
• In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer			X

*To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGEY: PROTECTION OF EXISTING RIPARIAN BUFFERS (Continued)

Use	Exempt*	Allowable*	Allowable with Mitigation*
Driveway impacts other than crossing of a stream or other surface waters subject to this Rule			X
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 (14) of this Rule			
Fertilizer application: one-time application to establish vegetation	X		
Grading and revegetation in Zone Two provided that diffuse flow and the health of existing vegetation in Zone One is not compromised and disturbed areas are stabilized until they are revegetated.	X		
Greenway/hiking trails designed, constructed and maintained to maximize nutrient removal and erosion protection, minimize adverse effects on aquatic life and habitat, and protect water quality to the maximum extent practical.		X	
Historic preservation	X		
Maintenance access on modified natural streams: a grassed travel way on one side of the water body when less impacting alternatives are not practical. The width and specifications of the travel way shall be only that needed for equipment access and operation. The travel way shall be located to maximize stream shading.		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
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	

*To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGEY: PROTECTION OF EXISTING RIPARIAN BUFFERS (Continued)

Use	Exempt*	Allowable*	Allowable with Mitigation*
Ponds created by impounding streams and not used as stormwater BMPs: • 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 in Zone Two:
• Sheds and gazebos 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 greater than 150 square feet per lot.
• Wooden slatted decks and associated steps, provided the use meets the requirements of Items (7) and (8) of this Rule:
  • Deck at least eight feet in height and no vegetation removed from Zone One.
  • Deck less than eight feet in height or vegetation removed from Zone One.
		X
		
		X
			
			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
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 X

*To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGEY: PROTECTION OF EXISTING RIPARIAN BUFFERS (Continued)

Use	Exempt*	Allowable*	Allowable with Mitigation*
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		X	
• Greater than 2,500 square feet of buffer impact			X
Stormwater BMPs:			
• Wet detention, bioretention, and constructed wetlands in Zone Two if diffuse flow of discharge is provided into Zone One		X	
• Wet detention, bioretention, and constructed wetlands in Zone One			X
Scientific studies and stream gauging	X		
Streambank or shoreline stabilization		X	
Temporary roads, provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that tree planting may occur during the dormant season. A one-time application of fertilizer may be used to establish vegetation: At the end of five years the restored buffer shall comply with the restoration criteria in Item (8) of 15A NCAC 02B .0268:			
• Less than or equal to 2,500 square feet of buffer disturbance	X		
• Greater than 2,500 square feet of buffer disturbance		X	
• Associated with culvert installation or bridge construction or replacement.		X	
Temporary sediment and erosion control devices, provided that the disturbed area is restored to pre-construction topographic and hydrologic conditions immediately after construction is complete and replanted immediately with comparable vegetation, except that tree planting may occur during the dormant season. A one-time application of fertilizer may be used to establish vegetation. At the end of five years the restored buffer shall comply with the restoration criteria in Item (8) of Rule 15A NCAC 02B .0268:			
• In Zone Two provided ground cover is established within timeframes required by the Sedimentation and Erosion Control Act, vegetation in Zone One is not compromised, and runoff is released as diffuse flow in accordance with Item (8) of this Rule.	X		
• 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.		X	
• In-stream temporary erosion and sediment control measures for work within a stream channel that is authorized under Sections 401 and 404 of the Federal Water Pollution Control Act.	X		
• In-stream temporary erosion and sediment control measures for work within a stream channel.		X	

*To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

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

Use	Exempt*	Allowable*	Allowable with Mitigation*
Utility, electric, aerial, perpendicular crossings of streams and other surface waters subject to this Rule[2,3,5]:			
• Disturb equal to or less than 150 linear feet of riparian buffer	X		
• Disturb greater than 150 linear feet of riparian buffer		X	
Utility, electric, aerial, other than perpendicular crossings[5]:			
• Impacts in Zone Two		X	
• Impacts in Zone One[2,3]			X
Utility, electric, underground, perpendicular crossings[3,4,5]:			
• Disturb less than or equal to 40 linear feet of riparian buffer	X		
• Disturb greater than 40 linear feet of riparian buffer		X	
Utility, electric, underground, other than perpendicular crossings[4]:			
• Impacts in Zone Two	X		
• Impacts in Zone One[1]	X		
Utility, non-electric, perpendicular crossings of streams and other surface waters subject to this Rule[3,5]:			
• 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	X		
• Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width		X	
• 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		X	
• 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			X
• Disturb greater than 150 linear feet of riparian buffer			X
Utility, non-electric, other than perpendicular crossings[4,5]:			
• Impacts in Zone Two		X	
• Impacts in Zone One[1]			X
Vegetation management:			
• Emergency fire control measures provided that topography is restored	X		
• Mowing or harvesting of plant products in Zone Two	X		
• Planting vegetation to enhance the riparian buffer	X		
• Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised	X		
• Removal of individual trees that are in danger of causing damage to dwellings, other structures or human life, or are imminently endangering stability of the streambank.	X		

*To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGEY: PROTECTION OF EXISTING RIPARIAN BUFFERS (Continued)

Use	Exempt*	Allowable*	Allowable with Mitigation*
Vegetation management: (Continued) • Removal of individual trees which are dead, diseased or damaged.	X		
• Removal of poison ivy	X		
• Removal of invasive exotic 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		
Vehicular access roads leading to water-dependent structures as defined in 15A NCAC 02B .0202, provided they do not cross the surface water and have minimum practicable width not exceeding ten feet.		X	
Water dependent structures as defined in 15A NCAC 02B .0202 where installation and use result in disturbance to riparian buffers.		X	
Water supply reservoirs: • New reservoirs where a riparian buffer that meets the requirements of Items (7) and (8) of this Rule is established adjacent to the reservoir		X	
• 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
Water wells • Single family residential water wells	X		
• All other water wells		X	
Wetland, stream and buffer restoration that results in impacts to the riparian buffers: • Wetland, stream and buffer restoration that requires Division approval for the use of a 401 Water Quality Certification	X		
• Wetland, stream and buffer restoration that does not require Division approval for the use of a 401 Water Quality Certification		X	
Wildlife passage structures		X	

*To qualify for the designation indicated in the column header, an activity must adhere to the limitations defined for it in a given listing as well as the requirements established in Item (10) of this Rule.

[1] Provided that:

- No heavy equipment is used in Zone One.
- Vegetation in undisturbed portions of the buffer is not compromised.
- Felled trees are removed by chain. No permanent felling of trees occurs in protected buffers or streams.
- Stumps are removed only by grinding.
- At the completion of the project the disturbed area is stabilized with native vegetation.
- Zones one and two meet the requirements of Sub-Items (7) and (8) of this Rule.

[2] 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, as defined in Item (11) of this Rule.

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

- 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.

[3] Provided that poles or aerial infrastructure shall not be installed within 10 feet of a water body unless the local government completes a no practical alternative evaluation as defined in Item (11) of this Rule.

[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, 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.
- Measures shall be taken upon completion of construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

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

10) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated in Item (9) of this Rule as exempt, allowable, and allowable with mitigation within a riparian buffer shall have the following requirements:

   a) EXEMPT. Uses designated as exempt are permissible without local government authorization provided that they adhere to the limitations of the activity as defined in Item (9). In addition, 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.

   b) ALLOWABLE. Uses designated as allowable may proceed 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.

   c) ALLOWABLE WITH MITIGATION. Uses designated as allowable with mitigation may proceed 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 (13) of this Rule. These uses require written authorization from the local government.

11) DETERMINATION OF "NO PRACTICAL ALTERNATIVES."

   a) 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. The applicant shall certify that the project meets all the following criteria for finding "no practical alternatives":

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

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) The applicant shall also submit at least the following information in support of their assertion of "no practical alternatives":

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.

c) Within 60 days of a submission that addresses Sub-Item (11)(b) of this Rule, the local government shall review the entire project and make a finding of fact as to whether the criteria in Sub-Item (11)(a) have been met. A finding of "no practical alternatives" shall result in issuance of an Authorization Certificate. Failure to act within 60 days shall be construed as a finding of "no practical alternatives" and an Authorization Certificate shall be issued to the applicant unless one of the following occurs:

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

ii) The local government determines that the applicant has failed to furnish requested information necessary to the local government's decision;

iii) The final decision is to be made pursuant to a public hearing; or

iv) The applicant refuses access to its records or premises for the purpose of gathering information necessary to the local government's decision.

d) The local government may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of the riparian buffer protection program.

e) Any appeals of determinations regarding Authorization Certificates shall be referred to the Director. 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 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) For any variance request, the local government shall make a finding of fact as to whether there are practical difficulties or unnecessary hardships that prevent compliance with the riparian buffer protection requirements. A finding of practical difficulties or unnecessary hardships shall require that the following conditions are met:

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 shall consider whether the variance is the minimum possible deviation

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGEY: PROTECTION OF EXISTING RIPARIAN BUFFERS (Continued)

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, such that compliance with provisions of this rule would not allow reasonable use of the 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; and

vi) The hardship is rare or unique to the applicant's property.

b) For any variance request, the local government shall make a finding of fact as to whether 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) For any variance request, the local government shall make a finding of fact as to whether, in granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

d) MINOR VARIANCES. A minor variance request pertains to activities that will impact only Zone Two of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Sub-Items (11)(a) through (11)(c) 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 governments shall be made in writing to the Director. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

e) MAJOR VARIANCES. A major variance request pertains to activities that will impact any portion of Zone One or any portion of both Zones One and Two of the riparian buffer. If the local government has determined that a major variance request meets the requirements in Sub-Items (12)(a) through (12)(c) 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, the Commission shall review preliminary findings on major variance requests and take one of the following actions: approve, approve with conditions and stipulations, or deny the request. Appeals from a Commission decision on a major variance request are made on judicial review to Superior Court.

13) 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.

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

a) All the following measures shall apply in the entire riparian buffer as applicable:

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 waterbody;

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

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 as necessary to prevent or control the spread of 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 Division 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;

ix) High-intensity prescribed burns shall not be allowed; and

x) Application of fertilizer shall not be allowed except as necessary for permanent stabilization. Broadcast application of fertilizer 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. A plan drafted under either option shall meet the standards set out in this Item. 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 permitted for the purpose of selective timber harvesting where there is no other practical alternative for removal of individual trees provided activities comply with forest practice guidelines for water quality as defined in 15A NCAC 01I .0101 through .0209, and provided no equipment shall operate within the first 10 feet immediately adjacent to the stream except at stream crossings designed, constructed and maintained in accordance with Rule 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) In addition to the requirements of (b) in this Item, 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 unless listed as an exempt activity under Vegetation Management in the Table of Uses, Sub-Item (9) of this Rule;

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; and

iii) In Zone Two, harvesting and regeneration of the forest stand shall be allowed in accordance with 15A NCAC 01I .0100 through .0200 as enforced by the Division of Forest Resources.

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

a) For Division-administered activities listed in Item (3) of this Rule, the Division shall implement the requirements of this Rule as of its effective date;

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

b) Within two months after the effective date of this Rule, the Division shall submit a model local riparian buffer protection ordinance that embodies the standards set out in this Rule and 15A NCAC 02B .0268 to the Commission for approval;

c) Within six months after the Commission's approval of a model local buffer ordinance, local governments shall submit local programs to the Division for review based on the standards set out in this Rule and 15A NCAC 02B .0268. A local program shall also detail implementation including but not limited to such factors as a method for making 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/documents/NC_Stream_ID_Manual.pdf or at the 401/Wetlands Unit of the North Carolina Division of Water Quality at: Mail Service Center 1650, Raleigh, NC, 27699-1650, to establish the existence of streams;

d) Within one year after the Commission's approval of a model local buffer ordinance, the Division shall provide recommendations to the Commission on local buffer programs. The Commission shall either approve the programs or require changes based on the standards set out in this Rule and 15A NCAC 2B .0268. Should the Commission require changes, the applicable local government shall have two months to submit revisions, and the Division shall provide follow-up recommendations to the Commission within two months after receiving revisions;

e) Within two months after the Commission's approval of local buffer programs, local governments shall implement programs to ensure that existing land use activities and proposed development complies with local programs. A local government shall issue an approval for new development only if the development application proposes to avoid impacts to riparian buffers defined in Item (4) of this Rule, or where the application proposes to impact such buffers, it demonstrates that the applicant has done the following, as applicable:

i) Determined that the activity is exempt from requirements of this Rule;

ii) Received an Authorization Certificate from the Division pursuant to Item (11) of this Rule for uses designated as Allowable or Allowable with Mitigation;

iii) For uses designated as Allowable with Mitigation, received approval of a mitigation plan pursuant to 15A NCAC 02B .0268; and

iv) Received a variance pursuant to Item (12) of this Rule;

f) Upon implementation, local governments shall submit annual reports to the Division summarizing their activities in implementing the requirements of this Rule;

g) 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; and

h) LOCAL OVERSIGHT. The Division shall periodically inspect local programs to ensure that they are being implemented and enforced in keeping with the requirements of this Rule. Local governments shall maintain on-site records for a minimum of five years, and shall furnish a copy of these records to the Division within 30 days of receipt of a written request for them. Local programs' records shall include the following:

i) A copy of all variance requests;

ii) Findings of fact on all variance requests;

iii) Results of all variance proceedings;

iv) A record of complaints and action taken as a result of complaints; (

v) Records for stream origin calls and stream ratings; and

vi) Copies of all requests for authorization, records approving authorization and Authorization

15A NCAC 02B .0267 JORDAN WATER SUPPLY NUTRIENT STRATEGEY: PROTECTION OF EXISTING RIPARIAN BUFFERS (Continued)

Certificates.

16) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all other federal, state and local laws, regulations, and permits regarding streams, steep slopes, erodible soils, wetlands, floodplains, forest harvesting, surface mining, land disturbance activities, or any other landscape feature or water quality-related activity.

History Note: Authority 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d) S.L. 1999-329, s. 7.1.; S.L. 2005-190; S.L. 2006-259;

Eff. August 11, 2009;

See S.L. 2009-216 and S.L. 2009-484.

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 purpose of this Rule is to set forth the mitigation requirements that the local governments in the Jordan watershed and listed in 15A NCAC 02B .0262, and in the cases stated in 15A NCAC 02B .0267(3) the Division, shall apply to the riparian buffer protection program called for in 15A NCAC 02B .0267. 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. For the types of buffer activities listed in 15A NCAC 02B .0267(3), the Division shall apply the requirements of this Rule wherever local governments are referenced. The requirements of this Rule shall supersede all locally implemented 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 requirements, including the one-hundred foot buffer requirement set out in Sub-Items (3)(b)(i) of 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;" or
   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) ISSUANCE OF THE MITIGATION APPROVAL. The local government shall issue a mitigation approval upon determining that a proposal meets the requirements set out in this Rule. The approval shall identify at a minimum the option chosen, the required and proposed areas, and either the mitigation location or the offset payment amount as applicable.
4) OPTIONS FOR MEETING THE MITIGATION REQUIREMENT. The mitigation requirement 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 .0269 contingent upon acceptance of payments by the NC Ecosystem Enhancement Program, or to a private mitigation bank that complies with banking requirements of the US Army Corps of Engineers, currently set out at http://www.saw.usace.army.mil/WETLANDS/Mitigation/mitbanks.html or from the US Army Corps of Engineers, P.O. Box 1890, Wilmington, NC, 28402-1890, and the applicable trading criteria in 15A NCAC 02B .0273;
   b) Donation of real property or of an interest in real property pursuant to Item (7) of this Rule; or
   c) Restoration or enhancement of a non-forested riparian buffer pursuant to the requirements of Item (8) of this Rule.
5) THE AREA OF MITIGATION. The local government shall determine the required area of mitigation, which shall apply to all mitigation options identified in Item (4) of this Rule and as further specified in the requirements for each option set out in 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 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 (5)(a) of this Rule to each zone of the riparian buffer:

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

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.

6) THE LOCATION OF MITIGATION. For any option chosen, the mitigation effort shall be located within the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section, and 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. Alternatively, the applicant may propose mitigation anywhere within the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section, provided that the mitigation proposal accounts for differences in delivery of nutrients to the affected arm of Jordan Reservoir resulting from differences between the locations of the buffer impact and mitigation. Additional location requirements for the property donation option are enumerated in Sub-Item (7)(c)(i) 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) 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) In addition to the location requirements of Item (6), 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 as defined in Sub- Item (8)(d) of this Rule;

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 area of mitigation responsibility determined pursuant to Item (5) of this Rule;

v) Restoration shall not require removal of man-made structures or infrastructure;

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 transaction 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;

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

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; and

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 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 (5) 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 (5) of this Rule;

b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (6) 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) Enhancement and restoration shall both have the objective of establishing a forested riparian buffer according to the requirements of this Item. Enhancement shall be distinguished from restoration based on existing buffer conditions. Where existing trees are sparse, that is greater than or equal to 100 trees per acre but less than 200 trees per acre, a buffer may be enhanced. Where existing woody vegetation is absent, that is less than 100 trees per acre, a buffer may be restored;

e) 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. The restoration or enhancement plan shall contain the following:

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

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) vA schedule for implementation;

f) Within one year after the local government has approved the restoration or enhancement plan, the applicant shall present proof to the local government 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;

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

h) 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.

History Note: Authority 143-214.1; 143-214.5; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 1999-329, s. 7.1.; S.L. 2005-190; S.L. 2006-259;

Eff. August 11, 2009.

15A NCAC 02B .0269 RIPARIAN BUFFER MITIGATION FEES TO THE NC ECOSYSTEM ENHANCEMENT PROGRAM

The following is the process for payment of fees to the Riparian Buffer Restoration Fund administered by the North Carolina Ecosystem Enhancement Program as one option to mitigate riparian buffer impacts allowed under rules in this Subchapter. 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. 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:

1) 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 ninety-six cents per square foot or forty-one thousand eight hundred and eighteen dollars per acre ($41,818/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.
2) 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.
3) 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.

History Note: 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; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259;

Eff. August 11, 2009.

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

(See S.L. 2009-216 and S.L. 2009-484)

The following is the NPDES wastewater discharge management strategy for the B. Everett Jordan Reservoir watershed, or Jordan watershed:

1) PURPOSE. The purpose of this Rule is to establish minimum nutrient control requirements for point source wastewater discharges in the Jordan watershed in order to restore and maintain water quality in the reservoir and its tributaries and protect their designated uses, including water supply.

2) APPLICABILITY. This Rule applies to all wastewater treatment facilities discharging in the Jordan watershed that receive nutrient-bearing wastewater and are subject to requirements for individual NPDES permits.

3) DEFINITIONS. For the purposes of this Rule, the following definitions apply:

   a) In regard to point source dischargers, treatment facilities, and wastewater flows and discharges,

      i) "Existing" means that which was subject to a NPDES permit as of December 31, 2001;

      ii) "Expanding" means that which has increased or will increase beyond its permitted flow as defined in this Rule; and

      iii) "New" means that which was not subject to a NPDES permit as of December 31, 2001.

   b) "Active" allocation means that portion of an allocation that has been applied toward and is expressed as a nutrient limit in an individual NPDES permit. Allocation that is held but not applied in this way is "reserve" allocation.

   c) "Limit" means the mass quantity 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 watershed. Limits are enforceable and may be expressed as "delivered limit" or as the equivalent "discharge limit."

   d) "MGD" means million gallons per day.

   e) "Permitted flow" means the maximum monthly average flow authorized in a facility's NPDES permit as of December 31, 2001, with the following exceptions: NPDES Permitted Facility Owner Facility Name Permit Flow (MGD)

Facility Owner	Facility Name	NPDES Permit	Permitted Flow (MGD)
B. E. Jordan & Son, LLC	B. E. Jordan & Son WWTP	NC0042528	0.036
Durham County	Triangle WWTP	NC0026051	12.0
Fearrington Utilities, Inc.	Fearrington Village 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 Assoc.	Quarterstone Farm WWTP	NC0066966	0.2
Aqua North Carolina, Inc.	Chatham WRF	NC0056413	0.35

   f) "Reserve" allocation means allocation that is held by a permittee or other person but which has not been applied toward and is not expressed as a nutrient limit in an individual NPDES permit. Allocation that has been applied and expressed in this way is "active" allocation.

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

4) This Item provides for the initial division of nutrient wasteload allocations among point source dischargers under this strategy.

a) The delivered wasteload allocations of nitrogen and phosphorus assigned to point source dischargers collectively in each of the Jordan subwatersheds, as set out in 15A NCAC 02B .0262(4), shall be divided as follows:

Subwatershed and Discharger Sub-categories	Delivered Allocations (lb/yr) Total Nitrogen	Total Phosphorus
Upper New Hope Arm		
Permitted flows ≥ 0.1 MGD	332,466	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

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

5) This Item describes allowable changes in nutrient allocations.

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

i) Whenever the Commission, through rulemaking, revises the wasteload allocations in 15A NCAC 02B .0262 in order to ensure the protection of water quality in the reservoir and its tributaries or to conform with applicable state or federal requirements;

ii) Whenever one or more point source dischargers acquires any portion of the nonpoint load allocations under the provisions in this Rule, and 15A NCAC 02B .0273, Options for Offsetting Nutrient Loads;

iii) As the result of allocation transfers between point sources or between point and nonpoint sources, except that nutrient allocation can be transferred and applied only within its assigned subwatershed; or

iv) Any allocation is valid only in the subwatershed for which it is first established.

b) In the event that the Commission changes any nutrient wasteload allocation specified in 15A NCAC 02B .0262 or Item (4) of this Rule, the Commission shall also re-evaluate the apportionment among the dischargers and shall revise the individual allocations as necessary.

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

6) This Item identifies nutrient control requirements specific to existing discharges.

a) Beginning with the first full calendar year following the effective date of this Rule, any existing discharger with a permitted flow of 0.1 MGD or greater shall limit its total phosphorus discharge to its active individual discharge allocation as defined or modified pursuant to this Rule.

b) No later than six months after the effective date of this Rule, each existing discharger with a permitted flow greater than or equal to 0.1 MGD shall evaluate its treatment facilities and operations and identify further opportunities to improve and optimize nitrogen reduction in the existing facilities beyond those previously implemented pursuant to G.S. 143-215.1B(d); and submit a report to the Division documenting its findings, proposing optimization measures, and describing expected results. No later than six months following Division acceptance of the report, or as provided in the acceptance, the discharger shall implement the proposed measures. Beginning one year following Division acceptance of the report and continuing through the fifth calendar year after the effective date of this Rule, each such discharger shall submit a progress report to the Division documenting the status of the proposed measures and the nitrogen reductions achieved at the facility.

c) Beginning with the fifth full calendar year after the effective date of this Rule, each existing discharger with a permitted flow greater than or equal to 0.1 MGD shall limit its total nitrogen discharge to its active individual discharge allocation as defined or modified pursuant to this Rule.

d) Not later than 45 days after the effective date of this Rule, the Director shall notify existing permittees of the individual nitrogen and phosphorus allocations assigned according to Item (4) of this Rule and shall further notify each permittee, pursuant to 15A NCAC 02H .0114, of the Division's intent to modify the permittee's NPDES permit to incorporate nitrogen and phosphorus limits pursuant to the requirements set out in this rule and in accordance with applicable rules and regulations.

7) This Item identifies nutrient control requirements specific to 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) If the results of the evaluation support a new discharge, acquire sufficient nitrogen and phosphorus allocations for the discharge. The proponent may obtain allocation for the proposed discharge from existing dischargers pursuant to the applicable requirements of Item (9) of this Rule or employ measures to offset the increased nutrient loads resulting from the proposed discharge. The proponent may fund offset measures by making payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program, or implement other offset measures contingent upon approval by the Division, either of which shall meet the requirements of rule 15A NCAC 02B .0273. The offsets shall be of an amount equivalent to the allocations required for a period of 30 years. 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 permit application demonstrating that the requirements of Sub-Items (i) through (iii) of this Sub-Item have been met.

b) The nutrient discharge allocations and offsets for a new facility shall not exceed the mass loads equivalent to a concentration of 3.0 mg/L nitrogen or 0.18 mg/L phosphorus at the permitted flow 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 active individual discharge allocations.

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

8) This Item identifies nutrient control requirements specific to 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) If the results of the evaluation support an expanded discharge, acquire sufficient nitrogen and phosphorus allocations for the discharge. The proponent may obtain allocation for the proposed discharge from existing dischargers pursuant to the applicable requirements of Item (9) of this Rule or employ measures to offset the increased nutrient loads resulting from the proposed discharge. The proponent may fund offset measures by making payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program or implement other offset measures contingent upon approval by the Division, either of which shall meet the requirements of rule 15A NCAC 02B .0273. The offsets shall be of an amount equivalent to the allocations required for a period of 30 years. 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 permit application demonstrating that the requirements of Sub-Items (i) through (iii) of this Sub-Item have been met.

b) The nutrient discharge limits for an expanding facility shall not exceed the greater of its nutrient allocations or the mass value equivalent to a concentration of 3.0 mg/L nitrogen or 0.18 mg/L phosphorus at the permitted flow 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 active individual discharge allocations.

9) 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 su watershed or to other person(s), subject to the provisions of the Jordan nutrient strategy.

c) For NPDES compliance purposes, the enforceable nutrient limits for an individual facility or for a compliance association described in Item (10) shall be the effective limits in the governing permit, regardless of the allocation held by the discharger or association.

d) The Director may establish more stringent nitrogen or phosphorus discharge limits for any discharger upon finding that such limits are necessary to prevent the discharge from causing adverse water quality impacts on surface waters other than an arm of Jordan Reservoir as defined in Rule .0262(4) of this strategy. The Director shall establish such limits through modification of the discharger's NPDES permit in accordance with applicable rules and regulations. When the Director does so, the discharger retains its nutrient allocations, and the non-active portion of the discharger's allocation becomes reserve allocation. The allocation remains in reserve until the director determines that less stringent limits are allowable or until the allocation is applied to another discharge not subject to such water quality-based limits.

e) 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 shall:

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

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.

f) 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.

g) 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 subwatershed and that acceptance results in the elimination of the discharge from the other treatment facility, the eliminated facility's delivered nutrient allocations shall be transferred and added to the accepting discharger's delivered allocations.

10) 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 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 surface waters of the Jordan 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. 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 active delivered allocations for each nutrient plus any other active 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.

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

h) Beginning with the first full calendar year that the nitrogen or phosphorus limits are effective, an association that does not meet its permit limit for nitrogen or phosphorus for a calendar year shall, no later than May 1 of the year following the exceedance, make an offset payment to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program or by implementing other load offsetting measures contingent upon approval by the Division, either of which shall meet the requirements of rule 15A NCAC 02B .0273.

i) Association members shall be deemed in compliance with their individual delivered limits in the association NPDES permit for any calendar year in which the association is in compliance with its delivered limit. If the association fails to meet its delivered limit, the association and the members that have failed to meet their individual delivered nutrient limits in the association NPDES permit will be out of compliance with the association NPDES permit.

History Note: Authority G.S. 143-214.1; 143-214.5; 143-215; 143-215.1; 143-215.3(a)(1); 143-215B; 143B-282(c); 143B-282(d); S.L. 1995, c. 572; S.L. 2005-190; S.L. 2006-259;

Eff. August 11, 2009;

See S.L. 2009-216 and S.L. 2009-484.

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

(See S.L. 2009-216 and 2009-484)

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, on new non-road development lands, 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, to provide the highest practicable level of treatment on new road development, and to achieve and maintain the percentage goals on existing developed lands by reducing loading from state-maintained roadways and 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 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.
2) APPLICABILITY. This Rule shall apply to all existing and new development, both as defined in 15A NCAC 02B .0263, that lies within or partially within the Jordan watershed under the control of the NC Department of Transportation (NCDOT), including roadways and facilities, and to all lands controlled by other state and federal entities in the Jordan watershed.
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-half acre or more, 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 in a given subwatershed shall not exceed the unit-area mass loading rates applicable to that subwatershed as follows for nitrogen and phosphorus, respectively, 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 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 equivalent method acceptable to the Division.
      ii) Proposed new development subject to NPDES, water supply, and other state- mandated stormwater regulations shall comply with those regulations in addition to the other requirements of this Sub-Item. Proposed new development in any water supply watershed in the 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 pursuant to guidance specific to each practice as provided in the most recent version of the Stormwater Best Management Practices Manual published by the Division, or other technically at least equivalent guidance acceptable to the Division. To ensure that the integrity and nutrient processing functions of receiving waters and associated riparian buffers are not compromised by erosive flows, stormwater flows from the 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;

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

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 stormwater control at least equal 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 either to achieve at least the percentage load 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) 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 offsetting part of the nitrogen and phosphorus loads by implementing or funding offsite management measures as follows: Before using offsite offset options, a development shall meet any requirements for engineered stormwater controls described in Sub-Item (3)(a)(ii) of this Rule, and shall attain a maximum nitrogen loading rate on-site of four pounds per acre per year for single-family, detached and duplex residential development and eight pounds per acre per year for other development, including multi-family residential, commercial and industrial and shall meet any requirements for engineered stormwater controls described in Sub-Item (3)(a)(iii) of this Rule. An entity may make offset payments to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program. An entity may propose other offset measures to the Division, including providing its own offsite offset or utilizing a private seller. All offset measures identified in this Sub-Item shall meet the requirements of 15A NCAC 02B .0273(2)-(4); 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 load reduction programs for achieving and maintaining nutrient load reductions from existing development based on the standards set out in this Sub-Item. Such entities shall submit these programs for approval by the Division. A load reduction program shall include the following elements and meet the associated criteria:

i) The long-term objective of this program shall be for the entity to achieve the percentage nutrient load reduction goals in Item (3) of 15A NCAC 02B .0262 relative to annual mass loads, in pounds per year, representative of the baseline period defined in that Rule and reaching Jordan Reservoir from existing developed lands within each subwatershed under its control. Loads shall be calculated by applying the Tar-Pamlico Nutrient Export Calculation Worksheet, Piedmont Version, dated October 2004, or an equivalent or more accurate method acceptable to the Division, to acreages of different types of existing developed lands as defined in this Sub-Item and in Item (2) of this Rule. To provide entities spatial latitude to obtain reductions in different locations, loads thus calculated shall be converted to delivered loads to Jordan Reservoir using transport factors established in the Division document, Nitrogen and Phosphorus Delivery from Small Watersheds to Jordan Lake, dated June 30, 2002. Subject entities shall include estimates of, and plans for offsetting, nutrient load increases from lands developed subsequent to the baseline period but prior to implementation of new development programs. For these post-baseline developed lands, the new loading rate shall be compared to the applicable loading rate target in Sub-Item (3)(a)(i) of 15A NCAC 02B .0273 for the subwatershed and acres involved, and the difference shall constitute the load reduction need. Should percentage reduction goals be adjusted pursuant to Item (7) of 15A NCAC 02B .0262, then the annual load 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 Act Section 319

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

Grant Program, or other funding programs for nonpoint sources;

ii) The load reduction program shall include a plan and supporting technical analysis for achieving half of each load reduction goal within 10 years after the effective date of this Rule, and a plan and timeframes for achieving the remaining half subject to modification based on technical analysis at 10 years after effective date. A load reduction program may propose an alternative compliance timeframe provided it includes a technical analysis that demonstrates the need for that timeframe. A program technical analysis shall examine the feasibility of achieving stated goals and shall consider factors such as magnitude of reduction need relative to area within a subwatershed, the potential for utilizing the range of load-reducing activities listed in Sub-Item (3)(a)(iv), and relative costs and efficiencies of each activity to the extent information is available. The load reduction program shall propose implementation rates and timeframes for each activity, and shall provide for proportionate annual progress toward meeting the reduction goals as practicable, that is capable of being put into practice, done, or accomplished;

iii) The load reduction program shall identify specific load-reducing practices implemented to date subsequent to the baseline period and for which it is seeking credit. It shall estimate load reductions for these practices using methods provided for in Item (8), and their anticipated duration;

iv) The load reduction 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 load reductions, and may seek activities that provide sustained, long-term reductions. The load reduction program shall meet the requirements of 15A NCAC 02B .0273. Potential load-reducing activities may include stormwater activities such as street sweeping, improvement of existing ponds and stormwater structures, removal of existing built-upon area, retrofitting of existing development with engineered best management practices (BMPs), treatment of runoff in redevelopment projects, over-treatment of runoff in new development projects, source control activities such as pet waste reduction and fertilization reduction, alternative stormwater practices such as rain barrels, cisterns, downspout disconnections, and stormwater capture and reuse, restoration of ecological communities such as streams and riparian buffers, and wastewater activities such as creation of surplus allocation through advanced treatment at wastewater facilities, expansion of surplus allocation through regionalization, collection system improvements, and removal of illegal discharges;

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

vi) An entity shall have the option of working with municipalities or counties within its subwatershed to jointly meet the load targets from all existing development within their combined jurisdictions. An entity may utilize private or third party sellers. All reductions shall meet the requirements of 15A NCAC 02B .0273;

vii) The entity shall include measures to provide for operation and maintenance of retrofitted stormwater controls to ensure that they meet the load targets required in Sub-Item (3)(b) of this Rule for the life of the development; and

viii) An entity may choose to conduct monitoring of stream flows and runoff from catchments to quantify disproportionately high loading rates relative to those used in the accounting methods stipulated under Item (8), and to subsequently target load-reducing activities to demonstrated high-loading source areas within such catchments for proportionately greater load reduction credit. An entity may propose such actions in its initial load reduction program submittal or at any time subsequent,

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

subsequent, and shall obtain Division approval of the monitoring design. It shall also obtain Division approval of any resulting load reduction benefits based on the standards set out in this Rule. As detailed in Item (5), an entity that chooses such monitoring initially may delay submittal of its load reduction program by one year for the purpose of incorporating monitoring findings into its program design provided it submits to the Division within six months of the effective date of this Rule a satisfactory monitoring proposal involving at least one year of up-front monitoring, executes the monitoring, and provides the results to the Division as part of its load reduction program submittal.

4) NCDOT REQUIREMENTS 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 according to the following standards:

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

i) For new and widening roads, compliance with the riparian buffer protection requirements of Rules 15A NCAC 02B .0267 and .0268 which are expected to achieve a 30 percent nitrogen reduction efficiency in runoff treatment through either diffuse flow into buffers or other practices) shall be deemed as compliance with the purposes of this Rule.

ii) New non-road development shall achieve and maintain the nitrogen and phosphorus percentage load reduction goals established for each subwatershed in 15A NCAC 02B .0262 relative to either area-weighted average loading rates of all developable lands as of the baseline period defined in 15A NCAC 02B .0262, or to project- specific pre-development loading rates. Values for area-weighted average loading rate targets for nitrogen and phosphorus, 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 NCDOT shall determine the need for engineered stormwater controls to meet these loading rate targets by using the loading calculation method called for in Item (8) or other equivalent method acceptable to the Division. Where stormwater treatment systems are needed to meet these targets, they shall be designed to control and treat the runoff generated from all surfaces by one inch of rainfall. Such systems shall be assumed to achieve the nutrient removal efficiencies identified in the most recent version of the Stormwater Best Management Practices Manual published by the Division provided that they meet associated drawdown and other design specifications included in the same document. The NCDOT may propose to the Division nutrient removal rates for practices currently included in the BMP Toolbox required under its NPDES stormwater permit, or may propose revisions to those practices or additional practices with associated nutrient removal rates. The NCDOT may use any such practices approved by the Division to meet loading rate targets identified in this Sub-Item. New non-road development shall also control runoff flows to meet the purpose of this Rule regarding protection of the nutrient functions and integrity of receiving waters.

iii) For new non-road development, the NCDOT shall have the option of partially offsetting its nitrogen and phosphorus loads by implementing or funding offsite management measures. These offsite offsetting measures shall achieve at least equivalent reductions in nitrogen and phosphorus load to the remaining reduction needed onsite to comply with Sub-Item (4)(c)(ii) of this Rule. Before using offsite offset options, a development shall attain a maximum nitrogen loading rate of 8 pounds per acre per

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

year. The NCDOT may make offset payments to the NC Ecosystem Enhancement Program contingent upon acceptance of payments by that Program. The NCDOT may propose other offset measures to the Division. All offset measures identified in this Sub-Item shall meet the requirements of 15A NCAC 02B .0273.

d) Establish a program to identify and implement load-reducing opportunities on existing development within the watershed. The long-term objective of this effort shall be for the NCDOT to achieve the nutrient load goals in 15A NCAC 02B .0262 as applied to existing development under its control, including roads and facilities.

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

ii) For existing roadway development, NCDOT may meet minimum implementation rate and schedule requirements by implementing retrofits or other load-reducing measures in the watershed to achieve load reductions at the rate of 500 pounds of nitrogen reduction per 5-year period and at least 50 pounds per year. To the maximum extent practicable, retrofits shall be designed to treat the runoff generated from all surfaces by 1 inch of rainfall, and shall conform to the standards and criteria established in the most recent version of the Division-approved NCDOT BMP Toolbox required under NCDOT's NPDES stormwater permit. To establish removal rates for nutrients in the Toolbox, design criteria for individual practices therein shall be modified as needed consistent with such criteria in the most recent version of the Stormwater Best Management Practices Manual published by the Division, or other technically at least equivalent guidance acceptable to the Division, and the Division shall approve such modifications as part of the accounting process defined in Item (8) of this Rule. Other aspects of nutrient mass load calculations shall be based on the accounting process defined in Item (8) of this Rule.

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 load 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) Within six months after the effective date of this Rule, any entity that intends to use water quality monitoring to guide the initial design of its load reduction program shall provide a monitoring design to the Division. The Division shall notify any such entity of the adequacy of its design within three months of submittal. When an entity's monitoring design is deemed adequate, it may delay submittal of its load reduction program by up to one year from the timeframe given in Sub-Item (5)(c) of this Rule, whereupon the same time interval would be added to the approval and implementation timeframes given in Sub-Items (5)(d) through (5)(f) of this Rule;

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

b) Upon Commission approval of the accounting methods required by Item (8) of this Rule, subject entities shall comply with the requirements of Sub-Item (3)(a) of this Rule for any new development proposed within their jurisdictions;

c) Within 24 months after the Commission's approval of the accounting methods, subject entities shall submit load reduction programs to the Division for preliminary approval according to the standards set out in Sub-Item (3)(b) of this Rule;

d) Within 34 months after the Commission's approval of the accounting methods, the Division shall request the Commission's approval of entities' load reduction programs. The Commission shall either approve the programs or require changes. Should the Commission require changes, the Division shall seek Commission approval at the earliest feasible date subsequent to the original request;

e) Within 36 months after the Commission's approval of the accounting methods, or within two months following Commission approval of a load reduction program, whichever is later, entities shall begin to implement load reduction programs; and

f) Upon implementation of the requirements of Item (3) of this Rule, subject entities shall provide annual reports to the Division documenting their progress in implementing those requirements.

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

a) Within 30 months of the effective date of this Rule, the NCDOT shall submit the Stormwater Management Program for the Jordan watershed to the Division for approval. This Program shall meet or exceed the requirements in Item (4) of this Rule;

b) Within 40 months of the effective date of this Rule, the Division shall request the Commission's approval of the NCDOT Stormwater Management Program;

c) Within 42 months of the effective date of this Rule, the NCDOT shall implement the approved Stormwater Management Program; 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. This annual reporting may be incorporated into annual reporting required under NCDOT's NPDES stormwater permit.

7) RELATIONSHIP TO OTHER REQUIREMENTS. A party may in its program submittal under Item (5) or (6) of this Rule request that the Division accept its implementation of another stormwater program or programs, such as NPDES stormwater requirements, as satisfying one or more of the requirements set forth in Item (3) or (4) of this Rule. The Division shall provide determination on acceptability of any such alternatives prior to requesting Commission approval of programs as required in Items (5) and (6) of this Rule. The party shall include in its program submittal technical information demonstrating the adequacy of the alternative requirements.

8) ACCOUNTING METHODS. Within 18 months after the effective date of this Rule, the Division shall submit a nutrient accounting framework to the Commission for approval. This framework shall include tools for quantifying load reduction assignments on existing development for parties subject to this Rule, load reduction credits from various activities on existing developed lands, and a tool that will allow subject parties to account for loading from new and existing development and loading changes due to BMP implementation, The Division shall work in cooperation with subject parties and other watershed interests in developing this framework. The Division shall periodically revisit these accounting methods to determine the need for revisions to both the methods and to existing development load reduction assignments made using the methods set out in this Rule. It shall do so no less frequently than every 10 years. Its review shall include values subject to change over time independent of changes resulting from implementation of this Rule, such as untreated export rates that may change with changes in atmospheric deposition. It shall also review values subject to refinement, such as BMP nutrient removal efficiencies.

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

History Note: 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; 143 215.8B; 143B-282(c); 143B-282(d); S.L. 2005-190; S.L. 2006-259;

Eff. August 11, 2009;

See S.L. 2009-216 and S.L. 2009-484.

15A NCAC 02B .0272 JORDAN WATER SUPPLY NUTRIENT STRATEGY: FERTILIZER 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. The requirements of this Rule are to be fully implemented within three years from the effective date as set out in Item (6) of this Rule.
2) APPLICABILITY. This Rule shall apply to the application of nutrients on:
   a) Cropland areas in the Jordan watershed for commercial purposes;
   b) Commercial ornamental and floriculture areas and greenhouse production areas in the Jordan watershed;
   c) Golf courses, public recreational lands, road or utility rights-of-way, or other commercial or institutional lands where any such land, or combination of such lands, under common management in the watershed totals at least five acres; and
   d) Any lands in the Jordan watershed where a hired applicator, as defined in 15A NCAC 02B .0202(4), who does not own or lease the lands applies nutrients to a total of at least five acres per year.
3) REQUIREMENTS. Application of nutrients to lands subject to this Rule shall be in accordance with the following requirements:
   a) Application shall be made either:
      i) By an applicator who has completed nutrient management training pursuant to Item (4) of this Rule; or
      ii) Pursuant to a nutrient management plan that meets the requirements of Item (5) of this Rule.
   b) With the exception of residential homeowners, a person who hires 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 (4) of this Rule; or
      ii) Ensure that the applicator they hire follows a nutrient management plan that has been developed for the land that they own or manage pursuant to Item (5) of this Rule.
4) NUTRIENT MANAGEMENT TRAINING. To demonstrate compliance with this Rule through the nutrient management training option, the applicator shall have a certificate indicating completion of training provided by either the Cooperative Extension Service or the Division. Training certificates shall be kept on-site or be produced within 24 hours of a request by the Division. 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.
5) NUTRIENT MANAGEMENT PLANS. Nutrient management plans developed to comply with this rule shall meet the following requirements:
   a) Nutrient management plans for cropland, excluding those for application of Class A bulk, and Class B wastewater residuals, regulated under 15A NCAC 02T .1100 and septage application regulated under 15A NCAC 13B .0815 through .0829, 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 editions to such rules that are in place at the time that plans are approved by a technical specialist as required under Sub-Item (5)(e) of this Rule.

15A NCAC 02B .0272 JORDAN WATER SUPPLY NUTRIENT STRATEGY: FERTILIZER MANAGEMENT (Continued)

b) Nutrient management plans for application of Class A bulk, and Class B, wastewater residuals regulated under 15A NCAC 02T .1100 and septage application regulated under 15A NCAC 13B .0815 through .0829 shall meet the standards and specifications adopted by the NC Soil and Water Conservation Commission in 15A NCAC 06E .0104, including any subsequent amendments and editions to such rule that are in place at the time that plans are approved by the permitting agency. This compliance includes addressing the phosphorus requirements of US Department of Agriculture Natural Resources Conservation Service Practice Standard 590 regarding Nutrient Management.

c) Nutrient management plans for lands identified in Sub-Item (2)(c) of this Rule shall follow the applicable guidance contained in the most recent version of North Carolina Cooperative Extension Service publications "Water Quality and Professional Lawn Care" (NCCES publication number WQWM-155), "Water Quality and Home Lawn Care" (NCCES publication number WQWM-151), or "Water Quality for Golf Course Superintendents and Professional Turf Managers" (NCCES publication number WQWM-156 Revised) as appropriate for the activity. The above-referenced guidelines 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 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.

d) Nutrient management plans for ornamental and floriculture production shall follow the Nutrient Management section of the most recent version of the Southern Nursery Association guidelines promulgated in "Best Management Practices – A BMP Guide For Producing Container and Field Grown Plants". Copies may be obtained from the Southern Nursery Association, 1827 Powers Ferry Road SE, Suite 4-100, Atlanta, GA 30339-8422 or from www.sna.org. The materials related to nutrient management plans for ornamental and floriculture 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 ornamental and floriculture 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.

e) The nutrient management plan shall be approved in writing by an appropriate technical specialist, as defined in 15A NCAC 06H .0102(9), as follows:

   i) Nutrient management plans for cropland using either inorganic or organic nutrients, except those using biosolids or septage, 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 lands identified in Sub-Item (2)(c) of this Rule, ornamental and floriculture 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.

f) 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.

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

15A NCAC 02B .0272 JORDAN WATER SUPPLY NUTRIENT STRATEGY: FERTILIZER MANAGEMENT (Continued)

6) COMPLIANCE. The following constitute the compliance requirements of this Rule:

a) For proposed new application of Class A bulk, and Class B, wastewater residuals pursuant to permits obtained under 15A NCAC 02T .1100 or its predecessor, and septage application pursuant to permits obtained under 15A NCAC 13B .0815 through .0829, all applications for new permits shall be made according to, and subsequent nutrient applications shall comply with, the applicable requirements of this Rule as of its effective date.

b) For existing, ongoing application of residuals and septage as defined in this Item, beginning one year after the effective date of this Rule, all applications for renewal of existing permits shall be made according to, and subsequent nutrient applications shall comply with, the applicable requirements of this Rule.

c) For all other application with the exception of the application of residuals and septage as defined in this Item, the requirements of this Rule shall become effective three years after its effective date and shall apply to all application of nutrients on lands subject to this Rule after that date.

d) 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).

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

Eff. August 11, 2009.

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

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

1) PREREQUISITES. The following buyers shall meet applicable criteria identified here and in rules imposing reduction requirements on them before utilizing the option outlined in this Rule:
   a) Agriculture Rule .0264: Agricultural producers shall receive approval from the Watershed Oversight Committee to obtain offsite credit pursuant to the conditions of Sub-Item (5)(b);
   b) New Development Rule .0265: Developers shall meet onsite reduction requirements enumerated in Sub-Item (3)(a)(vii) before obtaining offsite credit;
   c) Wastewater Rule .0270: New and expanding dischargers shall first make all reasonable efforts to obtain allocation from existing dischargers as stated in Sub-Items (7)(a)(ii) and (8)(a)(ii), respectively; and
   d) State and Federal Entities Stormwater Rule .0271:
      i) Non-DOT entities shall meet onsite new development reduction requirements enumerated in Sub-Item (3)(a)(vi); and
      ii) NC DOT shall meet onsite non-road new development reduction requirements enumerated in Sub-Item (4)(c)(iii) before obtaining offsite credit.
2) The party seeking approval to sell excess loading reduction 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 rules in this Section or in excess of the percentage load reduction goals established in Rule .0262 of this strategy as applied to sources not addressed by rules in this section;
   b) Load reductions eligible for credit shall not include reductions achieved under other regulations to mitigate or offset actions that increase nutrient loading;
   c) These excess loading reductions shall be available as credit only within the same subwatershed of the Jordan watershed, as defined in Rule .0262 of this Section, as the reduction need that they propose to offset;
   d) The party seeking to sell credits shall define the nature of the activities that would produce excess 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; and
      iv) Demonstrate means adequate for assuring the achievement and claimed duration of excess loading reduction, including the cooperative involvement of any other involved parties.

15A NCAC 02B .0273 JORDAN WATER SUPPLY NUTRIENT STRATEGY: OPTIONS FOR OFFSETTING NUTRIENT LOADS (Continued)

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

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 as required under Sub-Items (2) and (3) of this Rule, and that specific accounting tools required for these purposes in individual rules have been adequately established. In making this determination, the Director shall also evaluate the potential for excess loading to produce localized adverse water quality impacts that contribute to impairment of classified uses of the affected waters.

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

Eff. August 11, 2009.

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/csu/; 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;

15A NCAC 02B .0311 CAPE FEAR RIVER BASIN (Continued)

14) June 1, 1988;

15) July 1, 1988;

16) January 1, 1990;

17) August 1, 1990;

18) August 3, 1992;

19) September 1, 1994;

20) August 1, 1998;

21) April 1, 1999;

22) August 1, 2002;

23) November 1, 2004;

24) November 1, 2007;

25) January 1, 2009;

26) August 11, 2009;

27) September 1, 2009.

c) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin has been amended effective June 1, 1988 as follows:

1) Cane Creek [Index No. 16-21-(1)] from source to a point 0.5 mile north of N.C. Hwy. 54 (Cane Reservoir Dam) including the Cane Creek Reservoir and all tributaries has been reclassified from Class WS-III to WS-I.

2) Morgan Creek [Index No. 16-41-1-(1)] to the University Lake dam including University Lake and all tributaries has been reclassified from Class WS-III to WS-I.

d) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin has been amended effective July 1, 1988 by the reclassification of Crane Creek (Crains Creek) [Index No. 18-23-16-(1)] from source to mouth of Beaver Creek including all tributaries from C to WS-III.

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

1) Intracoastal Waterway (Index No. 18-87) from southern edge of White Oak River Basin to western end of Permuda Island (a line from Morris Landing to Atlantic Ocean), from the eastern mouth of Old Topsail Creek to the southwestern shore of Howe Creek and from the southwest mouth of Shinn Creek to channel marker No. 153 including all tributaries except the King Creek Restricted Area, Hardison Creek, Old Topsail Creek, Mill Creek, Futch Creek and Pages Creek were reclassified from Class SA to Class SA ORW.

2) Topsail Sound and Middle Sound ORW Area which includes all waters between the Barrier Islands and the Intracoastal Waterway located between a line running from the western most shore of Mason Inlet to the southwestern shore of Howe Creek and a line running from the western shore of New Topsail Inlet to the eastern mouth of Old Topsail Creek was reclassified from Class SA to Class SA ORW.

3) Masonboro Sound ORW Area which includes all waters between the Barrier Islands and the mainland from a line running from the southwest mouth of Shinn Creek at the Intracoastal Waterway to the southern shore of Masonboro Inlet and a line running from the Intracoastal Waterway Channel marker No. 153 to the southside of the Carolina Beach Inlet was reclassified from Class SA to Class SA ORW.

f) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin has been amended effective January 1, 1990 as follows: Big Alamance Creek [Index No. 16-19-(1)] from source to Lake Mackintosh Dam including all tributaries has been reclassified from Class WS-III NSW to Class WS-II NSW.

15A NCAC 02B .0311 CAPE FEAR RIVER BASIN (Continued)

g) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

h) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective June 1, 1994 as follows:

1) The Black River from its source to the Cape Fear River [Index Nos. 18-68-(0.5), 18-68-(3.5) and 18- 65-(11.5)] was reclassified from Classes C Sw and C Sw HQW to Class C Sw ORW.

2) The South River from Big Swamp to the Black River [Index Nos. 18-68-12-(0.5) and 18-68-12(11.5)] was reclassified from Classes C Sw and C Sw HQW to Class C Sw ORW.

3) Six Runs Creek from Quewhiffle Swamp to the Black River [Index No. 18-68-2] was reclassified from Class C Sw to Class C Sw ORW.

i) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective September 1, 1994 with the reclassification of the Deep River [Index No. 17-(36.5)] from the Town of Gulf-Goldston water supply intake to US highway 421 including associated tributaries from Class C to Classes C, WS-IV and WS-IV CA.

j) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 1, 1998 with the revision to the primary classification for portions of the Deep River [Index No. 17-(28.5)] from Class WS-IV to Class WS-V, Deep River [Index No. 17-(41.5)] from Class WS-IV to Class C, and the Cape Fear River [Index 18-(10.5)] from Class WS-IV to Class WS-V.

k) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective April 1, 1999 with the reclassification of Buckhorn Creek (Harris Lake)[Index No. 18-7-(3)] from the backwaters of Harris Lake to the Dam at Harris Lake from Class C to Class WS-V.

l) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective April 1, 1999 with the reclassification of the Deep River [Index No. 17-(4)] from the dam at Oakdale-Cotton Mills, Inc. to the dam at Randleman Reservoir (located 1.6 mile upstream of U.S. Hwy 220 Business), and including tributaries from Class C and Class B to Class WS-IV and Class WS-IV & B. Streams within the Randleman Reservoir Critical Area have been reclassified to WS-IV CA. The Critical Area for a WS-IV reservoir is defined as 0.5 mile and draining to the normal pool elevation of the reservoir. All waters within the Randleman Reservoir Water Supply Watershed are within a designated Critical Water Supply Watershed and are subject to a special management strategy specified in 15A NCAC 02B .0248.

m) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 1, 2002 as follows:

1) Mill Creek [Index Nos. 18-23-11-(1), 18-23-11-(2), 18-23-11-3, 18-23-11-(5)] from its source to the Little River, including all tributaries was reclassified from Class WS-III NSW and Class WS-III B NSW to Class WS-III NSW HQW@ and Class WS-III B NSW HQW@.

2) McDeed's Creek [Index Nos. 18-23-11-4, 18-23-11-4-1] from its source to Mill Creek, including all tributaries was reclassified from Class WS III NSW and Class WS-III B NSW to Class WS-III NSW HQW@ and Class WS-III B NSW HQW@.

The "@" symbol as used in this Paragraph means that if the governing municipality has deemed that a development is covered under a "5/70 provision" as described in Rule 15A NCAC 02B .0215(3)(b)(i)(E) (Fresh Surface Water Quality Standards for Class WS-III Waters), then that development is not subject to the stormwater requirements as

15A NCAC 02B .0311 CAPE FEAR RIVER BASIN (Continued)

described in rule 15A NCAC 02H .1006 (Stormwater Requirements: High Quality Waters).

n) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective November 1, 2004 as follows:

1) A portion of Rocky River [Index Number 17-43-(1)] from a point approximately 0.3 mile upstream of Town of Siler City upper reservoir dam to a point approximately 0.3 mile downstream of Lacy Creek from WS-III to WS-III CA.

2) A portion of Rocky River [Index Number 17-43-(8)] from dam at lower water supply reservoir for Town of Siler City to a point approximately 65 feet below dam (site of proposed dam) from C to WSIII CA.

3) A portion of Mud Lick Creek (Index No. 17-43-6) from a point approximately 0.4 mile upstream of Chatham County SR 1355 to Town of Siler City lower water supply reservoir from WS-III to WS-III CA.

4) A portion of Lacy Creek (17-43-7) from a point approximately 0.6 mile downstream of Chatham County SR 1362 to Town of Siler City lower water supply reservoir from WS-III to WS-III CA.

o) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective November 1, 2007 with the reclassifications listed below, and the North Carolina Division of Water Quality maintains a Geographic Information Systems data layer of these UWLs.

1) Military Ocean Terminal Sunny Point Pools, all on the eastern shore of the Cape Fear River [Index No. 18-(71)] were reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

2) Salters Lake Bay near Salters Lake [Index No. 18-44-4] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

3) Jones Lake Bay near Jones Lake [Index No. 18-46-7-1] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

4) Weymouth Woods Sandhill Seep near Mill Creek [18-23-11-(1)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

5) Fly Trap Savanna near Cape Fear River [Index No. 18-(71)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

6) Lily Pond near Cape Fear River [Index No. 18-(71)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

7) Grassy Pond near Cape Fear River [Index No. 18-(71)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

8) (8) The Neck Savanna near Sandy Run Swamp [Index No. 18-74-33-2] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

9) Bower's Bog near Mill Creek [Index No. 18-23-11-(1)] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

10) Bushy Lake near Turnbull Creek [Index No. 18-46] was reclassified to Class WL UWL as defined in 15A NCAC 02B .0101.

p) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective January 1, 2009 as follows:

1) a portion of Cape Fear River [Index No. 18-(26)] (including tributaries) from Smithfield Packing Company's intake, located approximately 2 miles upstream of County Road 1316, to a point approximately 0.5 miles upstream of Smithfield Packing Company's intake from Class C to Class WSIV CA.

2) a portion of Cape Fear River [Index No.18-(26)] (including tributaries) from a point approximately 0.5 miles upstream of Smithfield Packing Company's intake to a point approximately 1 mile upstream of Grays Creek from Class C to Class WS-IV.

15A NCAC 02B .0311 CAPE FEAR RIVER BASIN (Continued)

q) The schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 11, 2009 with the reclassification of all Class C NSW waters and all Class B NSW waters upstream of the dam at B. Everett Jordan Reservoir from Class C NSW and Class B NSW to Class WS-V NSW and Class WS-V & B NSW, respectively. All waters within the B. Everett Jordan Reservoir Watershed are within a designated Critical Water Supply Watershed and are subject to a special management strategy specified in 15A NCAC 02B .0262 through .0272.

r) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective September 1, 2009 with the reclassification of a portion of the Haw River [Index No. 16-(28.5)] from the Town of Pittsboro water supply intake, which is located approximately 0.15 mile west of U.S. 15/501, to a point 0.5 mile upstream of the Town of Pittsboro water supply intake from Class WS-IV to Class WS-IV CA.

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

Eff. February 1, 1976;

Amended Eff. September 1, 2009; August 11, 2009; January 1, 2009; November 1, 2007; November 1, 2004; August 1, 2002; April 1, 1999; August 1, 1998; September 1, 1994; June 1, 1994; August 3, 1992; August 1, 1990.

Appendix B

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-216
HOUSE BILL 239

AN ACT TO PROVIDE FOR IMPROVEMENTS IN THE MANAGEMENT OF THE JORDAN WATERSHED IN ORDER TO RESTORE WATER QUALITY IN THE JORDAN RESERVOIR.

The General Assembly of North Carolina enacts:

SECTION 1. Definitions. – The following definitions apply to this act and its implementation:

1) The definitions set out in G.S. 143-212 and G.S. 143-213.
2) The definitions set out in 15A NCAC 02B .0262 (Jordan Water Supply Nutrient Strategy: Purpose and Scope) and 15A NCAC 02B .0263 (Jordan Water Supply Nutrient Strategy: Definitions).
3) "Existing Development Rule 15A NCAC 02B .0266" means 15A NCAC 02B .0266 (Jordan Water Supply Nutrient Strategy: Stormwater Management for Existing Development), adopted by the Commission on May 8, 2008, and approved by the Rules Review Commission on November 20, 2008.
4) "Wastewater Discharge Rule 15A NCAC 02B .0270" means 15A NCAC 02B .0270 (Jordan Water Supply Nutrient Strategy: Wastewater Discharge Requirements) adopted by the Commission on May 8, 2008, and approved by the Rules Review Commission on October 16, 2008.

SECTION 2.(a) Wastewater Discharge Rule 15A NCAC 02B .0270. – Until the effective date of the revised permanent rule that the Commission is required to adopt pursuant to Section 2(c) of this act, the Commission and the Department shall implement the Wastewater Discharge Rule 15A NCAC 02B .0270, as provided in Section 2(b) of this act.

SECTION 2.(b) Implementation. – Notwithstanding sub-subdivision (c) of subdivision (6) of Wastewater Discharge Rule 15A NCAC 02B .0270, each existing discharger with a permitted flow greater than or equal to 0.1 million gallons per day (MGD) shall limit its total nitrogen discharge to its active individual discharge allocation as defined or modified pursuant to Wastewater Discharge Rule 15A NCAC 02B .0270 no later than calendar year 2016.

SECTION 2.(c) Additional Rule-Making Authority. – The Commission shall adopt a rule to replace Wastewater Discharge Rule 15A NCAC 02B .0270. Notwithstanding G.S. 150B-19(4), the rule adopted by the Commission pursuant to this section shall be substantively identical to the provisions of Section 2(b) of this act. Rules adopted pursuant to this section are not subject to G.S. 150B-21.9 through G.S. 150B-21.14. Rules adopted pursuant to this section shall become effective as provided in G.S. 150B-21.3(b1) as though 10 or more written objections had been received as provided by G.S. 150B-21.3(b2).

SECTION 3.(a) Existing Development Rule 15A NCAC 02B .0266 Disapproved. – Pursuant to G.S. 150B-21.3(b1), Existing Development Rule 15A NCAC 02B .0266, as adopted by the Environmental Management Commission on May 8, 2008, and approved by the Rules Review Commission on November 20, 2008, is disapproved.

SECTION 3.(b) References in the North Carolina Administrative Code to the rule cited in Section 3(a) of this act shall be deemed to refer to the equivalent provisions of this act.

SECTION 3.(c) Nutrient Monitoring. – The Department shall maintain an ongoing program to monitor water quality in each arm of Jordan Reservoir. The Department shall also accept water quality sampling data from a monitoring program implemented by a local government or nonprofit organization if the data meets quality assurance standards established by the Department. On March 1, 2014, the Department shall report the results of monitoring in each arm of Jordan Reservoir to the Environmental Review Commission. The Department shall submit an updated monitoring report under this section every three years thereafter until such time as the lake is no longer impaired by nutrient pollution.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-216
HOUSE BILL 239
(Continued)

SECTION 3.(d) Control of Nutrient Loading From Existing Development. – The Department shall require implementation of reasonable nutrient load reduction measures for existing development in each subwatershed of the Jordan Reservoir, as provided in this act. The Department shall determine whether nutrient load reduction measures for existing development are necessary in each subwatershed of Jordan Reservoir and require implementation of reasonable nutrient reduction measures in accordance with an adaptive management program as follows:

1) Stage 1 Adaptive Management Program to Control Nutrient Loading From Existing Development. –

a. Municipalities and counties located in whole or in part in the Jordan watershed shall implement a Stage 1 adaptive management program to control nutrient loading from existing development in the Jordan watershed. The Stage 1 adaptive management program shall meet the requirements set out in 40 C.F.R. § 122.34 as applied by the Department in the NPDES General Permit for municipal separate storm sewer systems in effect on July 1, 2009. The Stage 1 adaptive management program shall include all of the following measures:

1. A public education program to inform the public of the impacts of nutrient loading and measures that can be implemented to reduce nutrient loading from stormwater runoff from existing development.

2. A mapping program that includes major components of the municipal separate storm sewer system, including the location of major outfalls, as defined in 40 Code of Federal Regulations §122.26(b)(5) (July 1, 2008) and the names and location of all waters of the United States that receive discharges from those outfalls, land use types, and location of sanitary sewers.

3. A program to identify and remove illegal discharges.

4. A program to identify opportunities for retrofits and other projects to reduce nutrient loading from existing developed lands.

5. A program to ensure maintenance of best management practices implemented by the local government.

b. The Department shall accept local government implementation of another stormwater program or programs meeting the standards set out in this section as satisfying one or more of the requirements set forth in sub-subdivision a. of this subdivision. The local government shall provide technical information sufficient to demonstrate the adequacy of the alternative program or program elements.

c. A Stage 1 adaptive management program to control nutrient loading from existing development shall be implemented as follows:

1. No later than December 31, 2009, each local government shall submit its Stage 1 adaptive management program to the Commission for review and approval.

2. Within six months following submission of a Stage 1 adaptive management program, the Department shall recommend that the Commission approve or disapprove the program. The Commission shall either approve the program or require changes based on the standards set out in sub-subdivision a. of this subdivision. If the Commission requires changes, the local government shall submit revisions responding to the required changes within two months and the Department shall provide follow-up recommendations to the Commission within two months after receiving revisions.

3. Within three months following Commission approval of a Stage 1 adaptive management program, the local government shall begin implementation of the program. Each local government shall report annually to the Department on implementation of its program.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-216
HOUSE BILL 239
(Continued)

2) Stage 2 Adaptive Management Program to Control Nutrient Loading From Existing Development. –

a. If the March 1, 2014 monitoring report or any subsequent monitoring report for the Upper New Hope Creek Arm of Jordan Reservoir required under Section 3(c) of this act shows that nutrient-related water quality standards are not being achieved, a municipality or county located in whole or in part in the subwatershed of that arm of Jordan Reservoir shall develop and implement a Stage 2 adaptive management program to control nutrient loading from existing development within the subwatershed, as provided in this act. If the March 1, 2017 monitoring report or any subsequent monitoring report for the Haw River Arm or the Lower New Hope Creek Arm of Jordan Reservoir required under Section 3(c) of this act shows that nutrient-related water quality standards are not being achieved, a municipality or county located in whole or in part in the subwatershed of that arm of Jordan Reservoir shall develop and implement a Stage 2 adaptive management program to control nutrient loading from existing development within the subwatershed, as provided in this act. The Department shall defer development and implementation of Stage 2 adaptive management programs to control nutrient loading from existing development required in a subwatershed by this subdivision if it determines that additional reductions in nutrient loading from existing development in that subwatershed will not be necessary to achieve nutrient-related water quality standards. In making this determination, the Department shall consider the anticipated effect of measures implemented or scheduled to be implemented to reduce nutrient loading from sources in the subwatershed other than existing development. If any subsequent monitoring report for an arm of Jordan Reservoir required under Section 3(c) of this act shows that nutrient-related water quality standards have not been achieved, the Department shall notify the municipalities and counties located in whole or in part in the subwatershed of that arm of Jordan Reservoir and the municipalities and counties shall develop and implement a Stage 2 adaptive management program as provided in this subdivision.

b. The Department shall establish a load reduction goal for existing development for each municipality and county required to implement a Stage 2 adaptive management program to control nutrient loading from existing development. The load reduction goal shall be designed to achieve, relative to the baseline period 1997 through 2001, an eight percent (8%) reduction in nitrogen loading and a five percent (5%) reduction in phosphorus loading reaching Jordan Reservoir from existing developed lands within the police power jurisdiction of the local government. The baseline load shall be calculated by applying the Tar-Pamlico Nutrient Export Calculation Worksheet, Piedmont Version, dated October 2004, to acreages of different types of existing development within the police power jurisdiction of the local government during the baseline period. The baseline load may also be calculated using an equivalent or more accurate method acceptable to the Department and recommended by the Scientific Advisory Board established pursuant to Section 4(a) of this act. The baseline load for a municipality or county shall not include nutrient loading from lands under State or federal control or lands in agriculture or forestry. The load reduction goal shall be adjusted to account for nutrient loading increases from lands developed subsequent to the baseline period but prior to implementation of new development stormwater programs.

c. Based on findings under sub-subdivision a. of this subdivision, the Department shall notify the local governments in each subwatershed that either:

1. Implementation of a Stage 2 adaptive management program to control nutrient loading from existing development will be necessary to achieve water quality standards in an arm of the reservoir and direct the municipalities and counties in the subwatershed to develop a load reduction program in compliance with this section.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-216
HOUSE BILL 239
(Continued)

2. Implementation of a Stage 2 adaptive management program to control nutrient loading from existing development is not necessary at that time but will be reevaluated in three years based on the most recent water quality monitoring information.

d. A local government receiving notice of the requirement to develop and implement a Stage 2 adaptive management program to control nutrient loading from existing development under this section shall not be required to submit a program if the local government demonstrates that it has already achieved the reductions in nutrient loadings required by sub-subdivision b. of this subdivision.

e. Within six months after receiving notice to develop and implement a Stage 2 adaptive management program to control nutrient loading from existing development, each local government shall submit to the Commission a program that is designed to achieve the reductions in nutrient loadings established by the Department pursuant to sub-subdivision b. of this subdivision. A local government program may include nutrient management strategies that are not included in the model program developed pursuant to Section 3(e) of this act in addition to or in place of any component of the model program. In addition, a local government may satisfy the requirements of this subdivision through reductions in nutrient loadings from other sources in the same subwatershed to the extent those reductions go beyond measures otherwise required by statute or rule. A local government may also work with other local governments within the same subwatershed to collectively meet the required reductions in nutrient loadings from existing development within their combined jurisdictions. Any credit for reductions achieved or obtained outside of the police power jurisdiction of a local government shall be adjusted based on transport factors established by the Department document Nitrogen and Phosphorus Delivery from Small Watersheds to Jordan Lake, dated June 30, 2002.

f. Within six months following submission of a local government's Stage 2 adaptive management program to control nutrient loading from existing development, the Department shall recommend that the Commission approve or disapprove the program. The Commission shall approve the program if it meets the requirements of this subdivision, unless the Commission finds that the local government can, through the implementation of reasonable and cost-effective measures not included in the proposed program, meet the reductions in nutrient loading established by the Department pursuant to sub-subdivision b. of this subdivision by a date earlier than that proposed by the local government. If the Commission finds that there are additional or alternative reasonable and cost-effective measures, the Commission may require the local government to modify its proposed program to include such measures to achieve the required reductions by the earlier date. If the Commission requires such modifications, the local government shall submit a modified program within two months. The Department shall recommend that the Commission approve or disapprove the modified program within three months after receiving the local government's modified program. In determining whether additional or alternative load reduction measures are reasonable and cost effective, the Commission shall consider factors including, but not limited to, the increase in the per capita cost of a local government's stormwater management program that would be required to implement such measures and the cost per pound of nitrogen and phosphorus removed by such measures. The Commission shall not require additional or alternative measures that would require a local government to:

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

2. Acquire developed private property.

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

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-216
HOUSE BILL 239
(Continued)

g. Within three months after the Commission's approval of a Stage 2 adaptive management program to control nutrient loading from existing development, the local government shall complete adoption and begin implementation of its program.

h. Each local government implementing a Stage 2 adaptive management program to control nutrient loading from existing development shall submit an annual report to the Department summarizing its activities in implementing its program.

i. If at any time the Department finds, based on water quality monitoring, that an arm of the Jordan Reservoir has achieved compliance with water quality standards, the Department shall notify the local governments in the subwatershed. Subject to the approval of the Commission, a local government may modify its Stage 2 adaptive management program to control nutrient loading from existing development to maintain only those measures necessary to prevent increases in nutrient loading from existing development.

SECTION 3.(e) Model Stage 2 Adaptive Management Program to Control Nutrient Loading From Existing Development. – No later than July 1, 2013, the Department shall submit a model Stage 2 adaptive management program to control nutrient loading from existing development to the Commission for approval. The model program shall identify specific load reduction practices and programs and reduction credits associated with each practice or program and shall provide that a local government may obtain additional or alternative load-reduction credits based on site-specific monitoring data. In developing the model program, the Department shall consider the findings and recommendations of the Scientific Advisory Board established pursuant to Section 4(a) of this act and comments submitted by municipalities and counties identified in 15A NCAC 02B .0262(7) (Jordan Water Supply Nutrient Strategy: Purpose and Scope). The Commission shall review the model program and either approve the program or return it to the Department with requested changes. The Department shall revise the model program to address changes requested by the Commission. The Commission shall approve a final model program no later than December 31, 2013.

SECTION 3.(f) Additional Measures to Reduce Nitrogen Loading From Existing Development in the Upper New Hope Creek Arm of the Jordan Reservoir. – If the March 1, 2023, monitoring report or any subsequent monitoring report for the Upper New Hope Creek Arm of Jordan Reservoir shows that nutrient-related water quality standards are not being achieved, a municipality or county located in whole or in part in the Upper New Hope Creek Subwatershed shall modify its Stage 2 adaptive management program to control nutrient loading from existing development to achieve additional reductions in nitrogen loading from existing development. The modified Stage 2 adaptive management program shall be designed (35%) relative to the baseline period 1997 through 2001. The Department shall notify local governments of the requirement to submit a modified Stage 2 adaptive management program. Submission, review and approval, and implementation of a modified Stage 2 adaptive management program shall follow the process, timeline, and standards set out in sub-subdivisions e. through g. of subdivision (2) of Section 3(d) of this act.

SECTION 3.(g) Enforcement. – The Department shall enforce the provisions of this act as provided in G.S. 143-215.6A, 143-215.6B, and 143-215.6C.

SECTION 3.(h) Collective Compliance. – Local governments that are subject to regulation under this act may establish collective programs to comply with the requirements of this act.

SECTION 3.(i) Report. – The Department shall report annually to the Commission regarding the implementation of adaptive management programs to control nutrient loading from existing development in the Jordan watershed.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-216
HOUSE BILL 239
(Continued)

SECTION 3.(j) Additional Rule-Making Authority. – The Commission shall adopt a rule to replace Sections 3(c) through 3(i) of this act. Notwithstanding G.S. 150B-19(4), the rule adopted by the Commission pursuant to this section shall be substantively identical to the provisions of Sections 3(c) through 3(f) of this act. Rules adopted pursuant to this section are not subject to G.S. 150B-21.9 through G.S. 150B-21.14. Rules adopted pursuant to this section shall become effective as provided in G.S. 150B-21.3(b1) as though 10 or more written objections had been received as provided by G.S. 150B-21.3(b2).

SECTION 3.(k) No Change to Existing Regulatory Authority. – Nothing in this act shall be construed to limit, expand, or modify the authority of the Commission to undertake alternative regulatory actions otherwise authorized by State or federal law, including, but not limited to, the reclassification of waters of the State pursuant to G.S. 143-214.1, the revision of water quality standards pursuant to G.S. 143-214.3, and the granting of variances pursuant to G.S. 143-215.3.

SECTION 4.(a) Scientific Advisory Board for Nutrient-Impaired Waters Established. – No later than July 1, 2010, the Secretary shall establish a Nutrient Sensitive Waters Scientific Advisory Board. The Scientific Advisory Board shall consist of no fewer than five and no more than 10 members with the following expertise or experience:

1) Representatives of one or more local governments in the Jordan Reservoir watershed. Local government representatives shall have experience in stormwater management, flood control, or management of a water or wastewater utility.
2) One member with at least 10 years of professional or academic experience relevant to the management of nutrients in impaired water bodies and possessing a graduate degree in a related scientific discipline, such as aquatic science, biology, chemistry, geology, hydrology, environmental science, engineering, economics, or limnology.
3) One professional engineer with expertise in stormwater management, hydrology, or flood control.
4) One representative of the Department of Transportation with expertise in stormwater management.
5) One representative of a conservation organization with expertise in stormwater management, urban landscape design, nutrient reduction, or water quality.

SECTION 4.(b) Duties. – No later than July 1, 2012, the Scientific Advisory Board shall do all of the following:

1) Identify management strategies that can be used by local governments to reduce nutrient loading from existing development.
2) Evaluate the feasibility, costs, and benefits of implementing the identified management strategies.
3) Develop an accounting system for assignment of nutrient reduction credits for the identified management strategies.
4) Identify the need for any improvements or refinements to modeling and other analytical tools used to evaluate water quality in nutrient-impaired waters and nutrient management strategies.

SECTION 4.(c) Report; Miscellaneous Provisions. – The Scientific Advisory Board shall also advise the Secretary on any other issue related to management and restoration of nutrient-impaired water bodies. The Scientific Advisory Board shall submit an annual report to the Secretary no later than July 1 of each year concerning its activities, findings, and recommendations. Members of the Scientific Advisory Board shall be reimbursed for reasonable travel expenses to attend meetings convened by the Department for the purposes set out in this section.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-216
HOUSE BILL 239
(Continued)

SECTION 5. No Preemption. – A local government may adopt and implement a stormwater management program that contains provisions that are more restrictive than the standards set forth in Sections 2 and 3 of this act or in any rules concerning stormwater management in the Jordan watershed adopted by the Commission. This section shall not be construed to authorize a local government to impose stormwater management requirements on lands in agriculture or forestry.

SECTION 6. Construction of Act. –

1) Except as specifically provided in Sections 2(c) and 3(j) of this act, nothing in this act shall be construed to limit, expand, or otherwise alter the authority of the Commission or any unit of local government.
2) This act shall not be construed to affect any delegation of any power or duty by the Commission to the Department or subunit of the Department.

SECTION 7. Note to Revisor of Statutes. – Notwithstanding G.S. 164-10, the Revisor of Statutes shall not codify any of the provisions of this act. The Revisor of Statutes shall set out the text of Section 2 of this act as a note to G.S. 143-215.1 and may make notes concerning this act to other sections of the General Statutes as the Revisor of Statutes deems appropriate. The Revisor of Statutes shall set out the text of Section 3 of this act as a note to G.S. 143-214.7 and may make notes concerning this act to other sections of the General Statutes as the Revisor of Statutes deems appropriate.

SECTION 8. Effective Date. – This act is effective when it becomes law. In the General Assembly read three times and ratified this the 23rd day of June, 2009.

s/ Walter H. Dalton
President of the Senate
s/ Joe Hackney
Speaker of the House of Representatives
s/ Beverly E. Perdue
Governor

Approved 5:30 p.m. this 30th day of June, 2009

Appendix C

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838

AN ACT TO AMEND CERTAIN ENVIRONMENTAL AND NATURAL RESOURCES LAWS TO: (1) REQUIRE ELECTRONIC REPORTING OF ENVIRONMENTAL LEAD TEST RESULTS AND BLOOD LEAD TEST RESULTS; (2) CLARIFY THE FEE STRUCTURE FOR FOOD AND LODGING PERMITS; (3) REVISE THE SUNSET PROVISION FOR NUTRIENT OFFSET PAYMENTS; (4) AMEND THE SOLID WASTE DISPOSAL TAX TO STREAMLINE THE PROCESS WHEN A LOCAL GOVERNMENT IS SERVED BY A SOLID WASTE MANAGEMENT AUTHORITY; (5) REPEAL THE REQUIREMENT THAT SEASONAL STATE PARK EMPLOYEES WEAR A UNIFORM VEST; (6) CLARIFY IMPLEMENTATION OF NUTRIENT OFFSETS UNDER THE JORDAN LAKE RULES; (7) CLARIFY IMPLEMENTATION OF THE JORDAN LAKE RULES RELATED TO FEDERAL AND STATE ENTITIES; (8) MAKE CLARIFYING, CONFORMING, AND TECHNICAL AMENDMENTS TO VARIOUS LAWS RELATED TO THE ENVIRONMENT AND NATURAL RESOURCES; (9) AMEND OR REPEAL VARIOUS ENVIRONMENTAL REPORTING REQUIREMENTS; AND (10) DELAY THE EFFECTIVE DATES FOR LAWS GOVERNING THE MANAGEMENT OF DISCARDED COMPUTER EQUIPMENT AND DISCARDED TELEVISIONS TO JULY 1, 2010.

The General Assembly of North Carolina enacts:

PART I. AMEND ENVIRONMENTAL AND NATURAL RESOURCES LAWS.

SECTION 1. G.S. 130A-131.8 reads as rewritten:

"§ 130A-131.8. Laboratory ~~Reports~~ reports.~~of blood levels in children.~~

(a) All laboratories doing business in this State shall report to the Department all environmental lead test results and blood lead test results for children less than six years of age and for individuals whose ages are unknown at the time of testing. Reports shall be made by electronic submission within five working days after test ~~completion on forms provided by the Department or on self-generated forms containing:~~ completion.

(b) Reports of blood lead test results shall contain all of the following:

1) ~~the~~ The child's full name, date of birth, sex, race, ethnicity, address, and Medicaid number, if ~~any;~~ any.

2) ~~the~~ The name, address, and telephone number of the requesting health care ~~provider;~~ provider.

3) ~~the~~ The name, address, and telephone number of the testing ~~laboratory;~~ laboratory.

4) ~~the~~ The laboratory results, whether the specimen ~~type — type~~ is venous or capillary; the laboratory sample number, and the dates the sample was collected and analyzed. ~~The reports may be made by electronic submissions.~~

(c) Reports of environmental lead test results shall contain all of the following:

1) The address where the samples were collected.

2) Sample type, such as dust, paint, soil, or water.

3) Surface type, such as floor, window sill, or window trough.

4) Collection location.

5) The name, address, and telephone number of the testing laboratory.

6) The laboratory results, unit of measurement, the laboratory sample number, and the dates the sample was collected and analyzed."

SECTION 2.(a) If Senate Bill 202, 2009 Regular Session, does not become law then G.S. 130A-248(d) reads as rewritten:

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838
(Continued)

"(d) The Department shall charge each establishment subject to this section, except nutrition programs for the elderly administered by the Division of Aging and Adult Services of the Department of Health and Human Services, establishments that prepare and sell meat food products or poultry products, and public school ~~cafeterias, an annual fee of fifty dollars ($50.00). cafeterias, a fee of fifty dollars ($50.00) for each permit issued. This fee shall be reassessed annually for permits that do not expire.~~ The Commission shall adopt rules to implement this subsection. Fees collected under this subsection shall be used for State and local food, lodging, and institution sanitation programs and activities. No more than thirty-three and one-third percent (33 1/3%) of the fees collected under this subsection may be used to support State health programs and activities."

SECTION 2.(b) If Senate Bill 202, 2009 Regular Session, does become law then G.S. 130A-248(d) reads as rewritten:

"(d) The Department shall charge each establishment subject to this section, except nutrition programs for the elderly administered by the Division of Aging and Adult Services of the Department of Health and Human Services, establishments that prepare and sell meat food products or poultry products, and public school cafeterias, ~~an annual~~ a fee of seventy-five dollars ~~($75.00).~~ ($75.00) for each permit issued. This fee shall be reassessed annually for permits that do not expire. The Commission shall adopt rules to implement this subsection. Fees collected under this subsection shall be used for State and local food, lodging, and institution sanitation programs and activities. No more than thirty-three and one-third percent (33 1/3%) of the fees collected under this subsection may be used to support State health programs and activities."

SECTION 3.(a) Section 2 of S.L. 2007-438 reads as rewritten:

"SECTION 2. No later than ~~1 September 2009,~~1 September 2010, the Department of Environment and Natural Resources shall develop and implement a plan to transition the North Carolina Ecosystem Enhancement Program nutrient offset program from a fee-based program to a program based on the actual costs of providing nutrient credits. The new program shall use the least cost alternative for providing nutrient offset credits consistent with rules adopted by the Environmental Management Commission for implementation of nutrient management strategies in the Neuse River Basin and the Tar-Pamlico River Basin."

SECTION 3.(b) Section 5 of S.L. 2007-438 reads as rewritten:

"SECTION 5. This act becomes effective 1 September 2007 and applies to all nutrient offset payments, including those set out in 15A NCAC 2B .0240, as adopted by the Environmental Management Commission on 12 January 2006. The fee schedule set out in Section 1 of this act expires ~~1 September 2009.~~ 1 September 2010."

SECTION 4. G.S. 105-187.63 reads as rewritten:

"§ 105-187.63. Use of tax proceeds. From the taxes received pursuant to this Article, the Secretary may retain the costs of collection, not to exceed two hundred twenty-five thousand dollars ($225,000) a year, as reimbursement to the Department. The Secretary must credit or distribute taxes received pursuant to this Article, less the cost of collection, on a quarterly basis as follows:

1) Fifty percent (50%) to the Inactive Hazardous Sites Cleanup Fund established by G.S. 130A-310.11.

2) Thirty-seven and one-half percent (37.5%) to cities and counties in the State on a per capita basis, using the most recent annual estimate of population certified by the State Budget Officer. One-half of this amount must be distributed to cities, and one-half of this amount must be distributed to counties. For purposes of this distribution, the population of a county does not include the population of a city located in the county. A city or county is excluded from the distribution under this subdivision if it does not provide solid waste management programs and ser-

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838
(Continued)

~~services, unless it is served by a regional solid waste management authority established under Article 22 of Chapter 153A of the General Statutes.~~ The Department of Environment and Natural Resources must provide the Secretary with a list of the cities and counties that are excluded under this subdivision. The list must be provided by May 15 of each year and applies to distributions made in the fiscal year that begins on July 1 of that year. Funds distributed under this subdivision must be used by a city or county solely for solid waste management programs and services. ~~A city or county that receives funds under this subdivision and is served by a regional solid waste management authority must forward the amount it receives to that authority.~~

3) Twelve and one-half percent (12.5%) to the Solid Waste Management Trust Fund established by G.S. 130A-309.12."

SECTION 5. G.S. 113-35.1 is repealed.

SECTION 5.1. Section 5 of S.L. 2009-406 reads as rewritten:

"SECTION 5. This act shall not be construed or implemented to:

1) Extend any permit or approval issued by the United States or any of its agencies or instrumentalities.

2) Extend any permit or approval for which the term or duration of the permit or approval is specified or determined pursuant to federal law.

3) Shorten the duration that any development approval would have had in the absence of this act.

4) Prohibit the granting of such additional extensions as are provided by law.

5) Affect any administrative consent order issued by the Department of Environment and Natural Resources in effect or issued at any time from the effective date of this act to December 31, 2010.

6) Affect the ability of a government entity to revoke or modify a development approval or to accept voluntary relinquishment of a development approval by the holder of the development approval pursuant to law.

7) Modify any requirement of law that is necessary to retain federal delegation by the State of the authority to implement a federal law or program."

PART II. AMEND CERTAIN JORDAN WATER SUPPLY NUTRIENT STRATEGY RULES.

SECTION 6.(a) S.L. 2009-216 is amended by adding a new subsection to read:

"SECTION 2.(d) Section 2(b) of this act expires on the date that rules adopted pursuant to Section 2(c) of this act become effective."

SECTION 6.(b) S.L. 2009-216 is amended by adding a new subsection to read:

"SECTION 3.(k) Sections 3(c) through 3(i) of this act expire on the date that rules adopted pursuant to Section 3(j) of this act become effective."

SECTION 6.(c) Section 3(k) of S.L. 2009-216 reads as rewritten:

"~~SECTION 3.(k)~~SECTION 3.(l) No Change to Existing Regulatory Authority. – Nothing in this act shall be construed to limit, expand, or modify the authority of the Commission to undertake alternative regulatory actions otherwise authorized by State or federal law, including, but not limited to, the reclassification of waters of the State pursuant to G.S. 143-214.1, the revision of water quality standards pursuant to G.S. 143-214.3, and the granting of variances pursuant to G.S. 143-215.3."

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838
(Continued)

SECTION 7.(a) S.L. 2009-216 is amended by adding a new section to read:

"SECTION 5.(a) Definition. – As used in this section, "New Development Rule 15A NCAC 02B .0265" means 15A NCAC 02B .0265 (Jordan Water Supply Nutrient Strategy: Stormwater Management for New Development) adopted by the Commission on May 8, 2008, and approved by the Rules Review Commission on November 20, 2008.

"SECTION 5.(b) New Development Rule 15A NCAC 02B .0265. – Until the effective date of the revised permanent rule that the Commission is required to adopt pursuant to Section 5(d) of this act, the Commission and the Department shall implement New Development Rule 15A NCAC 02B .0265, as provided in Section 5(c) of this act.

"SECTION 5.(c) Implementation. – Notwithstanding sub-subdivision (vii) of sub-subdivision (a) of subdivision (3) of New Development Rule 15A NCAC 02B .0265, New Development Rule 15A NCAC 02B .0265 shall be implemented as follows:

1) New development that would exceed the nitrogen or phosphorus loading rate targets set out in sub-subdivision (i) of sub-subdivision (a) of subdivision (3) of New Development Rule 15A NCAC 02B .0265 without the use of engineered stormwater controls and that is not subject to more stringent stormwater requirements under S.L. 2006-246 or rules adopted pursuant to G.S. 143-214.5 shall have engineered stormwater controls that meet the design requirements set out in sub-subdivision (iv) of sub-subdivision (a) of subdivision (3) of New Development Rule 15A NCAC 02B .0265 and achieve eighty-five percent (85%) removal of total suspended solids.

2) A developer may offset part of the nitrogen and phosphorus load from a new development by implementing or funding off-site management measures in accordance with this subdivision. New development shall comply with requirements for engineered stormwater controls as set out in this act and in New Development Stormwater Rule 15A NCAC 02B .0265. On-site stormwater controls shall achieve a maximum nitrogen loading rate that does not exceed six pounds per acre per year for single-family detached and duplex residential development and 10 pounds per acre per year for other development, including multifamily residential, commercial, and industrial. Off-site management measures may be used to offset the difference between the nitrogen and phosphorus loading rates achieved through compliance with the stormwater control requirements of this act and the loading rate targets set out in sub-subdivision (i) of sub-subdivision (a) of subdivision (3) of New Development Rule 15A NCAC 02B .0265. Off-site offsetting measures shall achieve at least the reduction in nitrogen and phosphorus loading equivalent to the remaining reduction needed to comply with the loading rate targets set out in sub-subdivision (i) of sub-subdivision (a) of subdivision (3) of New Development Rule 15A NCAC 02B .0265. A developer may make offset payments to the North Carolina Ecosystem Enhancement Program contingent upon acceptance of payments by that Program. A developer may use an offset option provided by the local government in which the development activity occurs. A developer may propose other offset measures to the local government, including providing his or her own off-site offset or utilizing a private seller. All offset measures identified above shall meet the requirements of subdivisions (2) through (4) of 15A NCAC 02B .0273.

"SECTION 5.(d) Additional Rule-Making Authority. – The Commission shall adopt a rule to replace New Development Rule 15A NCAC 02B .0265. Notwithstanding G.S. 150B-19(4), the rule adopted by the Commission pursuant to this section shall be substantively identical to the provisions of Section 5(c) of this act. Rules adopted pursuant to this section are not subject to G.S. 150B-21.9 through G.S. 150B-21.14. Rules adopted pursuant to this section shall become effective as provided in G.S. 150B-21.3(b1) as though 10 or more written objections had been received as provided by G.S. 150B-21.3(b2).

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838
(Continued)

"SECTION 5.(e) Sunset. – Section 5(c) of this act expires on the date that rules adopted pursuant to Section 5(d) of this act become effective."

SECTION 7.(b) S.L. 2009-216 is amended by adding a new section to read:

"SECTION 6.(a) Definitions. – The following definitions apply to this section and its implementation:

1) The definitions set out in G.S. 143-212 and G.S. 143-213.

2) The definitions set out in 15A NCAC 02B .0262 (Jordan Water Supply Nutrient Strategy: Purpose and Scope) and 15A NCAC 02B .0263 (Jordan Water Supply Nutrient Strategy: Definitions).

3) "State and Federal Rule 15A NCAC 02B .0271" means 15A NCAC 02B .0271 (Jordan Water Supply Nutrient Strategy: Stormwater Requirements for State and Federal Entities), adopted by the Commission on May 8, 2008, and approved by the Rules Review Commission on October 16, 2008.

4) "Riparian Buffer Rule 15A NCAC 02B .0267" means 15A NCAC 02B .0267 (Jordan Water Supply Nutrient Strategy: Protection of Existing Riparian Buffers), adopted by the Commission on May 8, 2008, and approved by the Rules Review Commission on November 20, 2008.

"SECTION 6.(b) State and Federal Rule 15A NCAC 02B .0271. – Until the effective date of the revised permanent rule that the Commission is required to adopt pursuant to Section 6(d) of this act, the Commission and the Department shall implement the State and Federal Rule 15A NCAC 02B .0271, as provided in Section 6(c) of this act.

"SECTION 6.(c) Implementation. – Notwithstanding State and Federal Rule 15A NCAC 02B .0271, the Commission shall implement the State and Federal Rule 15A NCAC 02B .0271 as follows:

1) The load reduction goal for existing North Carolina Department of Transportation roadway and nonroadway development shall be established as provided in this subdivision. The load reduction goal shall be designed to achieve, relative to the baseline period 1997 through 2001, an eight percent (8%) reduction in nitrogen loading and a five percent (5%) reduction in phosphorus loading reaching Jordan Reservoir from existing roadway and nonroadway development in the Upper New Hope and Haw subwatersheds. The load reduction goal for the Lower New Hope arm shall be designed to maintain no increases in nitrogen and phosphorus loads from existing roadway and nonroadway development relative to the baseline period 1997 through 2001. Load reduction goals for each subwatershed shall be calculated from baseline loads for existing North Carolina Department of Transportation development present during the baseline period. Baseline loads shall be established for roadways and industrial facilities using stormwater runoff nutrient load characterization data collected through the National Pollutant Discharge Elimination System (NPDES) Research Program under NCS0000250 Permit Part II Section G. Baseline loads for other nonroadway development shall be calculated by applying the Tar-Pamlico Nutrient Export Calculation Worksheet, Piedmont Version, dated October 2004, to acreages of nonroadway development under the control of North Carolina Department of Transportation during the baseline period. The baseline load for other nonroadway development may also be calculated using an equivalent or more accurate method acceptable to the Department and recommended by the Scientific Advisory Board established pursuant to Section 4(a) of S.L. 2009-216. The load reduction goal shall be adjusted to account for nutrient loading increases from existing roadway and nonroadway development subsequent to the baseline period but prior to implementation of new development stormwater programs pursuant to 15A NCAC 02B .0271(4)(c).

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838
(Continued)

2) Sub-subdivision (b) of subdivision (3) and sub-subdivision (d) of subdivision (4) of State and Federal Rule 15A NCAC 02B .0271 shall be implemented as follows:

a. If the March 1, 2014, monitoring report or any subsequent monitoring report for the Upper New Hope Creek Arm of Jordan Reservoir required under Section 3(c) of S.L. 2009-216 shows that nutrient-related water quality standards are not being achieved, State and federal entities shall develop and implement a program to control nutrient loading from existing development within the subwatershed, as provided in this section and State and Federal Rule 15A NCAC 02B .0271. If the March 1, 2017, monitoring report or any subsequent monitoring report for the Haw River Arm or the Lower New Hope Creek Arm of Jordan Reservoir required under Section 3(c) of S.L. 2009-216 shows that nutrient-related water quality standards are not being achieved, State and federal entities shall develop and implement a program to control nutrient loading from existing development within the subwatershed, as provided in this section and State and Federal Rule 15A NCAC 02B .0271. The Department shall defer development and implementation of a program to control nutrient loading from existing development required in a subwatershed by this sub-subdivision if it determines that additional reductions in nutrient loading from existing development in that subwatershed will not be necessary to achieve nutrient-related water quality standards. In making this determination, the Department shall consider the anticipated effect of measures implemented or scheduled to be implemented to reduce nutrient loading from sources in the subwatershed other than existing development. If any subsequent monitoring report for an arm of Jordan Reservoir required under Section 3(c) of S.L. 2009-216 shows that nutrient-related water quality standards have not been achieved, the Department shall notify each State and federal entity, and each entity shall develop and implement a program to control nutrient loading from existing development as provided in this section and State and Federal Rule 15A NCAC 02B .0271.

b. If the Commission requires additional reductions in nutrient loading from local governments pursuant to Section 3(f) of S.L. 2009-216, the Commission shall require State and federal entities to modify their nutrient reduction programs for the Upper New Hope Creek subwatershed to achieve a total reduction in nitrogen loading from existing roadway and nonroadway development in nitrogen loading from existing development of thirty-five percent (35%) relative to the baseline period 1997-2001.

3) Notwithstanding sub-subdivision (d) of subdivision (4) of State and Federal Rule 15A NCAC 02B .0271, the North Carolina Department of Transportation may achieve the nutrient load reduction goal in subdivision (1) of this section for existing roadway and nonroadway development under its control by development of a load reduction program that addresses both roadway and nonroadway development in the watershed for each arm of Jordan Reservoir. A combined program to address roadway and nonroadway development may include stormwater retrofits and other load-reducing measures in the watershed including, but not limited to, illicit discharge removal; street sweeping; source control activities such as pet waste reduction and fertilizer management at NCDOT facilities; improvement of existing stormwater structures; alternative stormwater practices such as use of rain barrels and cisterns; stormwater capture and reuse; and purchase of nutrient reduction credits. NCDOT may meet minimum implementation rate and schedule requirements by implementing a combination of three stormwater retrofits per year for existing roadway development in the Jordan Lake watershed and other load-reducing measures identified in the program to control nutrient loading from existing development

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838
(Continued)

developed pursuant to State and Federal Entities Rule 15A NCAC 02B .0271 and this act and approved by the Commission.

"SECTION 6.(d) Additional Rule-Making Authority. – The Commission shall adopt a rule to replace State and Federal Rule 15A NCAC 02B .0271. Notwithstanding G.S. 150B-19(4), the rule adopted by the Commission pursuant to this section shall be substantively identical to the provisions of Section 6(c) of this act. Rules adopted pursuant to this section are not subject to G.S. 150B-21.9 through G.S. 150B-21.14. Rules adopted pursuant to this section shall become effective as provided in G.S. 150B-21.3(b1) as though 10 or more written objections had been received as provided by G.S. 150B-21.3(b2).

"SECTION 6.(e) Sunset. – Section 6(c) of this act expires on the date that rules adopted pursuant to Section 6(d) of this act become effective.

"SECTION 6.(f) Riparian Buffer Rule 15A NCAC 02B .0267. – Until the effective date of the revised permanent rule that the Commission is required to adopt pursuant to Section 6(h) of this act, the Commission and the Department shall implement the Riparian Buffer Rule 15A NCAC 02B .0267, as provided in Section 6(g) of this act.

"SECTION 6.(g) Implementation. – Notwithstanding Riparian Buffer Rule 15A NCAC 02B .0267, the Commission shall implement Riparian Buffer Rule 15A NCAC 02B .0267 as provided in this section.

1) For purposes of implementing Riparian Buffer Rule 15A NCAC 02B .0267, the Commission may only use one of the following types of maps for purposes of identifying a water body subject to the riparian buffer protection requirements of Riparian Buffer Rule 15A NCAC 02B .0267:

   a. The most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United State Department of Agriculture.

   b. The most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geological Survey.

   c. A map approved by the Geographic Information Coordinating Council and by the Commission. Prior to approving a map under this sub-subdivision, the Commission shall provide a 30-day public notice and opportunity for comment.

2) Alternative maps approved by the Commission under subdivision (1) of this section shall not be used for buffer delineation on projects that are existing and ongoing within the meaning of subdivision (6) of Riparian Buffer Rule 15A NCAC 02B .0267.

3) Sub-subdivision a. of subdivision (4) of Riparian Buffer Rule 15A NCAC 02B .0267 shall be interpreted to prohibit only those activities conducted outside the buffer that have the effect of altering the hydrology in violation of the diffuse flow requirements set out in subdivision (8) of Riparian Buffer Rule 15A NCAC 02B .0267.

"SECTION 6.(h) Additional Rule-Making Authority. – The Commission shall adopt a rule to replace Riparian Buffer Rule 15A NCAC 02B .0267. Notwithstanding G.S. 150B-19(4), the rule adopted by the Commission pursuant to this section shall be substantively identical to the provisions of Section 6(g) of this act. Rules adopted pursuant to this section are not subject to G.S. 150B-21.9 through G.S. 150B-21.14. Rules adopted pursuant to this section shall become effective as provided in G.S. 150B-21.3(b1) as though 10 or more written objections had been received as provided by G.S. 150B-21.3(b2).

"SECTION 6.(i) Sunset. – Section 6(g) of this act expires on the date that rules adopted pursuant to Section 6(h) of this act become effective."

SECTION 8. Sections 5 through 8 of S.L. 2009-216 read as rewritten:

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838
(Continued)

"~~SECTION 5.~~SECTION 7. No Preemption. – A local government may adopt and implement a stormwater management program that contains provisions that are more restrictive than the standards set forth in Sections ~~2 and 3~~2, 3, and 5 of this act or in any rules concerning stormwater management in the Jordan watershed adopted by the Commission. This section shall not be construed to authorize a local government to impose stormwater management requirements on lands in agriculture or forestry.

"~~SECTION 6.~~SECTION 8. Construction of Act. –

1) Except as specifically provided in ~~Sections 2(c) and 3(j)~~Sections 2(c), 3(j), 5(d), and 6(h) of this act, nothing in this act shall be construed to limit, expand, or otherwise alter the authority of the Commission or any unit of local government.

2) This act shall not be construed to affect any delegation of any power or duty by the Commission to the Department or subunit of the Department.

"~~SECTION 7.~~SECTION 9. Note to Revisor of Statutes. – Notwithstanding G.S. 164-10, the Revisor of Statutes shall not codify any of the provisions of this act. The Revisor of Statutes shall set out the text of Section 2 of this act as a note to G.S. 143-215.1 and may make notes concerning this act to other sections of the General Statutes as the Revisor of Statutes deems appropriate. The Revisor of Statutes shall set out the text of Sections 3, 4, 5, and 6 of this act as a note to G.S. 143-214.7 and may make notes concerning this act to other sections of the General Statutes as the Revisor of Statutes deems appropriate.

"~~SECTION 8.~~SECTION 10. Effective Date. – This act is effective when it becomes law."

PART III. ENVIRONMENTAL TECHNICAL CORRECTIONS.

SECTION 9. G.S. 120-70.61(c) reads as rewritten:

"§ 120-70.61. Membership; cochairs; vacancies; quorum.

(c) Except as otherwise provided in this section, a legislative member of the Commission shall ~~continue to~~ serve for so long as the member remains a member of the General Assembly and no successor has been appointed. A member of the General Assembly who does not seek reelection or is not reelected to the General Assembly may complete a term of service on the Commission until the day on which a new General Assembly convenes. A legislative member of the Commission who resigns or is removed from service in the General Assembly shall be deemed to have resigned or been removed from office on the Commission. Any vacancy that occurs on the Commission shall be filled in the same manner as the original appointment."

SECTION 10. G.S. 146-64(9) reads as rewritten:

"(9) "Vacant and unappropriated lands" means all State lands title to which is vested in the State as sovereign, and land acquired by the State by virtue of being sold for taxes, except ~~swamplands as hereinafter defined.~~swamplands."

SECTION 11. G.S. 130A-310.11 reads as rewritten:

"§ 130A-310.11. Inactive Hazardous Sites Cleanup Fund created.

(a) There is established under the control and direction of the Department the Inactive Hazardous Sites Cleanup Fund. This fund shall be a revolving fund consisting of any monies appropriated for such purpose by the General Assembly or available to it from grants, taxes, and other monies paid to it or recovered by or on behalf of the Department. The Inactive Hazardous Sites Cleanup Fund shall be treated as a nonreverting special trust fund and shall be credited with interest by the State Treasurer pursuant to G.S. 147-69.2 and G.S. 147-69.3.

(b) Funds credited to the Inactive Hazardous Sites Cleanup Fund pursuant to G.S. 130A-295.9 shall be used only as provided in ~~G.S. 130A-309.295.9(c).~~ G.S. 130A-295.9(1) and G.S. 130A-310.5(c)."

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838
(Continued)

PART IV. REPORTS CONSOLIDATION.

SECTION 12. G.S. 106-744(i) reads as rewritten:

"(i) The Advisory Committee shall report no later than ~~May 1~~ October 1 of each year to the Joint Legislative Commission on Governmental Operations, the Environmental Review Commission, and the House of Representatives and Senate Appropriations Subcommittees on Natural and Economic Resources regarding the activities of the Advisory Committee, the agriculture easements purchased, and agricultural projects funded during the previous year."

SECTION 13. G.S. 113-44.15(c) reads as rewritten:

"(c) Reports. – The North Carolina Parks and Recreation Authority shall report no later than October 1 of each year to the Joint Legislative Commission on Governmental Operations, the House and Senate Appropriations Subcommittees on Natural and Economic Resources, the Fiscal Research Division, and the Environmental Review Commission on allocations from the Trust Fund from the prior fiscal year. ~~The Authority also shall provide a progress report no later than March 15 of each year to the same recipients on the activities of and the expenditures from the Trust Fund for the current fiscal year."~~

SECTION 14. G.S. 113-77.9(e) reads as rewritten:

"(e) Reports. – The Secretary shall maintain and annually revise ~~twice each year~~ a list of ~~acquisitions~~ grants made pursuant to this Article. The list shall include the acreage of each tract, the county in which the tract is located, the amount ~~paid~~ awarded from the Fund to acquire the tract, and the State department or division responsible for managing the tract. The Secretary shall furnish a copy of the list to each Trustee, the Joint Legislative Commission on Governmental Operations, the House and Senate Appropriations Subcommittees on Natural and Economic Resources, the Fiscal Research Division, and the Environmental Review Commission ~~within 30 days after each revision.~~ no later than October 1 of each year."

SECTION 15. G.S. 143-58.2(f) is repealed.

PART V. DELAY EFFECTIVE DATES FOR LAWS GOVERNING THE MANAGEMENT OF DISCARDED COMPUTER EQUIPMENT AND DISCARDED TELEVISIONS.

SECTION 16.(a) Section 16.6 of S.L. 2007-550, as amended by Section 7 of S.L. 2008-208, as amended by Section 11.4 of S.L. 2008-198, reads as rewritten:

"SECTION 16.6.(a) Part 2E of Article 9 of Chapter 130A of the General Statutes, as enacted by Section 16.1(a) of this act, becomes effective as follows:

(1) G.S. 130A-309.90 becomes effective ~~1 January~~July 1, 2010.

(2) G.S. 130A-309.91 becomes effective ~~1 January~~July 1, 2010.

(3) G.S. 130A-309.92 becomes effective ~~1 January~~July 1, 2010.

(4) G.S. 130A-309.93(a) becomes effective ~~1 January~~July 1, 2010..

(5) G.S. 130A-309.93(b) becomes effective ~~1 January~~July 1, 2010.

(6) (6) G.S. 130A-309.93(c) becomes effective ~~1 January~~July 1, 2010.

(7) G.S. 130A-309.93(d) becomes effective ~~1 January~~July 1, 2010.

(8) (8) G.S. 130A-309.93(e) becomes effective ~~1 January~~July 1, 2010.

(9) G.S. 130A-309.93(f) becomes effective ~~1 January~~July 1, 2010.

(10) G.S. 130A-309.93(g) becomes effective ~~1 February~~ February 1, 2011.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009
SESSION LAW 2009-484
SENATE BILL 838
(Continued)

(10a) G.S. 130A-309.93A(a) through (f) become effective ~~1 January~~July 1, 2010.

(10b) G.S. 130A-309.93A(g) becomes effective ~~1 October~~October 1, 2011.

(10c) G.S. 130A-309.93B becomes effective ~~1 January~~July 1, 2010.

(11) G.S. 130A-309.94 becomes effective ~~1 January~~July 1, 2010.

(12) G.S. 130A-309.95(1) becomes effective ~~1 January~~July 1, 2010.

(13) G.S. 130A-309.95(2) becomes effective ~~1 January~~July 1, 2010.

(14) G.S. 130A-309.95(3) becomes effective ~~1 January~~July 1, 2010.

(14a) G.S. 130A-309.95(4) becomes effective July 1, 2010.

(15) G.S. 130A-309.96 becomes effective ~~1 January~~July 1, 2010.

(16) G.S. 130A-309.97 becomes effective ~~1 January~~July 1, 2010.

(17) G.S. 130A-309.98 becomes effective ~~15 January~~ January 15, 2011.

"SECTION 16.6.(b) Section 16.2 of this act becomes effective ~~1 January~~July 1, 2010. Sections 16.3 and 16.4 of this act become effective ~~1 January~~ January 1, 2011. Section 16.5 of this act becomes effective ~~1 July~~ July 1, 2010. Subsection (b) of Section 16.1 of this act, Section 16.6 of this act, and any other provision of Section 16 of this act for which an effective date is not specified become effective ~~1 January~~July 1, 2010."

SECTION 16.(b) Section 8 of S.L. 2008-208 reads as rewritten:

"SECTION 8. Sections ~~3, 4, and 5~~3 and 4 of this act become effective ~~1 January~~ January 1, 2011. The remainder of this act becomes effective July 1, 2010. ~~The remainder of this act is effective when it becomes law.~~"

PART VI. EFFECTIVE DATE.

SECTION 17. Sections 12, 13, 14, and 15 of this act become effective January 1, 2010. The remaining sections of this act are effective when this act becomes law. In the General Assembly read three times and ratified this the 11th day of August, 2009.

s/ Walter H. Dalton
President of the Senate

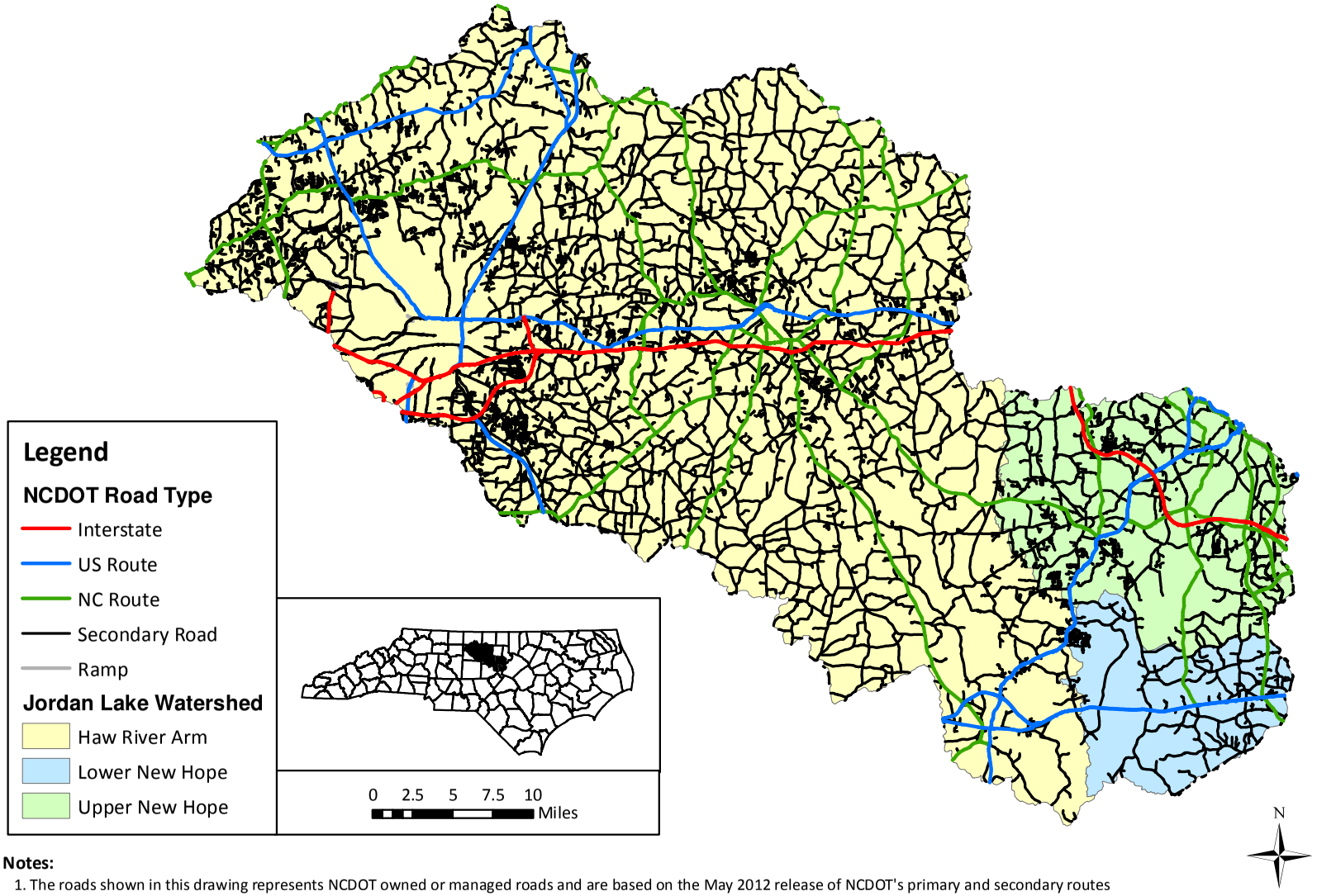
s/ Joe Hackney
Speaker of the House of Representatives

s/ Beverly E. Perdue
Governor

Approved 1:35 p.m. this 26th day of August, 2009

Appendix D

NCDOT ROADS IN THE JORDAN LAKE WATERSHED



Notes:

1. The roads shown in this drawing represents NCDOT owned or managed roads and are based on the May 2012 release of NCDOT's primary and secondary routes (http://www.ncdot.gov/it/gis/DataDistribution/DOTData).
2. The Jordan Lake Watershed boundary was obtained from NCDWQ's website (http://portal.ncdenr.org/web/jordanlake)

Appendix E

NCDOT Inspection and Maintenance Program

NCDOT has installed numerous stormwater control measures (SCM) within NCDOT rights-of-way across the state to reduce the amount of pollutants found in stormwater. A SCM is an engineered structure or device that is generally designed to slow down or hold water for a short time and remove pollutants before the water is released to a surface water body or as the water infiltrates to the ground. SCMs are widely referred to as structural best management practices (BMPs). They are also called "post-construction SCMs" because they are designed to stay in place and treat runoff after an impervious surface is built, as opposed to temporary erosion control practices (e.g., silt fences, sediment basins) used during a construction project. As of the summer of 2012, NCDOT's active SCM inventory included over 1,200 SCMs statewide.

Stormwater control measures must be routinely inspected and maintained so that they continue to function as designed. If proper maintenance is not provided, the pollutant removal performance of the SCM may be compromised. NCDOT has developed an Inspection and Maintenance (I&M) Program to address NPDES permit requirements for maintaining SCM assets. This program includes dedicated personnel responsible for the functionality of NCDOT's Stormwater Control Management System (SCMS, pronounced "skims") website, an SCM I&M Manual, training, program auditing, and cross-training between design engineers, construction, and maintenance staff to increase stormwater control measure I&M awareness within NCDOT.

I&M Program – National Pollutant Discharge Elimination System Compliance Overview

The overall goals of the I&M Program are to maintain National Pollutant Discharge Elimination System (NPDES) permit compliance and provide NCDOT field personnel the tools they need to effectively inspect and maintain SCM inventories.

Initially, the I&M Program team worked with NCDOT Information Technology and developed a database to track SCM inventories, inspections, and maintenance. NCDOT performed baseline inspections on all known stormwater controls and piloted an I&M Program with Division 3. During this pilot program the I&M team began developing a website to manage SCM inventories, document inspections and maintenance, and track the initiation and design of retrofit SCMs. A naming convention was agreed upon and the I&M Program team drafted the SCM I&M Manual.

Division Roadside Environmental Engineers refer to NCDOT's SCM I&M Manual for proper SCM function, inspection details, and maintenance techniques. I&M activities are documented in SCMS, and Level of Service (LOS) ratings are assigned to each SCM inspected. In addition, NCDOT Hydraulics Unit staff utilize SCMS to track and document information related to the design and construction of retrofit SCMs.

In recent years, the I&M Program has focused on training Division Roadside Environmental and Division Environmental personnel to manage their SCM inventories and document the inspection and maintenance of their stormwater controls on the SCMS website. Additionally, upgrades were made to SCMS to increase functionality and the I&M Program team provided training to division personnel on these upgrades. Anticipated program updates include the addition of chapters to the Stormwater Control I&M Manual and the promotion of communication between design, construction, and maintenance personnel.

The I&M Program is an integral element of NCDOT's NPDES Program. While the program receives NCDWQ approval on an annual basis, NCDOT is in regular communication with NCDWQ regarding the components and activities performed under the I&M Program throughout the year.

NCDOT's SCMS

NCDOT developed the SCMS website to track SCM inventories and manage the I&M performed on their stormwater control measures (see Figures E1-E3). SCMS offers extensive functionality including entering and storing I&M records for each SCM; mapping/location features; tracking SCM inventories by division, county, or individually; tracking research on a specific control; storing SCM-specific regulatory and roadway data; storing images and documents associated with a SCM; and generating reports. Each time an inspection is performed for a SCM, a grade or LOS rating is assigned based on the status of the SCM. Inspection details, maintenance needs determined at the time of the inspection, and the LOS rating are tracked in SCMS. NCDOT division and Highway Stormwater Program (HSP) management can view the status of inspection records, the average LOS's per division, and the I&M history for each SCM, among many other I&M program indicators. The divisions are, in turn, measured on the average LOS of their active stormwater control measures.

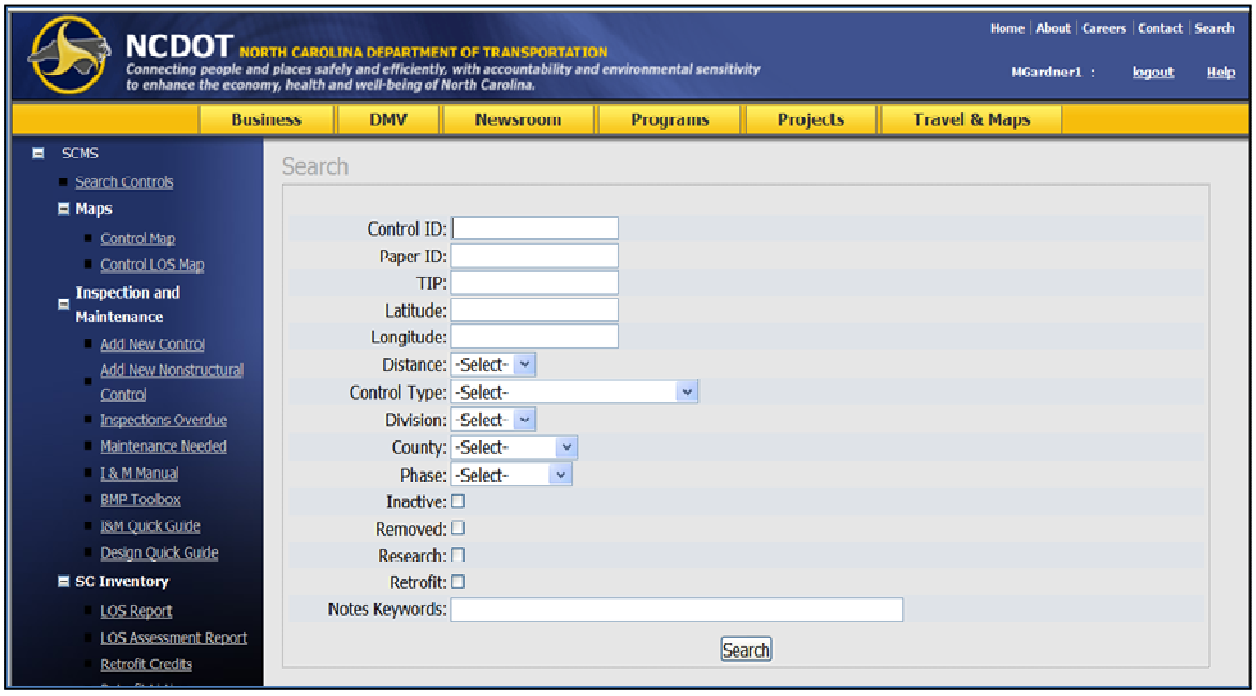


Figure E1. The Search page in NCDOT's SCMS website. Stormwater control measures can be searched by type, county, division, phase, or a combination of these and other identifiers.

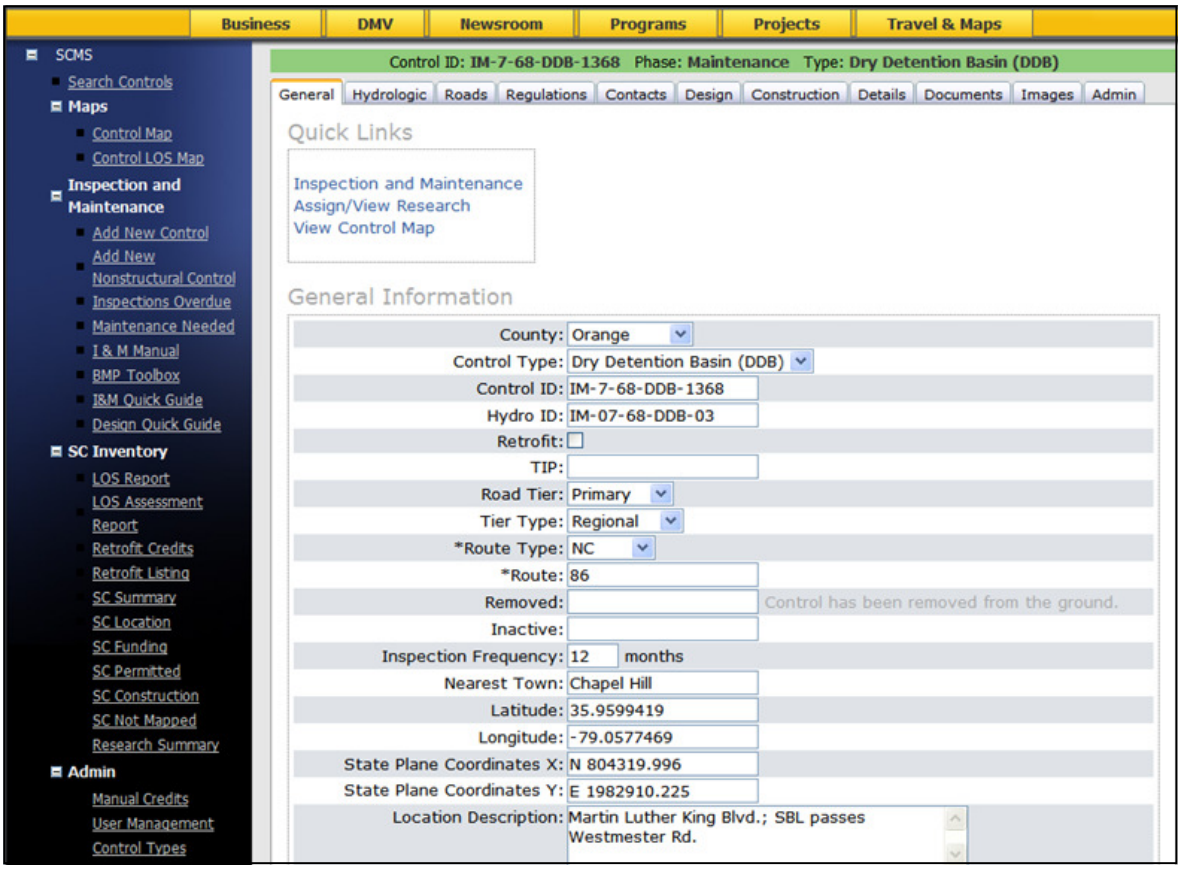


Figure E2. The General Information page in SCMS for a Dry Detention Basin in Orange County within the Jordan Lake Watershed.

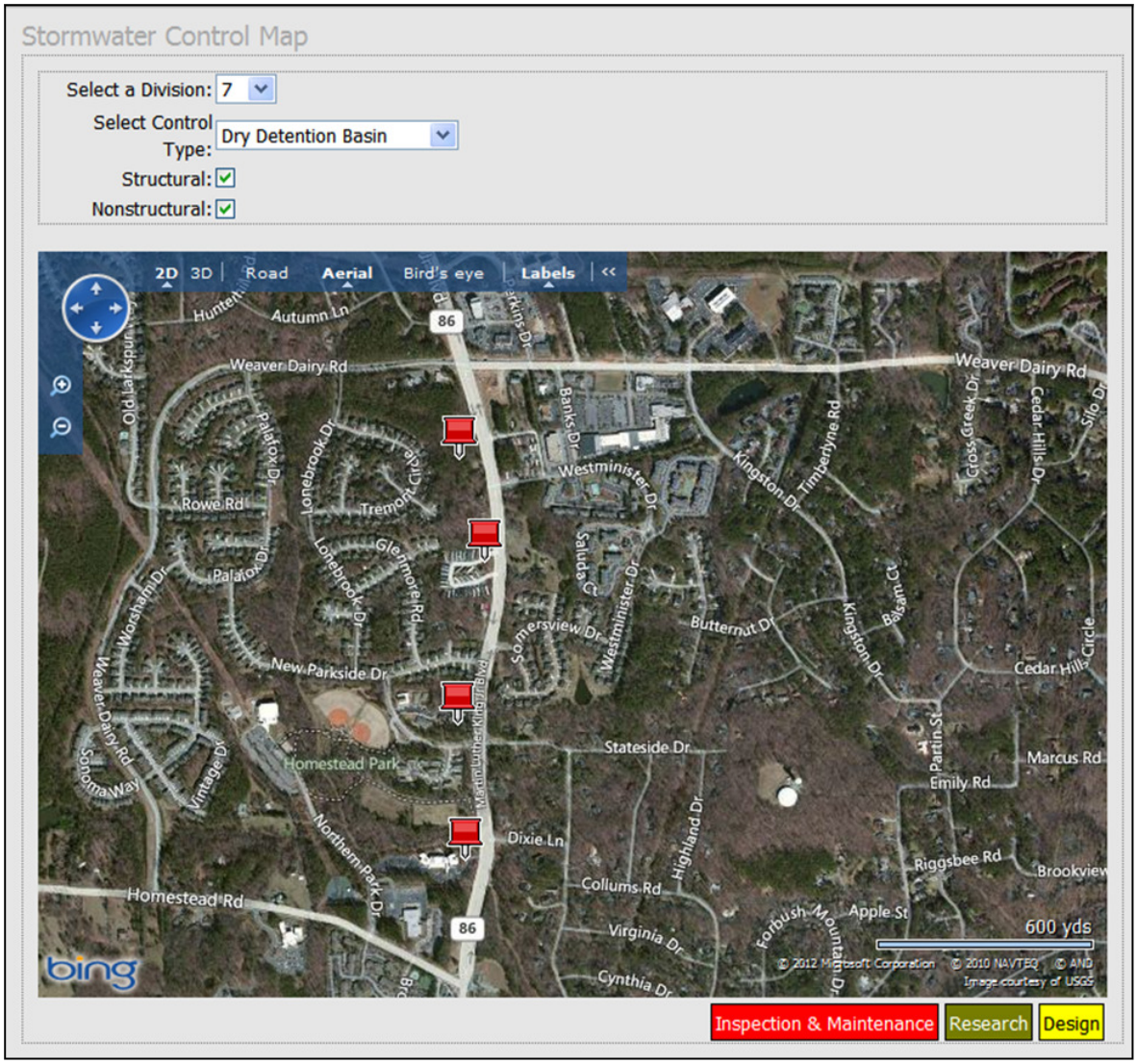


Figure E3. A screenshot from SCMS showing an aerial view of four SCMs located in Division 7 within the Jordan Lake Watershed. SCMS allows the user to link to each SCM's dedicated information page from the map.

NCDOT's Stormwater Control Measure I&M Manual

NCDOT developed a Stormwater Control Measure I&M Manual to serve as guidance for inspecting and maintaining stormwater controls on NCDOT's rights-of-way. The first four introductory chapters include a general discussion of inspection requirements and maintenance considerations (including plant species identification and reporting requirements for post-construction, structural SCMs).

The remaining chapters are dedicated to the different types of stormwater controls. Each chapter focuses on a specific SCM and includes a general description of the SCM and its components, guidance on I&M requirements for each component of the SCM, photos of the SCM, and detailed diagrams of the SCM (see example in Figure E4) that show the major treatment mechanisms.

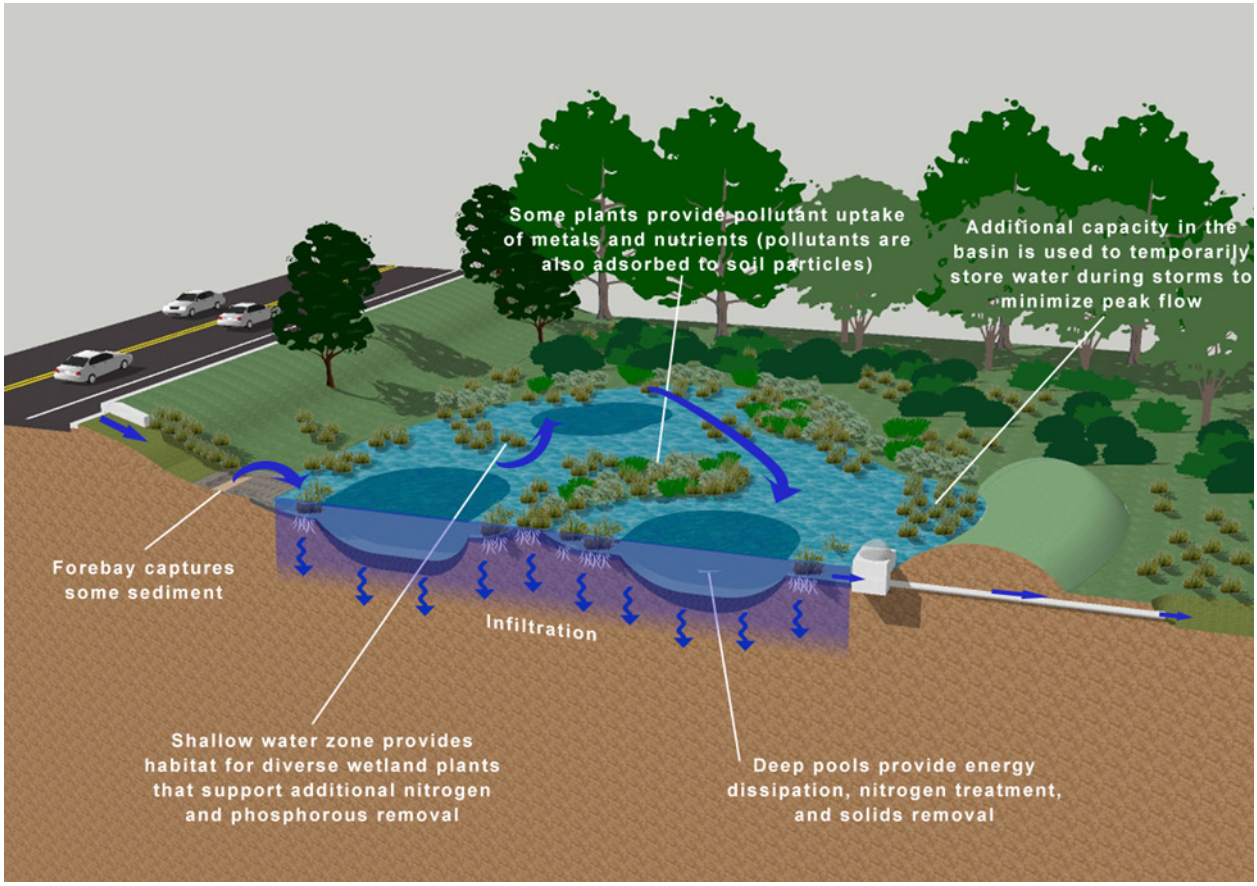


Figure E4. An example of the diagrams used in NCDOT's Stormwater Control Measure I&M Manual: A cutaway of a stormwater wetland flow diagram and treatment processes.

Appendix F

NPDES Certification Statement

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."