Fourth Annual Report
of the Nutrient Scientific Advisory Board

To the Secretary Of the
NC Department of Environment and Natural Resources

As Required by SL 2009-216

July 1, 2014

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Executive Summary

In its fourth year serving as a guide to the Division of Water Resources in implementing existing development stormwater nutrient rule requirements pursuant to Session Law 2009-216, the Nutrient Scientific Advisory Board continued to meet and actively assist the division in several efforts. This annual report is required by the session law and was assembled by division nonpoint source planning staff with guidance from, and review, by the board.

The board continued its active role in 2013-2014; it met five times and three separate board subcommittees each met multiple times to provide guidance in support of the following rule-related actions:

1. Setting Jordan Lake watershed jurisdictional nutrient load reduction assignments;
2. Establishing additional load-reducing measures, associated accounting methods; and practice standards for these measures to be used in both the Jordan and Falls watersheds;
3. Establishing an approval process guidance for these additional load-reducing measures.

More specifically, the board provided valuable input on the following priorities:

- Assisted in the development of a Jordan watershed model through a contract that was completed in October 2013. The model is expected to assist in estimating existing development nutrient reduction goals for affected parties in the watershed. The board also assisted in the review of the model by two individual reviewers and two stakeholder reviewers that were completed in March and April 2014. The contractor addressed the reviewers' comments and is currently revising the model and documentation accordingly.
- Assisted in implementation of a contract to assemble published science and make credit recommendations for six identified nutrient-reducing measures, selected with input from the board. The project was completed and submitted to the division at the end of September 2013.
- Assisted the division in developing draft practice standards and guidance for two of the aforementioned nutrient-reducing measures. Division staff will continue to develop draft standards and guidance for the remainder of the six measures and will be followed by public comment periods and final approvals during the latter half of 2014 into early 2015.
- Continued to support collaboration between DENR and Upper Neuse River Basin Association to fund and contract development of credit and standards for a large set of additional measures over the next year and a half.
- Assisted in implementation of a contract to revise a stormwater accounting tool that was originally developed by NCSU's Biological and Agriculture Engineering department for implementation of the Jordan and Falls New Development Stormwater Rules. Deliverables were submitted to the division in September 2013 and include an updated accounting tool, user's manual, operator's manual and training videos. The contractor and division also held two training workshops for the tool in October 2013..

- Continued to assist the division in its development and implementation of a draft alternative measures approval process guidance for the above measures. A draft is expected to go out to public comment within the month.

Sections I and II of this document provide summaries of each of these activities. More information on the board's activities, including previous annual reports, meeting agendas and minutes can be found at the division's NSAB website: http://portal.ncdenr.org/web/wq/nutrient-scientific-advisory-board.

Background

Session Law 2009-216 established requirements for local governments and state and federal entities in the Jordan Lake watershed to reduce nutrient loading from existing developed lands. Given the precedent-setting nature of the requirements in this evolving area of nonpoint source water quality management, the drafters of the legislation felt it was important to include a process for evaluating current practices and providing guidance to local governments in Jordan and other watersheds that may face similar requirements in the future. Therefore, the legislation also called for the formation a scientific advisory board for nutrient-impaired waters.

In July 2010, the DENR Secretary established a ten-member Nutrient Scientific Advisory Board (see Appendix B for board membership). As specified in the legislation, six of the board's members are representatives of local governments in the Jordan Lake watershed, while the remainders represent the NC Department of Transportation (NCDOT), the conservation community and water quality science and stormwater engineering expertise. In the past year, the board also decided to add an unofficial, non-voting member to represent local governments in the Falls Lake watershed.

The board completed its initial two-year charge with its July 2012 report to the Secretary, which addressed the following duties, as described in the session law:

(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.

The session law also called for the division to consider the findings and recommendations of the board on these duties when developing a model program for existing development stormwater regulations. Finally, the session law tasked the board to recommend a method for estimating existing development load reduction needs for each affected party in the Jordan watershed. The following sections of this report provide updates on the board's continuing activities of the last year.

I. Jordan Watershed Model

Background: Section 3.(d)(2)b. of Session Law 2009-216 directs DENR to quantify existing development load reduction needs for individual local governments in the Jordan watershed, and Session Law 2009-484 contains similar language for state and federal entities.

The board and its modeling subcommittee guided staff in identifying the most appropriate means of setting load reduction needs for the affected parties was to develop a watershed model. The Triangle J Council of Governments (TJCOG) was selected to administer the watershed model project. With the help of a board subcommittee, TetraTech was selected to develop the model. A scope was finalized in August 2012 and the contractor began developing the model.

Status: With close participation by the board and subcommittee, the contractor completed the model and accompanying documentation in October 2013, followed by a third-party review stage. Two independent reviews were provided by the University of Virginia and the EPA Region IV in March 2014, and two stakeholder reviews were provided by the City of Durham and the NCDOT in April 2014. With the endorsement of the board and its modeling subcommittee, the contractor finalized a scope of work for addressing the reviews in May 2014. The contractor is currently making revisions to the model and accompanying documentation in response to the reviews. This work is expected to be completed by September 2014. Discussions continue with the NCDOT to address their review comments.

The scope of work, modeling quality assurance project plan, technical memorandums, presentations and other information on the model can be found here: http://www.tjcog.org/jordan-jurisdictional-allocation-model-development.aspx

II. Nutrient Measures for Existing Development Stormwater

Background: Section 4.(b) of Session Law 2009-216 charged the board with identifying, evaluating and developing accounting methods for additional measures that could be used by affected parties to reduce nutrient loading from existing development. In its second annual report to the Secretary of DENR in July 2012, the Board identified the set of nutrient-reducing practices that are currently available and have creditable accounting methods, and developed an extensive list of other potentially creditable measures for further investigation. The division will be adding measures over time, as they can be supported by the science and drawing on all applicable studies, particularly work done by expert panels for the Chesapeake Bay Urban Stormwater Workgroup, which panels are currently being coordinated by the Chesapeake Stormwater Network[1], to expand the range of cost-effective options.

Status: The board continues to engage in several activities toward expanding the list of load-reducing measures that affected parties can use to meet regulations on existing development. The following paragraphs provide specifics on the activities in the last year.

Development of Nutrient Measures

Background: Through a 205J contract administered by the Piedmont Triad Regional Council (PTRC). TetraTech was selected to administer a project in 2013 to assemble the science and recommend crediting methods for the following six priority measures that were selected by the board:

- Repair of malfunctioning septic systems (MSS)
- Replacement of discharging sand filters (DSF)
- Volume stormwater pond retrofits
- Improved street sweeping
- Stream restoration
- Disconnected Impervious Surface (DIS).

Status: With regular board involvement, the contract was completed in September 2013. The board is currently assisting division planning staff in developing practice standards and guidance for the six measures based on the contract products. Drafts have been developed for DSF and DIS and presented to the board for their feedback. These two practice standards are expected to go out to public comment within the next month before final revisions and director approval.

Staff expects to complete a similar approval process for all six measures during the latter half of 2014 and into early 2015. These new practice standards, in addition to the approved practices already found in the department's Stormwater BMP Manual will be included in a final Existing Development Model Program in 2016 for EMC approval.

[1] Virginia Tech will be taking over coordination of the next round of expert panels for the Urban Stormwater Work Group after CSN has finished with its current commitments.

In addition to this 205J project, there are several ongoing efforts to develop accounting methods and standards for additional nutrient-reducing measures:

- The Upper Neuse River Basin Association is collaborating with DENR to fund and contract development of credit and standards for a large set of additional measures. The consultant team of Cardno-Entrix and the Center for Watershed Protection has been selected for this project. The project was launched in March 2014 and is designed to develop credit recommendations for approximately two dozen additional measures over the next year and a half.
- Based on input from the division, the NC Water Resources Research Institute has included the development of crediting and standards for nutrient measures as a research priority in its annual Request for Proposals for the last two years. The latest, 2014-2015 RFP is funding projects that will be completed by mid-2015.
- The EPA Office of Water has agreed to provide the division technical assistance to develop credits and standards for several additional measures.

Measures Approval Process

Background: The board identified the need for a transparent approval pathway for new nutrient measures to efficiently and effectively foster the establishment of such measures. The board suggested the use of some kind of tiered, progressively rigorous well-delineated approval system to both incentivize development of new measures and provide for reasonably accurate and reliable crediting.

Status: Based onboard feedback at its June 2014 meeting, division staff is making final revisions to the process description and will take it out to public comment within the next month. The proposal will present options for several aspects of the process. While the process is interpretive guidance, it is already serving a useful purpose in providing division staff and the board a shared set of expectations on how to approve measures currently being brought forward and what to include in design and credit standards.

Jordan/Falls Stormwater Load Accounting Tool Revisions

Background: The Jordan / Falls Stormwater Accounting Tool was originally developed for the division in 2010 by NCSU's Biological and Agricultural Engineering Department to guide compliance with the Jordan and Falls new development stormwater requirements. The board and the division have agreed that, with revisions, this accounting tool should also be used to estimate credits for certain measures that reduce loads from existing development.

Through a 205J grant the Piedmont Triad Regional Council (PTRC) was selected to administer the 205J contract, and the board's tool subcommittee, assisted in selection of Stormwater Solutions & Services LLC as the contractor.

Status: With regular board input, a final product, including the revised tool version 3.0, a users' manual and operator's manual was submitted to the division on September 30th, 2013. Instructional videos were also produced, and two training workshops were held for users of the tool in October 2013. The revised tool's release has been delayed while technical issues are being addressed and the division develops a policy guidance document for concurrent release.

The current version of the accounting tool can be found at:
http://www.jordanlake.org/web/jordanlake/implementation-guidance-archive

Appendix A - Session Law 2009-216

- Section 4.(a) establishes authority for formation and membership of the Nutrient Scientific Advisory Board.
- Section 4.(b) describes the duties of the board.
- Section 3.(d)(2)b describes the board's role in recommending a method for establishing existing development load reduction goals for affected parties in the Jordan watershed.

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.

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.

(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.
    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.

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 to achieve a total reduction in nitrogen loading from existing development of thirty-five percent (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.

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.

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 B - Nutrient Scientific Advisory Board (NSAB) Membership

Session Law 2009-216 (4)(a) calls for establishment of the Board and stipulates a membership of five to ten members with the expertise or experience quoted below. Names and affiliations of the members currently occupying the applicable seats are provided in the footnotes.

Table 1 - Nutrient Scientific Board Members

	NSAB Position	Member	Organization
1	Local Government Representative[1]	John Cox	City of Durham
2	Local Government Representative[1]	Trish D'Arconte	City of Chapel Hill
3	Local Government Representative[1]	Michael Layne	City of Burlington
4	Local Government Representative[1]	David Phlegar	City of Greensboro
5	Local Government Representative[1]	Josh Johnson	Cities of Mebane and Graham; Towns of Elon and Gibsonville
6	Local Government Representative[1]	Matt Flynn	City of Cary
7	Professional or Academic Representative[2]	Lawrence Band	UNC
8	Professional Engineer[3]	Bill Hunt	NCSU BAE
9	NC DOT Representative[4]	Andy McDaniel	NC DOT
10	Conservation Organization Representative[5]	Grady McCallie	NC Conservation Network
11	Falls Lake Watershed Representative[6]	Forrest Westall	Upper Neuse River Basin Association

[1] R*epresentatives of one more local government 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.*

[6] *This member was added to the Board in January 2013 at the request of the Board members. It is not a legislatively required position, and therefore in an unofficial member with no voting rights.*

(1-5 from Section 4.(a) of Session Law 2009-216)