

**GENERAL ASSEMBLY OF NORTH CAROLINA**  
**SESSION 2005**

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**SENATE BILL 981**

**Agriculture/Environment/Natural Resources Committee Substitute Adopted 6/1/05**

Short Title: Drinking Water Supply Reservoir Protection.

(Public)

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Sponsors:

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Referred to:

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March 24, 2005

A BILL TO BE ENTITLED

AN ACT TO DIRECT THE ENVIRONMENTAL MANAGEMENT COMMISSION:

(1) TO STUDY WATER QUALITY IN DRINKING WATER SUPPLY RESERVOIRS IN THE STATE, (2) TO ADOPT NUTRIENT CONTROL CRITERIA FOR DRINKING WATER SUPPLY RESERVOIRS, (3) TO DEVELOP AND IMPLEMENT A NUTRIENT MANAGEMENT STRATEGY FOR CERTAIN DRINKING WATER SUPPLY RESERVOIRS THAT ARE IMPAIRED OR THAT MAY BECOME IMPAIRED WITHIN FIVE YEARS, (4) NOT TO MAKE ANY NEW OR INCREASED NUTRIENT LOADING ALLOCATION TO ANY IMPAIRED DRINKING WATER SUPPLY RESERVOIR UNTIL RULES TO IMPLEMENT A NUTRIENT MANAGEMENT STRATEGY FOR THAT RESERVOIR BECOME EFFECTIVE, AND (5) TO REPORT TO THE ENVIRONMENTAL REVIEW COMMISSION ON PROGRESS IN DEVELOPING AND IMPLEMENTING NUTRIENT MANAGEMENT STRATEGIES FOR DRINKING WATER SUPPLY RESERVOIRS WITH IMPAIRED WATER QUALITY.

The General Assembly of North Carolina enacts:

**SECTION 1. Legislative findings.** – The General Assembly finds that:

- (1) Drinking water supply reservoirs are an essential source of water needed to meet municipal, industrial, and agricultural needs.
- (2) Drinking water supply reservoirs provide recreational opportunities and wildlife habitat and, if properly managed, improve water quality.
- (3) Management and protection of the quality and quantity of water in drinking water supply reservoirs are essential to the economic vitality of North Carolina.
- (4) Excessive nutrients are a major source of impairment of water quality in drinking water supply reservoirs.

1 (5) It would be beneficial for the State to study the condition of drinking  
2 water supply reservoirs and to develop nutrient control criteria to  
3 prevent drinking water supply reservoirs from becoming impaired.

4 (6) It would be beneficial for the State to develop calibrated nutrient  
5 response models and nutrient management strategies to ensure that  
6 drinking water supply reservoirs that are showing evidence of  
7 impairment are protected, as envisioned by Part 1 of Article 21 of  
8 Chapter 143 of the General Statutes and S.L. 1997-458, the Clean  
9 Water Responsibility and Environmentally Sound Policy Act.

10 **SECTION 2.(a) Study of drinking water supply reservoirs.** – The  
11 Environmental Management Commission shall study the water quality in the drinking  
12 water supply reservoirs in the State to determine whether the reservoirs meet current  
13 water quality standards. The Commission shall analyze existing data and report its  
14 findings and recommendations to the Environmental Review Commission by 1 May  
15 2006.

16 **SECTION 2.(b) Nutrient control criteria.** – Based on the results of the  
17 study of drinking water supply reservoirs and an evaluation of current water quality  
18 standards, the Environmental Management Commission shall identify any nutrient  
19 control criteria necessary to prevent excess nutrient loading in each drinking water  
20 supply reservoir in order to protect public health and other designated uses by 1 January  
21 2009. The Commission shall adopt final nutrient control criteria for each drinking water  
22 supply reservoir by 1 May 2010. If the Commission finds that the nutrient control  
23 criteria for any drinking water supply reservoir are not being achieved, the Commission  
24 shall develop and implement a plan for enhanced water quality monitoring in that  
25 drinking water supply reservoir within one year of the determination. The Commission  
26 shall report its progress in implementing this section, including its findings and  
27 recommendations, to the Environmental Review Commission as a part of each quarterly  
28 report it makes pursuant to G.S. 143B-282(b).

29 **SECTION 3.(a) Applicability of section to certain reservoirs.** – This  
30 section applies only to drinking water supply reservoirs that meet all of the following  
31 criteria as of 1 July 2005:

- 32 (1) The reservoir serves a population greater than 300,000 persons.  
33 (2) The Environmental Management Commission has classified all or any  
34 part of the water in the reservoir as a nutrient sensitive water (NSW).  
35 (3) Water quality monitoring data indicates that water quality in the  
36 reservoir violates the chlorophyll A standard.  
37 (4) The Division of Water Quality of the Department of Environment and  
38 Natural Resources has not prepared or updated a calibrated nutrient  
39 response model for the reservoir since 1 July 2002.

40 **SECTION 3.(b) Temporary limitation on increased nutrient loading.** – If  
41 the Environmental Management Commission determines either that water quality in all  
42 or in any part of a drinking water supply reservoir to which this section applies does not  
43 meet current water quality standards or that it is likely that water quality will not meet  
44 water quality standards at any time prior to 1 July 2010, the Commission shall not make

1 any new or increased nutrient loading allocation to any person who is required to obtain  
2 a permit under G.S. 143-215 for an individual wastewater discharge directly or  
3 indirectly into that reservoir. This subsection expires with respect to a drinking water  
4 supply reservoir when permanent rules adopted by the Commission to implement the  
5 nutrient management strategy for that reservoir become effective.

6 **SECTION 3.(c) Nutrient management strategy.** – The Environmental  
7 Management Commission shall develop a nutrient management strategy for drinking  
8 water supply reservoirs to which this section applies by 1 July 2008. The nutrient  
9 management strategy shall be based on a calibrated nutrient response model that meets  
10 the requirement of G.S. 143-215.1(c5). The nutrient management strategy shall include  
11 specific mandatory measures to achieve the reduction goals. The Commission shall  
12 consider the cost of the proposed measures in relation to the effectiveness of the  
13 measures. These measures could include, but are not limited to, buffers, erosion and  
14 sedimentation control requirements, post-construction stormwater management,  
15 agricultural nutrient reduction measures, the addition of nutrient removal treatment  
16 processes to point source permitted wastewater treatment plants, the removal of point  
17 source discharging wastewater treatments through regionalization and conversion to  
18 non-discharge treatment technologies, and any other measures that the Commission  
19 determines to be necessary to meet the nutrient reduction goals. To the extent that one  
20 or more other State programs already mandate any of these measures, the nutrient  
21 management strategy shall incorporate the mandated measures and any extension of  
22 those measures and any additional measures that may be necessary to achieve the  
23 nutrient reduction goals. The Commission shall recognize voluntary efforts to protect  
24 water quality taken prior to the development of the nutrient management strategy.

25 **SECTION 3.(d) Implementation; rulemaking.** – The Environmental  
26 Management Commission shall adopt permanent rules to implement the nutrient  
27 management strategies required by this section by 1 July 2008. The rules shall require  
28 that reductions in nutrient loading from all sources begin no later than five years after  
29 the rules become effective.

30 **SECTION 3.(e) Reports.** – The Environmental Management Commission  
31 shall report its progress in implementing this section to the Environmental Review  
32 Commission as a part of each quarterly report it makes pursuant to G.S. 143B-282(b).

33 **SECTION 4. Other drinking water supply reservoirs.** – The  
34 Environmental Management Commission shall not make any new or increased nutrient  
35 loading allocation to any person who is required to obtain a permit under G.S. 143-215  
36 for an individual wastewater discharge directly or indirectly into any drinking water  
37 supply reservoir for which the Division of Water Quality of the Department of  
38 Environment and Natural Resources has prepared or updated a calibrated nutrient  
39 response model since 1 July 2002 until permanent rules adopted by the Commission to  
40 implement the nutrient management strategy for that reservoir become effective. The  
41 Commission shall report its progress in developing and implementing nutrient  
42 management strategies for reservoirs to which this section applies to the Environmental  
43 Review Commission by 1 April 2006.

44 **SECTION 5. Effective date.** – This act is effective when it becomes law.