NORTH CAROLINA GENERAL ASSEMBLY

LEGISLATIVE FISCAL NOTE

BILL NUMBER: House Bill 900 (Second Edition)

SHORT TITLE: Nitrogen Limit/Clean Water Fund Modification

SPONSOR(S): Representative Watson

FISCAL IMPACT

Yes (X) **No ( )** **No Estimate Available ( )**

	FY 1997-98	FY 1998-99	FY 1999-00	FY 2000-01	FY 2001-02
EXPENDITURES					
State General Fund	State administrative costs for loan administration and wastewater treatment plant permitting and compliance activities may be absorbed within in the current budget for the Department of Environment, Health, and Natural Resources.				
NC Clean Water Revolving Loan and Grant Fund	The state can expect more applications from local goverment units for financial assistance in meeting the nitrogen discharge limit imposed by this bill. However, the amount of moneys available through this fund depends upon annual repayments of principle and interest for outstanding loans, and the availability of federal assistance for wastewater treatment systems.				
Local General Funds	See Assumptions and Methodology				

POSITIONS: none

PRINCIPAL DEPARTMENT(S) & PROGRAM(S) AFFECTED: Department of Environment, Health, and Natural Resources; Clean Water Management Trust Fund; local units of government

EFFECTIVE DATE: When the act becomes law

BILL SUMMARY:

TO IMPROVE THE WATER QUALITY OF THE SURFACE WATERS OF THIS STATE BY FURTHER LIMITING THE AMOUNT OF NITROGEN THAT CERTAIN LARGE FACILITIES DISCHARGE TO NUTRIENT SENSITIVE WATERS WHERE NITROGEN IS A NUTRIENT OF CONCERN, TO AUTHORIZE THE USE OF UP TO TWENTY-FIVE PERCENT OF THE FUNDS IN THE CLEAN WATER MANAGEMENT TRUST FUND FOR A PORTION OF THE COSTS TO LOCAL GOVERNMENTS OF MODIFYING EXISTING FACILITIES TO SATISFY THIS STRICTER LIMIT, AND TO AUTHORIZE THE USE OF THE CLEAN WATER MANAGEMENT FUND FOR LOANS.

Adds GS 143-215.1(c1) to forbid person who is required to obtain permit under GS 143-215.1 for facility discharging to surface waters that have been classified by Environmental Management Commission (EMC) as nitrogen-sensitive from discharging more nitrogen than 3.5 mg/liter times the volume of discharge that the permit allowed during the year ending Dec. 31, 1995. Such person must monitor the facility's discharge for nitrogen at least weekly. Exempts facilities that discharge less than 500,000 gal. per day. Amends GS 143-215.6A(a) to make violation of GS 143-215.1(c1) or of EMC rule adopted pursuant to that section subject to civil penalty of up to $10,000.

Amends GS 113-145.3 to allow expenditure from Clean Water Management Trust Fund to modify existing permitted wastewater treatment facility owned or operated by a local government unit to enable unit to comply with GS 143-215.1(c1), but limits such expenditure to 25% of total credited to fund during year ending June 30. Amends GS 113-145.4(b) to authorize board of trustees of fund to require match of up to 50% of the amount of a grant from fund to a local government unit for this purpose. [1]

Also amends GS 113-145.4 and 113-145.6 to allow Clean Water Management Trust Fund to make loans and grants (now, grants only) to eligible applicants. Requires board of trustees of Fund to establish guidelines on loan limits. Principal amount of a loan may be limited to 80% of the nonfederal share of the costs of the project unless the board waives the limit. [2]

Requires EMC to develop, by Nov. 1, 1997, schedule of dates between Nov. 1, 1997 and Jan. 1, 2005, by which existing facilities must comply with GS 143-215.1(c1).

House committee substitute adopted April 23, 1997

Replaces 1st edition. (1) Changes the bill's new GS 143-215.1(c1) to restate the limits on discharge of nitrogen by an individual wastewater permit holder into nutrient sensitive waters where nitrogen has been determined to be a nutrient of concern. States new limit in terms of the average annual mass load of total nitrogen that would result from a discharge of the permitted flow (as of 7/1/97) having a total nitrogen concentration of six milligrams per liter. Also sets limits on the maximum mass load. (2) Adds a provision allowing discharger to meet limits by reaching agreement with another discharger for the second discharger to accept the nitrogen-loaded wastewater and discharge it into the waters, within the total limits. (3) Changes the bill's new GS 113-145.3(10), which would have allowed use of Clean Water Management Trust Fund moneys by local governments to meet the new GS 143-215(c1) requirements, to specify that local governments may use such moneys only to exceed the new requirements. Makes corresponding amendments to GS 113-145.4(b). [3]

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[1] *Daily Bulletin,* Institute of Government, UNC-Chapel Hill, Vol. 1997, No. 11, February 17, 1997.
[2] *Daily Bulletin,* Institute of Government, UNC-Chapel Hill, Vol. 1997, No. 40, April 8, 1997.
[3] *Daily Bulletin,* Institute of Government, UNC-Chapel Hill, Vol. 1997, No. 49, April 23, 1997.

ASSUMPTIONS AND METHODOLOGY:

Nitrogen Discharge Limit

House Bill 900 limits nitrogen discharge for wastewater treatment plants permitted to discharge to any of the state's surface waters classified as nutrient sensitive. The limit applies to existing wastewater treatment facilities in operation, or for which construction was authorized, prior to July 1, 1997, with a discharge capacity of 500,000 gallons per day or more. The limit will also apply to any new facilities that receive construction authorization on or after July 1, 1997, regardless of discharge capacity.

According to the Department of Environment, Health, and Natural Resources (DEHNR), sufficient information is not available to estimate the necessary capital costs for facilities located in the Cape Fear, the Tar-Pamlico, the White Oak and the Chowan River Basins, which contain surface waters classified as nutrient sensitive. However, a study of the costs of upgrading wastewater facilities to meet stricter nitrogen limits performed by a private engineering firm for the Lower Neuse Basin Association can be used to provide a general idea of the magnitude of the potential fiscal impact for the Neuse and other basins.

The study completed by Piedmont, Olson and Hensley, attempted to identify those facilities in the Neuse River Basin that could be retrofitted to meet a stricter nitrogen limit versus wastewater treatment facilities that could not meet such a requirement without building a new treatment plant. The study evaluated only those treatment plants operated by members of the Lower Neuse Basin Association. This organization includes two industrial wastewater treatment plants and seventeen plants operated by local governments. The firm estimates that it will cost a total of $125 million for the nineteen membership facilities in the Neuse River Basin to meet a required nitrogen discharge limit of **3.5 milligrams per liter**. Of the $125 million, $69 million, or an average cost of $4.00 per gallon, is required to build new treatment plants for five facilities that cannot be retrofitted for compliance. And $56 million is required to retrofit all other facilities at an average cost of $0.44 per gallon.

DEHNR revised these amounts to reflect a nitrogen limit of **6 milligrams per liter** as required by this bill. In addition, the department excluded industrial dischargers, since neither the state nor local governments are responsible for the cost to these facilities, and added to the estimate the cost for municipal systems in the Neuse River Basin that were not included in the Piedmont, Olson and Hensley study. Based on these adjustments, DEHNR estimates it will cost $22.5 million to upgrade fifteen municipal facilities in the Neuse River Basin to meet the nitrogen limit required by this bill. The estimate is based on an average cost of $0.16 per gallon, with a cost range of $0.13 per gallon to $0.55 per gallon, to modify the treatment facilities of the fifteen plants. The remaining municipal wastewater treatment plants operating in the Neuse River Basin are either exempt from the requirement because their capacity is less than 500,000 gallons per day or the facility is already meeting the 6 milligrams per liter requirement. This estimate assumes the majority of facilities can be retrofitted to meet the 6 milligrams per liter limit, as

opposed to 26% of the facilities in the Piedmont, Olson and Hensley study requiring new plant construction to meet the more stringent discharge requirement of 3.5 milligrams per liter.

Estimated Cost to Local Government Units. Although the department cannot determine the aggregate cost to municipalities in the Neuse and other river basins with nutrient sensitive waters classifications, **local governments in those basins can expect the cost to retrofit an existing facility subject to the requirements of this bill to be between $0.13 per gallon and $0.55 per gallon depending upon the facility's discharge capacity and it's current level of nitrogen discharge.**

Modifications to Clean Water Management Trust Fund

The bill allows up to 25% of the annual general fund earmarking or set aside for the Clean Water Management Trust Fund (CWMTF) to be used to modify local government wastewater treatment facilities to exceed the nitrogen limit established by this act. The earmarking for the CWMTF for the 1997-98 fiscal year is currently expected to be approximately $30 million. Earmarkings for subsequent years are anticipated to be between $30 million and $40 million annually. Therefore, this legislation allows up to $7.5 million to be used in the 1997-98 fiscal year to modify local wastewater treatment plants, and between $7.5 million and $10 million to be used annually in subsequent years for this purpose.

Authorizing the Board of Trustees to make for loans from the Clean Water Management Trust Fund creates the opportunity to reallocate funds upon the repayment of the loans. This effectively increases the total availability in the fund in future fiscal years, but the amount of that availability depends upon the terms and amounts of any loans awarded by the Board of Trustees.

SOURCES OF DATA:

Department of Environment, Health, and Natural Resources, Division of Water Quality

Report to the Lower Neuse Basin Association on Costs Associated with Meeting More Stringent Nitrogen Discharge Limits. Report developed by Piedmont, Olson and Hensley, Professional Engineers for membership wastewater treatment facilities.

TECHNICAL CONSIDERATIONS:

DEHNR's estimate for wastewater treatment plants in the Neuse River Basin does not account for capacity expansions that some local governments may be considering. However, the department does not expect the cost of bringing any such expanded facilities into compliance with the nitrogen limit to be more than the average cost of $0.16 per gallon to retrofit an existing facility.

Some local governments are already in the process of or are seeking financial assistance to upgrade their treatment facilities to meet a nitrogen limit of 6 milligrams per liter.

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DATE: April 30, 1997

Signed Copy Located in the NCGA Principal Clerk's Offices