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WATER POLLUTION CONTROL



REPORT TO THE
1983 GENERAL ASSEMBLY
OF NORTH CAROLINA
1984 SESSION

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June 7, 1984

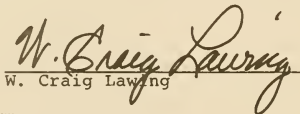
TO THE MEMBERS OF THE 1983 GENERAL ASSEMBLY
(Regular Session 1984):

The Legislative Research Commission herewith reports to the 1983 General Assembly (Regular Session 1984) on the matter of the adequacy of existing water pollution control programs to improve and protect water quality in the state. This report is made pursuant to the authority of G.S. 120-30.17(2) and subdivision (6) of section 1 of chapter 905 of the 1983 Session Laws (House Bill 1142).

This report was prepared by the Legislative Research Commission's Committee on Water Pollution Control and is transmitted by the Legislative Research Commission for your consideration.

Respectfully submitted,


Linton B. Ramsey


W. Craig Lawing

Cochairmen
Legislative Research Commission

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INTRODUCTION

The Legislative Research Commission was created by Article 6B of Chapter 120 of the General Statutes of North Carolina. Originally created in 1965 the Commission is authorized, pursuant to the direction of the General Assembly, "to make or cause to be made such studies of and investigations into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner." G.S. 120-30.17(1). The Commission is also authorized "to report to the General Assembly the results of the studies made" and to accompany these reports with recommendations and proposed legislation. G.S. 120-30.17(2). The Research Commission is cochaired by the Speaker of the House and the President Pro Tempore of the Senate and includes five additional members from each House of the General Assembly. Appendix A contains a list of members for 1983-85.

In view of the fact that water is one of our most valuable natural resources and recognizing that a clean water supply is important to the well-being of our citizens and is basic to our state's long-term economic growth, the 1983 General Assembly, in Chapter 905 of the 1983 Session Laws (House Bill 1142) authorized the Research Commission to study "adequacy of existing water pollution control programs

to improve and protect water quality in the state." This study was originally proposed in the committee substitute for House Bill 232. See appendices B and C. Section 6 of Chapter 905 of the 1983 Session Laws authorizes the Research Commission to "report its findings, together with any recommended legislation, to the 1984 Session of the General Assembly or to the 1985 General Assembly, or the Commission may make an interim report to the 1984 Session and a final report to the 1985 General Assembly. Appendix A includes a list of members of the Water Pollution Control Study Committee.

COMMITTEE PROCEEDINGS AND
IDENTIFICATION OF ISSUES

The Committee on Water Pollution Control met in December, 1983 and January, February and March, 1984. At its initial meeting, the Committee met jointly with the Committee to Study Water Quality in the Haw River and Jordan Reservoir and the Committee to Study the Water Resources of North Carolina and Virginia. The Committee also met jointly with the Haw River/Jordan Reservoir study group during the afternoon session of its second meeting. During these first two meetings the study committee members reviewed a number of issues related to water resources as well as the regulatory framework within which the state is attempting to deal with its problems.

Based on these initial sessions, the study committee identified issues which merit immediate attention during the 1984 session of the 1983 General Assembly. These issues are:

1. The problem of toxic chemicals and their effect, and perceived effect, on the quality of surface water and groundwater in North Carolina. Toxics affect the viability of water quality for recreation, wildlife and public water supplies as well as the public's perception of water quality. The manufacture and use of chemicals have increased dramatically in recent years. There are tens of

thousands of chemical compounds in use today with about 2000 new chemicals being produced yearly. To ensure the protection of our natural resources and the health of the citizens of the State, we must direct the necessary resources to ensure that such chemicals are not improperly manufactured, used, or handled in ways that may result in environmental damage. Specific illustrations of where toxics have become major issues are as follows:

- 1) Biocide investigation
- 2) Potential trace organics in the Haw River Basin
- 3) Biological monitoring of urban and other streams that indicate toxic effects
- 4) Mercury in the Abbotts Creek arm of High Rock Lake - led to fish contamination and potential human health concerns
- 5) Appearance of heavy metals and other toxic substances in water systems located in industrialized urban areas of the state

The trace organics issue in water supplies has risen most recently concerning the Haw River and Jordan Reservoir; but all developed watersheds in North Carolina that are used for water supply represent a potential for introduction of trace organics. Many citizens of North Carolina depend on surface water supplies for their drinking water. The widespread potential and nature of toxics requires immediate attention in North Carolina.

2. The problem of nutrients in North Carolina waters. The Chowan River has been experiencing increasingly severe water quality problems since the early 1970's. Overenrichment with two nutrients, nitrogen and phosphorus, has led to extensive summer algae blooms on the Chowan. Commercial fishing has declined dramatically over the same period.

The problem of nutrient enrichment or eutrophication is beginning to affect other water bodies in North Carolina. The population of North Carolina continues to increase and more new industries are discharging wastes into our streams and rivers each year. Additional nutrient problems have already surfaced in the lower Neuse River Basin. Nutrient levels in the lower Neuse are now greater than those in the Chowan. Blue-green algal blooms covered large expanses of the lower Neuse during this past summer. Concern about the water quality of Falls of the Neuse and B. Everett Jordan Lakes has also centered around nutrient enrichment. Isolated blooms of algae have already appeared in both bodies of water.

Management strategies have been developed or are being implemented to address current nutrient problems in North Carolina. However, additional water bodies such as the proposed Randleman Reservoir are likely to experience similar problems in future years. Immediate steps need to be taken to protect water quality in all of these reservoirs and to develop a program to deal with nutrient

enrichment on a statewide basis rather than react to isolated problems arising as a result of overenrichment.

With specific reference to phosphorus overenrichment, the committee heard testimony on the relative effect and cost of prohibiting or restricting levels of phosphorus in household laundry detergents versus locally funded efforts to remove phosphorus at wastewater treatment plants. Those who addressed the committee on this question included Sam Johnson, a Raleigh attorney and Robert Singer, both representing the Soap and Detergent Association, and Ellis Hankins, representing the North Carolina League of Municipalities, Mr. Avery Upchurch, Mayor of Raleigh, Mr. Terry Rolan, Director of Durham's Department of Water Resources, and Mr. James Summers, Secretary of the Department of Natural Resources and Community Development.

3. The problem of sediment entering North Carolina waters. Studies conducted within the Department of Natural Resources and Community Development have identified sediment as the most widespread water quality problem in North Carolina. Sediment impacts streams in several ways. Eroded sediment may gradually fill lakes and navigable waters or increase drinking water treatment costs. Sediment may clog the gills of fish, eliminate the available habitat of organisms which serve as food for fish, or even completely cover shellfish beds. Sediment also serves as a carrier for other pollutants. A large portion of the nutrients, especially phosphorus, entering waters through

runoff is attached to sediment. Toxic metals from urban runoff are also associated with sediment.

The lead agencies for managing the activities that often cause sediment to enter streams are the Division of Land Resources (construction, mining), and the Division of Soil and Water Conservation (agriculture). The Division of Environmental Management is responsible for monitoring the streams and evaluating the impacts.

In North Carolina, relatively large inputs of nutrients and other chemicals, such as pesticides, are required to maintain high levels of crop production. When these materials are removed from the field through rainfall runoff, the farmer is losing valuable agricultural assets. At the same time, these assets may be delivered to the state's stream system and become pollutants. The entry of sediment, nutrients, pesticides, and animal wastes into streams impacts adversely on the general public use of these waters as well as reducing the supply of clean water.

One of the major detriments to our land resource is soil erosion, the movement of soil from one place to another by water and wind. Although erosion is a continual process, it is accelerated by activities such as farming, construction, mining, or any other activity which removes vegetative cover for a period of time. Gross erosion from all sources in North Carolina is nearly 80 million tons annually. Due to the large acreage of cropland, erosion from cropland accounts for 64% of this total. Over time,

losses this great can have a dramatic effect on the productive potential of the land base.

A recent erosion study of the Upper Neuse River Basin shows that almost 600,000 tons of soil erodes annually on cropland in the Basin. If the current rate continues to the year 2000, 98% of the land will have suffered losses in production potential that cannot be recovered.

Sediment, the end product of erosion, is that portion of eroded soil which enters a water body. By volume, sediment is the largest pollutant of surface water in North Carolina. It is estimated that about 25% of eroded soil actually becomes sediment. When eroded soil reaches a water body in the form of sediment, impacts on both the physical and biological character of the water body become evident. In addition, sediment can also transport phosphorus and pesticides which the farmer needs for production and which adversely affect water quality.

A number of best management practices have been identified which can reduce non-point source pollution and prevent water quality problems from sediment erosion. The North Carolina Agricultural Research Service has shown that grassed waterways, buffer strips, minimum or non-till planting, and soil testing can all be beneficial for water quality.

In addition to sediment from agricultural activities, forestry operations, mining and construction sites are also sources of sediment runoff. Many agencies have

incorporated water quality concerns into on-going programs, but the state needs to insure that the momentum developed in recent years is maintained into the future.

4. The need for adequate wastewater treatment by local government utilities. G.S. 143-215.67 requires that wastewater in excess of a plant's capability to treat should not be accepted, unless authorized by the Environmental Management Commission. It has become clear that many municipalities in North Carolina do not yet comply with state water quality requirements. Many facilities have inadequate collection and/or treatment facilities, resulting in the discharge of improperly treated wastewater. A major concern that has arisen is that of funding adequate treatment systems. Federal construction grant monies are not projected beyond fiscal year 1985. State Clean Water Bond funds will be exhausted before the end of fiscal year 1983. The local sales tax option approved by the 1983 General Assembly will help local governments fund their treatment needs; however, it is going to be essential for local governments to plan effectively for the financing of wastewater treatment facilities. It is important to expect North Carolina local governments to comply with state water quality laws and to set an example for other water users in the State. This will not be possible unless there are financing resources and a strong local commitment to compliance.

5. The problem of freshwater runoff. In most areas of the State, freshwater, particularly of a high quality, would be considered an asset and not a pollutant. However, in coastal North Carolina, the brackish/saltwater regions represent valuable, productive nursery and fishing areas. Increased freshwater intrusions into these zones represent a pollutant and thereby affect the water quality by affecting the biological integrity of those systems. Focus on this growing concern has been provided by the Division of Marine Fisheries and the Office of Coastal Management within the Department of Natural Resources and Community Development. It is important to realize that increased freshwater runoff can be caused by many factors: increased impervious areas caused by urban development, land clearing and channelization. The protection of coastal areas from freshwater pollution must be a high priority. Specific controls and programs must be developed and made available if we are to control and manage freshwater runoff.

6. The problem of water quality management. The Environmental Management Commission is responsible for classifying and establishing water quality standards for all North Carolina streams. To ensure these standards are protected, the Commission is further charged with issuing permits to dischargers of treated wastewater. This includes all municipal, private, and industrial treatment facilities, commonly termed point sources. These permits establish the levels of pollutants that can be safely

discharged to the surface waters without degrading water quality. Dramatic improvements in water quality have been documented as a direct result of the program developed to carry out this charge. As the State has continued to grow, and as our technical capabilities have become more sophisticated, the importance of other sources of pollution has become increasingly more apparent. These other sources are termed non-point sources of pollution, and include stormwater runoff from agricultural lands, construction sites, and urban areas. Point sources and non-point sources together determine the quality of our streams.

In many cases, point source controls alone are not adequate to realize the goals established for water quality protection. For example, two-thirds of the nutrients in the Chowan and one-half of the nutrients in the Neuse are from non-point sources. In many small streams, the sediment impacts from agriculture or construction, or the toxic impacts from an urban area, are completely caused by non-point sources.

These examples clearly demonstrate the need for other state and local units of government to assume the responsibility for protecting water quality. North Carolina has begun to address this need by officially designating various state agencies as non-point source management agencies for agriculture, construction, landfills, septic tanks, and forestry. It has also begun to closely work with local units of government to help them control urban

runoff and sedimentation problems. The more effective local governments can be in reducing their inputs of nutrients, the less stringent the State can be in requiring nutrient removal from wastewater treatment facilities. This type of partnership and cooperation among various units of government will always be a critical component of a successful water quality program.

RECOMMENDATIONS

1. Control of toxic chemicals in North Carolina waters.
The committee recommends an expanded program of toxics control and evaluation.

For several years most efforts toward controlling toxics have been approached by an individual chemical approach to control specific pollutants. Yet, this approach alone presents many problems. Evaluating toxics by individual compounds is dependent on the knowledge of toxicity of the compound, and it is dependent on the knowledge of chemical mixtures of waste products. Other factors which hinder this approach are the requirements to identify and quantify all those compounds that may be in a wastewater source. With the extremely vast number of chemicals in use today, (over 44,000 developed since 1975) and with approximately 2,000 plus new compounds being developed each year, it is mandatory that other innovative approaches be employed to evaluate toxics statewide in North Carolina.

The current staffing and support funds now available are not sufficient to provide the necessary levels of activities required to efficiently and effectively address toxics in North Carolina. The basic organizational structure exist for the implementation of these programs; but

have been restrained in their effectiveness by insufficient staffing and operational support funds.

The committee recommends that expanded efforts be coordinated through five major components: monitoring; permitting; compliance; analytical support and program planning. Each of these major components will have multiple responsibilities, capabilities, and expertise necessary to comprehensively address toxic compounds in the environment. The committee further recommends that office and laboratory facilities be expanded to provide for an effective, efficient and productive toxics program. Such capital expansion would allow for expansion of our State's environmental analytical capabilities and also allow for consolidation of our technical programs into a more efficient and cost effective unit.

As part of our effort to control toxics, the committee recommends implementation of a strong Pollution Prevention program utilizing the resources of the various state agencies, the Board of Science and Technology, the Governor's Waste Management Board, the University system and other research services, and the private sector.

The committee endorses requests from the Department of Natural Resources and Community Development for approximately \$2.6 million for a toxics control program, \$5.2 million for expansion of analytical and laboratory facilities and \$183,200 for an expanded pollution prevention program.

2. Implementation of a nutrient sensitive watershed program. The committee recommends expanded efforts to control and monitor the introduction of nutrients into North Carolina waters.

With increased urbanization, industrialization and intensive agricultural practices, numerous water bodies within North Carolina are experiencing extensive levels of eutrophication. Areas such as the Chowan River Basin have undergone years of evaluation. As a result, this basin has already been classified a Nutrient Sensitive Watershed (NSW). Eutrophic trends are accelerating throughout the Neuse River Basin and efforts must begin to address these problems in an effective manner, to ensure protection of these waters. The Neuse Basin, Falls Lake, and the B. Everett Jordan watershed all may be reclassified nutrient sensitive waters. Areas such as the Deep River also require immediate attention. With increasing population comes the need for adequate drinking water supplies. Portions of the Deep River may become future water supplies for the piedmont section of the State. Current data would predict potential eutrophication as well as toxics problems for impoundments in this area. To ensure adequate and safe waters for the citizens of the State, it is essential that responsible agencies have the necessary manpower and capabilities to address such issues.

With additional waters of the State possibly becoming classified Nutrient Sensitive, several activities will be

essential to carry out the requirements and regulations of such a classification. Compliance activities will be paramount in follow-up actions in nutrient sensitive areas. Existing dischargers as well as future sources will require additional monitoring and technical assistance to ensure that water quality standards are achieved.

Local governments, cities, and towns in areas with such NSW designations must address zoning and density regulations to protect water quality. Current State environmental programs are not staffed to provide sufficient data and expertise to assist those agencies in these efforts. Non-point source input to the State's waters are also contributors to the eutrophication problems. Additional evaluations will be necessary to locate and address such sources including sediment runoff, urban runoff, and agricultural runoff. Regulatory and enforcement activities must be equipped to pursue the development of more sophisticated water quality standards, predictive model development, as well as to define critical areas within watersheds that require immediate and/or innovative approaches to address specific problems.

The committee endorses expansion of the state's nutrient sensitive watershed program as well as related programs to implement "Best Management Practices" in our agriculture and forestry sector, to expand water quality management (see below) and to control both urban and agricultural sedimentation (see below). Specifically, the

committee supports the budget requests of the Department of Natural Resources and Community Development for approximately \$4.3 million to expand this program.

The Committee further recommends enactment of legislation to restrict phosphorus levels in household laundry detergents. While this restriction will not solve all of the phosphorus problems in North Carolina, it is a cost effective first step which will begin to reduce the input of excessive levels of phosphorus to the State's surface waters.

Phosphorus enters the State's water from several sources including discharges from municipal and industrial treatment facilities, agricultural and urban runoff, and even from precipitation. However, the phosphorus from wastewater discharges is the type that is most readily available for algal growth. Wastewater phosphorus can be removed effectively at the treatment plant, but the process is expensive. Due to limited federal and state funding, removal at the wastewater treatment plant would have to be funded locally. Local governments are having difficulty obtaining funds to provide conventional sewage treatment. In fact, approximately 150 municipalities are currently under a growth moratorium because of inadequate treatment facilities. Thus, funds to remove phosphorus at the treatment plant are not likely to be available in the near future for most facilities. See Appendix H.

3. Increased control of sedimentation pollution. The

committee recommends enactment of legislation to expand the coverage of the Sedimentation Pollution Control Act, Article 4 of chapter 113A of the General Statutes.

At present, the Environmental Management Commission cannot disapprove plans submitted by private developers. Erosion and sediment control plans must be submitted by such developers before initiating construction related land disturbing activities; but only governmentally funded projects or those conducted or licensed by the state, the United States, local governments or those entities with the power of eminent domain can be disapproved by the Commission. If the plan submitted by a private developer is inadequate, the state must wait until off-site sedimentation damage has already occurred before it can require corrective action.

The proposed amendment would require that erosion control plans for private developments be approved prior to initiation of construction, where the land disturbing activity covers more than one acre. Should the State fail to approve or disapprove the plans within 30 days of receipt, the plans would automatically be deemed approved. In any case, off-site sedimentation would be a violation of the act.

Experience shows that properly designed erosion and sediment controls ultimately are cheaper than corrective actions resulting from inadequate plans, so the costs to the developers and consumers will not be increased by this

amendment. Further, the State's costs in implementing this amendment should be balanced by a reduction in enforcement actions for off-site sedimentation.

The Act already provides plan approval authority to local governments having sedimentation control ordinances. This proposed amendment would provide the State with a comparable level of responsibility and authority to that currently held by local sediment control ordinances. See Appendix D.

The Committee also recommends enactment of House Bill 541 which would provide for a tax credit against corporate or individual income taxes of 25 per cent of the cost of conservation tillage equipment, up to a maximum credit of \$2500. See Appendix E.

4. Expanded efforts to fund construction of wastewater treatment plants. The committee recommends state assistance to assure that local communities are able to comply with the law and to plan effectively for financing of adequate wastewater treatment facilities.

In fiscal year 1985 the level of federal participation in municipal projects will be reduced from 75% to 55%, and the amount of each grant will be limited to a facility capacity which meets only existing needs. This means that a federal share of 55% will be converted into approximately 35% of a project's actual needs.

Local communities now face a battery of funding problems relating to wastewater treatment facilities.

There are fewer federal dollars to go around, a lower rate of federal participation, and no federal funds for growth and expansion.

At the state level there is now approximately \$8.9 million remaining in the statewide account of the 1977 Clean Water Bond Referendum. These funds can only be used to assist in the construction of wastewater treatment plants and interceptor sewers. They will all be committed by mid 1984. The 1981 Clean Water Bond Referendum which authorized the issuance of \$300 million in bonds was repealed by the one-half percent local option sales tax. This tax should generate about \$165 million to meet water and sewer needs over the next ten years, but projected funding for wastewater treatment remains short of the investment necessary to meet water quality standards.

The committee also recommends enactment of legislation to provide for county review of waste discharge permits for private residential/commercial development. In order to insure good, long-term operation of private residential wastewater treatment systems, a mechanism for backup operation needs to be established. Because these systems are essentially public service operations, involvement of the county government in the permitting and long-term stability of these operations is needed. The proposed legislation would involve county government in public review of draft permits issued by the Environmental Management Commission under G.S. 143-215.1. In addition, at the

option of the local government any private residential development requesting permission to discharge wastewater would be required to post a bond payable to the county for ongoing operation if the permit holder fails to operate the system adequately. Agreement by a county that a permit to a private residential development should be issued would represent a commitment by the county to take over operation should the permittee fail to provide adequate operation. No permit would be issued if the county advised the commission that the county could not operate and maintain the system if the owner ceased to do so. The term "Private Residential/Commercial Development" in the context of this program means any multifamily (more than three units) housing development or any private commercial operation which results in the production of only domestic type wastewater. See Appendix F.

5. Implementation of programs to assure balanced utilization of our coastal water resources and to control freshwater runoff. The committee recommends implementation of the initiatives proposed by the Governor's Coastal Water Management Task Force and those of the Task Force's Implementation Committee.

The committee endorses the request of the Department of Natural Resources and Community Development to provide funds for inventory, demonstration projects, "Best Management Practices," research and specific water management plans, all of which are included in the Department's

Coastal Water Management Budget. Specifically, the committee supports the budget request of the Department of Natural Resources and Community Development for approximately \$465,000 to implement some recommendations of the Coastal Water Management Task Force.

6. Continued water quality management efforts. The committee recommends that efforts to monitor, manage and protect North Carolina's surface waters be continued and, if necessary, expanded to ensure that these resources can be utilized for their best use.

The State has over 40,000 miles of streams which must be evaluated and many natural and man-made impoundments. Additionally, we have many naturally occurring water bodies such as sounds, pristine rivers, wetlands, etc., which must be managed through our Water Quality Program. In the past, the Water Quality Program has worked to provide basic protection for our surface waters by preventing excessive loadings of conventional oxygen demanding material. This program includes a water quality classification system matching standards to use. This classification system should be constantly re-examined to assure that it continues to serve the needs of the state, particularly in view of recent changes in leadership at the federal level which caused confusion as to possible relaxation in Environmental Protection Agency standards. The Water Quality Program administered by the Division of Environmental Management also includes a permitting system through which to control

point source wastewater discharge and the construction of wastewater collection and treatment facilities. For point source discharges, the permit sets effluent limitations to put into action the goals established under classifications and standards. The permit also requires the discharger to routinely self-monitor his effluent and the effect on the receiving stream. There are approximately 2,400 permitted discharges in the State of which 342 are municipal facilities. At the time of permit renewal (5 years or less) the discharge is re-evaluated with regard to most recent standards and regulations to determine any new permit requirements that are necessary. Both initial permit issuance and renewal require public involvement in the permitting decisions. To assure good engineering design and proper environmental considerations in collection and treatment facilities proposed to be built, final engineering plans and specifications for each facility are required to be submitted for review and approval. Such projects include sewer lines, sewage treatment plants, and non-discharging disposal facilities such as spray irrigation and land application of sludge. Permits in this area are issued at the rate of 1,100 to 1,200 per year. Permits must properly address the operating requirements to assure water quality protection, the monitoring requirements to assess compliance with the operating requirements, and the legal basis to implement enforcement actions, if necessary, to force compliance with the standards.

Without an effective program to monitor and enforce compliance, however, the permit conditions established to meet water quality goals are little more than paper regulation incapable of producing real environmental management. An effective program requires review and evaluation of self-monitoring data, routine inspections, technical assistance, generation of non-compliance notification and enforcement actions and tracking of compliance status at each facility. In addition, the program must include the capacity to respond to complaints and emergencies involving the facilities.

At present, approximately 24 people are involved in compliance/enforcement activities for approximately 2400 permitted dischargers. This workload translates into an average of 100 facilities per person to evaluate. Since these activities are resource intensive, it is now necessary to prioritize these functions by degree of impact on water quality. As a result, a large number of facilities are not routinely inspected to assure that their self-monitoring and reporting are accurate. Past records indicate that only 600-800 facilities are inspected yearly.

In addition, pretreatment programs have been initiated at 116 applicable publicly owned treatment works that have industrial discharges requiring them to participate. At present, 92 per cent of these facilities are meeting schedules for program implementation and 90 facilities have approved programs. Oversight of these programs through

inspections and data evaluation is essential to assure effective water quality compliance.

The committee endorses efforts to expand and improve the state's capacity to monitor the effectiveness of water quality standards and classifications through collection and analysis of biological, physical, chemical and toxicological data. The committee also endorses expanded efforts to assure compliance with conditions of permits for wastewater discharge and construction of wastewater collection and treatment facilities, including increased capacity to review and evaluate self monitoring data and additional manpower for inspection and enforcement.

The committee recommends enactment of Senate Bill 270, legislation to amend North Carolina's Well Construction Act to increase civil and criminal penalties for violation of the act by enabling the Environmental Management Commission to assess civil penalties of \$100 per day for continuing violation and making a willful and flagrant violation of the act a misdemeanor punishable by a fine of up to \$1,000. See Appendix G.

7. Continued study. The Committee recommends the continuation of the study of the adequacy of existing water pollution control program to improve and protect water quality in the state.

Water is one of our most valuable natural resources and a clean water supply is important to the health and well-being of our citizens and is basic to North Carolina's

long-term economic growth. The Commission on the Future of North Carolina in its report, The Future of North Carolina, Goals and Recommendations for the Year 2000, has pointed out that the state's "economic growth sought for tomorrow requires investments today in water supply (and) wastewater systems" and has recommended strengthened efforts and expanded resource allocations to clean up and prevent water pollution, to "ensure an adequate supply and equitable allocation of water resources," and to "stop erosion and fertility loss of productive soil and reduce water pollution from sedimentation." Because of the continued importance of these issues, the committee recommends that the General Assembly authorize the Legislative Research Commission to continue to study the adequacy of existing water pollution control programs to improve and protect water quality in the state, as authorized by subdivision (6) of section 1 of chapter 905 of the 1983 Session Laws. See Appendix I.

Appendices

- A. Members, Legislative Research Commission
Water Pollution Control Study Committee
- B. House Joint Resolution 232, A JOINT RESOLUTION
AUTHORIZING THE LEGISLATIVE RESEARCH COMMISSION TO
STUDY THE ADEQUACY OF EXISTING WATER POLLUTION CONTROL
PROGRAMS TO IMPROVE AND PROTECT WATER QUALITY IN THE
STATE. Committee Substitute favorable 6/16/83.
- C. House Bill 232. AN ACT TO GIVE CAMA INPUT INTO THE
GRANTING OF PERMITS OUTSIDE THE COASTAL AREA THAT
AFFECT WATER QUALITY IN THE COASTAL AREA.
- D. Proposed legislation to amend the Sedimentation
Pollution Control Act of 1973.
- E. House Bill 541, Committee Substitute, Third Edition
Engrossed 6/28/83, to provide an income tax credit for
the purchase of conservation tillage equipment for
agriculture and forestry.
- F. Proposed legislation to amend G.S. 143-215.1 to give
the Environmental Management Commission authority to
protect the waters of the state against pollution from
package plants.
- G. Senate Bill 270, Committee Substitute, Third Edition
Engrossed 7/11/83, AN ACT TO AMEND THE WELL
CONSTRUCTION ACT TO PROVIDE FOR CIVIL PENALTIES AND
CRIMINAL PENALTIES.
- H. Proposed legislation to provide for the sale of clean
detergents in North Carolina.
- I. Proposed joint resolution to authorize the Legislative
Research Commission to continue its study of the
adequacy of existing water pollution control programs
to improve and protect water quality in the state.

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 Senator Helen R. Marvin
 Senator William W. Staton
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GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 1983

HOUSE JOINT RESOLUTION 232
Committee Substitute Favorable 6/16/83

Sponsors: Representative

Referred to: Appropriations.

February 16, 1983

1 A JOINT RESOLUTION AUTHORIZING THE LEGISLATIVE RESEARCH
 2 COMMISSION TO STUDY THE ADEQUACY OF EXISTING WATER POLLUTION
 3 CONTROL PROGRAMS TO IMPROVE AND PROTECT WATER QUALITY IN THE
 4 STATE.

5 Be it resolved by the House of Representatives, the Senate
 6 concurring:

7 Section 1. The Legislative Research Commission is
 8 authorized to conduct a thorough study of the adequacy of
 9 existing water pollution control programs to improve and protect
 10 water quality in the State. Specifically, such study shall
 11 address the impact of fresh water runoff, nutrients and chemical
 12 inputs, waste discharges and other waste contributions to the
 13 surface waters throughout the river basins of the State. The
 14 Commission may consult with any State agencies it deems
 15 appropriate and the study may include, a review of existing water
 16 quality classifications and standards, permit and monitoring
 17 programs, and the cumulative impact of localized and basin-wide
 18 pollutant contributions on water quality. The Commission shall
 19 report its findings and recommendations, including

1 recommendations for needed legislation, to the 1984 Session of
2 the General Assembly.

3 Sec. 2. This resolution is effective upon ratification.

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GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 1983

HOUSE BILL 232

Short Title: CAMA Input on Water Permits.

(Public)

Sponsors: Representatives Evans; Bruce, Ethridge, Payne, Coble,
Adams, Rabon.

Referred to: Natural and Economic Resources.

February 16, 1983

A BILL TO BE ENTITLED

AN ACT TO GIVE CAMA INPUT INTO THE GRANTING OF PERMITS OUTSIDE
THE COASTAL AREA THAT AFFECT WATER QUALITY IN THE COASTAL AREA.

The General Assembly of North Carolina enacts:

Section 1. G.S. 113A-125(b) is amended by deleting the
second sentence and substituting:

"All permits, special orders or certificates, for water
pollution control, issued pursuant to Article 21 of Chapter 143
of the General Statutes which affect coastal water quality shall
be administered in coordination and consultation with (but not
subject to the veto of) the Commission. No existing permit
within the coastal area, or any existing permit affecting coastal
water quality shall be issued, modified, renewed or terminated
except after consultation with the Commission."

Sec. 2. This act is effective upon ratification.

1 article, the Commission may require such revisions as are
2 necessary to comply with this act. The Commission must
3 approve or deny the revised plan within thirty days of
4 receipt, or it is deemed to be approved."

5 Sec. 2. The last sentence of G.S. 113A-54(f) is
6 repealed.

7 Sec. 3. G.S. 113A-57 is amended by adding a new
8 subdivision (4) to read:

9 "(4) No person shall initiate any land-disturbing
10 activity if more than one contiguous acre is to be uncovered
11 unless, thirty or more days prior to initiating the activi-
12 ty, an erosion and sedimentation control plan for such
13 activity is filed with the agency having jurisdiction."

14 Sec. 4. This act is effective upon ratification.
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GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 1983

H**3**

HOUSE BILL 541
 Committee Substitute Favorable 6/14/83
 Third Edition Engrossed 6/28/83

Short Title: Conservation Equipment Tax Credit. (Public)

Sponsors: Representative

Referred to: Finance.

March 25, 1983

1 A BILL TO BE ENTITLED
 2 AN ACT TO PROVIDE AN INCOME TAX CREDIT FOR THE PURCHASE OF
 3 CONSERVATION TILLAGE EQUIPMENT FOR AGRICULTURE AND FORESTRY.
 4 The General Assembly of North Carolina enacts:
 5 Section 1. Division I of Article 4 of Chapter 105 of
 6 the General Statutes is amended by adding a new section to read
 7 as follows:
 8 "§ 105-130.34. Credit for conservation tillage equipment.--(a)
 9 Any corporation that purchases conservation tillage equipment for
 10 use in a farming business, including tree farming, shall be
 11 allowed a credit against the tax imposed by this Division equal
 12 to twenty-five percent (25%) of the cost of the equipment. This
 13 credit may not exceed two thousand five hundred dollars (\$2,500)
 14 for any income year[H-/][H-for any taxpayer.] The credit may
 15 only be claimed by the first purchaser of the equipment and may
 16 not be claimed by a corporation that purchases the equipment for
 17 resale or for use outside this State. This credit may not exceed
 18 the amount of tax imposed by this Division for the taxable year
 19 reduced by the sum of all credits allowable under this Division,
 20 except tax payments made by or on behalf of the taxpayer. If the
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1 credit allowed by this section exceeds the tax imposed under this
2 Division, the excess may be carried forward and applied to the
3 tax imposed under this Division for the succeeding five years.
4 The basis in any equipment for which a credit is allowed under
5 this section shall be reduced by the amount of credit allowable.

6 (b) As used in this section, 'conservation tillage equipment'
7 means:

8 (1) a planter [H-such as a planter commonly known as a
9 'no-till' planter] designed to minimize disturbance of the soil
10 in

11 planting crops or trees, including equipment that
12 may be attached to equipment already owned by the taxpayer; or,

13 (2) equipment designed to minimize disturbance of the
14 soil in reforestation site preparation, including
15 equipment that may be attached to equipment already
16 owned by the taxpayer; provided, however, this
17 shall include only those items of equipment
18 generally known as a 'KG-Blade', a 'drum-chopper',
19 or a 'V-Blade'".

20 Sec. 2. Division II of Article 4 of Chapter 105 of the
21 General Statutes is amended by adding a new section to read:

22 "§ 105-151.12. Credit for conservation tillage equipment.--(a)
23 Any person who purchases conservation tillage equipment for use
24 in a farming business, including tree farming, shall be allowed a
25 credit against the tax imposed by this Division equal to twenty-
26 five percent (25%) of the cost of the equipment. This credit may
27 not exceed two thousand five hundred dollars (\$2,500) for any
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1 income year. The credit may only be claimed by the first
2 purchaser of the equipment and may not be claimed by a person who
3 purchases the equipment for resale or for use outside this State.
4 This credit may not exceed the amount of tax imposed by this
5 Division for the taxable year reduced by the sum of all credits
6 allowable under this Division, except tax payments made by or on
7 behalf of the taxpayer. If the credit allowed by this section
8 exceeds the tax imposed under this Division, the excess may be
9 carried forward and applied to the tax imposed under this
10 Division for the succeeding five years. The basis in any
11 equipment for which a credit is allowed under this section shall
12 be reduced by the amount of the credit allowable.

13 (b) As used in this section, 'conservation tillage equipment'
14 means:

15 (1) a planter [H--such as a planter commonly known as a
16 'no-till' planter] designed to minimize disturbance of the soil
17 in planting

18 crops or trees, including equipment that may be
19 attached to equipment already owned by the taxpayer; or,

20 (2) equipment designed to minimize disturbance of the
21 soil in reforestation site preparation, including
22 equipment that may be attached to equipment already
23 owned by the taxpayer; provided, however, this
24 shall include only those items of equipment
25 generally known as a 'KG-Blade', a 'drum-Chopper',
26 or a 'V-Blade'.

27 (c) In the case of conservation tillage equipment owned
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1 jointly by a husband and wife, where both spouses are required to
2 file North Carolina income tax returns, each spouse may claim
3 one-half of the credit allowed by this section or one spouse may
4 claim the entire credit allowed by this section by agreement with
5 the other spouse, provided both spouses were living together at
6 the end of the taxable year and file their separate returns for
7 the taxable year on the combined form."

8 Sec. 3. This act is effective for taxable years
9 beginning on and after January 1, 1984.

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SESSION 19 83

INTRODUCED BY:

Referred to:

1 A BILL TO BE ENTITLED

2 AN ACT TO AUTHORIZE THE ENVIRONMENTAL MANAGEMENT COMMISSION
3 TO PROTECT THE WATERS OF THE STATE AGAINST POLLUTION
4 FROM PACKAGE PLANTS

5 The General Assembly of North Carolina enacts:

6 Section 1. G.S. 143-215.1(b) is amended by adding
7 a new paragraph at the end to read:

8 "As a condition of any permit granted under the author-
9 ity of this section for a sewer system, treatment works or
10 disposal system for a new private residential or commercial
11 development, the Environmental Management Commission will
12 require that the owner of the system or works and the city
13 or county within whose boundaries the system or works lie
14 enter into an agreement regarding the operation of the
15 system or works. Under the agreement, the county or city
16 must commit itself to take over ownership, maintenance, and
17 operation of the system or works if the Environmental
18 Management Commission issues a written decision, directed to
19 the owner and to the city or county, that the terms of the
20 permit for the system or works have been repeatedly or
21 flagrantly violated. The owner must commit itself to
22 transfer all its title and interest in the system or works
23 to the city or county if and when the Environmental
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1 Management Commission issues the written decision. Further,
2 if the city or county requests, the owner must agree to give
3 to the city or county a bond or other surety that will pay
4 the reasonable expenses of the city or county in repairing,
5 equipping, operating and maintaining the system or works for
6 a period of 5 years after the Environmental Management
7 Commission issues its written decision. The agreement
8 itself must be approved in writing by the Environmental
9 Management Commission. The agreement must be irrevocable
10 except upon petition to and approval by the Environmental
11 Management Commission. The parties to the agreement may
12 include other provisions compatible with the required
13 provisions set out above. As used in this section, residen-
14 tial development means any multi-family (more than three
15 units) housing development."

16 Sec. 2. This act is effective January 1, 1985.
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GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 1983

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SENATE BILL 270
Committee Substitute Adopted 7/7/83
Third Edition Engrossed 7/11/83

Short Title: Well Construction Penalties.

(Public)

Sponsors: Senator

Referred to: State Government.

April 1, 1983

1 A BILL TO BE ENTITLED
2 AN ACT TO AMEND THE WELL CONSTRUCTION ACT, G.S. 87-83 et seq., TO
3 PROVIDE FOR CIVIL PENALTIES AND CRIMINAL PENALTIES.

4 The General Assembly of North Carolina enacts:

5 Section 1. G.S. 87-92 is amended to read as follows:

6 "§ 87-92. Hearings; Appeals.--Any person wishing to contest a
7 penalty, permit decision or other order issued under this Article
8 shall be entitled to an administrative hearing and judicial
9 review conducted according to the procedures established in G.S.
10 150A-23 through G.S. 150A-52; provided however, that any such
11 petition for judicial review may be filed in the Superior Court
12 of Wake County or in the county in which the violations occurred.
13 Requests for an administrative hearing must be made in writing
14 and served upon the Environmental Management Commission within 30
15 days of receipt of notice of the final action giving rise to the
16 hearing."

17 Sec. 2. G.S. 87-93 is hereby repealed.

18 Sec. 3. G.S. 87-94 is amended to read as follows:

19 "(a) Civil Penalties.

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1 (1) Any person who violates, on or after the effective
2 date of this act, any provision of this Article, or
3 any order issued pursuant thereto, or any duly
4 adopted regulation promulgated thereunder, shall be
5 subject to an administrative, civil penalty of not
6 more than one hundred dollars (\$100.00) for each
7 violation, as determined by the Environmental
8 Management Commission. Each day of a continuing
9 violation shall be considered a separate offense.
10 No person shall be subject to a penalty who did not
11 directly commit the violation or cause it to be
12 committed.

13 (2) No penalty shall be assessed until the person
14 alleged to be in violation has been:

15 (A) notified of the violation in accordance with
16 the notice provisions set out in G.S. 87-
17 91(a),

18 (B) informed by said notice of remedial action,
19 which if taken within 30 days from receipt of
20 the notice, will effect compliance with this
21 Article and the regulations under it, and

22 (C) warned by said notice that a civil penalty can
23 be assessed for failure to comply within the
24 specified time.

25 (3) In determining the amount of the penalty, the
26 Commission shall consider the degree and extent of
27 harm caused by the violation, the cost of
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1 rectifying the damage, the amount of money the
2 violator saved by his noncompliance, whether or not
3 the violation was committed willfully, and the
4 prior record of the violator in complying or
5 failing to comply with this Article.

6 (4) Any person assessed shall be notified of the
7 assessment by registered or certified mail, or
8 other means calculated to provide actual notice,
9 and the notice shall specify the reasons for the
10 assessment. If the person assessed fails to pay
11 the amount of the assessment to the Department of
12 Natural Resources and Community Development, or
13 fails to request an administrative hearing to
14 contest such assessment, within 30 days after
15 receipt of notice, the Commission may request the
16 Attorney General to institute a civil action to
17 recover the amount of the assessment in the
18 superior court of the county in which the person
19 assessed resides or has his or its principal place
20 of business or in which the well is located.

21 (b) Criminal Penalties. Any person who shall be adjudged to
22 have willfully and flagrantly violated this Article shall be
23 guilty of a misdemeanor, punishable by a fine not to exceed one
24 thousand dollars (\$1,000) for each violation."

25 [S-Sec. 4. G.S. 87-87 is amended by adding a new
26 subsection (5):

27 "(5) Neither adopt nor enforce any rule or regulation that
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1 concerns the civil liability of an owner to a well driller for
2 any costs or expenses of drilling and installing a well for the
3 owner."]

4 [S-~~244~~ W/][S-Sec. 5.] This act shall become effective
5 January 1, 1984.
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INTRODUCED BY:

Referred to:

1 A BILL TO BE ENTITLED
2 AN ACT TO PROVIDE FOR THE SALE OF CLEAN DETERGENTS IN NORTH
3 CAROLINA.

4 The General Assembly of North Carolina enacts:

5 Section 1. Article 44 of chapter 14 of the
6 General Statutes is amended by adding a new section to read:

7 "§14-346.3. Sale of cleaning agents containing phos-
8 phorus.

9 (a) No person shall sell any cleaning agent other than
10 a cleaning agent for machine dishwashing or cleansing of
11 medical and surgical equipment that contains more than 0.5
12 per cent phosphorus by weight.

13 (b) No person shall sell any cleaning agent for
14 machine dishwashing or cleansing of medical and surgical
15 equipment that contains more than 8.7 per cent phosphorus by
16 weight.

17 (c) No person shall sell any chemical water condition-
18 er that contains more than 20 per cent phosphorus by weight.

19 (d) For purposes of this section:

20 (1) 'cleaning agent' means any laundry detergent,
21 laundry additive, dishwashing compound, cleanser,
22 household cleaner, metal cleaner, degreasing
23 compound, commercial cleaner, industrial cleaner,
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1 phosphate compound or other substance intended to
2 be used for cleaning purposes;

3 (2) 'chemical water conditioner' means a water
4 softening chemical or other substance containing
5 phosphorus and intended to treat water for machine
6 laundry use.

7 (e) Any person who violates any provision of this
8 section shall be guilty of a misdemeanor punishable by a
9 fine not exceeding five hundred dollars (\$500.00), imprison-
10 ment for not more than six months, or both."

11 Sec. 2. This act shall become effective January
12 1, 1985.

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INTRODUCED BY:

Referred to:

1 A JOINT RESOLUTION AUTHORIZING THE LEGISLATIVE RESEARCH
2 COMMISSION TO CONTINUE ITS STUDY OF THE ADEQUACY OF EXISTING
3 WATER POLLUTION CONTROL PROGRAMS TO IMPROVE AND PROTECT
4 WATER QUALITY IN THE STATE.

5 Be it resolved by the House of Representatives, the Senate
6 concurring:

7 Whereas, subdivision (6) of section 1 of chapter
8 905 of the 1983 Session Laws (House Bill 1142) authorized
9 the Legislative Research Commission to study the issues
10 raised by House Joint Resolution 232, namely the "adequacy
11 of existing water pollution control programs to improve and
12 protect water quality in the State"; and

13 Whereas, the Legislative Research Commission's
14 Committee on Water Pollution Control met four times prior to
15 the Regular 1984 Session of the 1983 General Assembly;
16 addressed a number of water-related issues, notably the
17 effects of toxic chemicals, nutrients and sedimentation on
18 North Carolina's waters, problems of freshwater runoff into
19 our coastal waters and the problems of wastewater treatment
20 and water quality management; and

21 Whereas, the Commission on the Future of North
22 Carolina in its report, The Future of North Carolina, Goals
23 and Recommendations for the Year 2000, has pointed out that
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1 the state's "economic growth sought for tomorrow requires
2 investments today in water supply (and) wastewater systems"
3 and has recommended strengthened efforts and expanded
4 resource allocations to clean up and prevent water pollu-
5 tion, to "ensure an adequate supply and equitable allocation
6 of water resources," and to "stop erosion and fertility loss
7 of productive soil and reduce water pollution from sedimen-
8 tation;"

9 Now, therefore, be it resolved by the House of
10 Representatives, the Senate concurring:

11 Section 1. The Legislative Research Commission is
12 authorized to continue to study the adequacy of existing
13 water pollution control programs to improve and protect
14 water quality in the state, as authorized by subdivision (6)
15 of section 1 of chapter 905 of the 1983 Session Laws.

16 Sec. 2. The Commission may report its findings,
17 together with any recommended legislation, to the 1985
18 General Assembly.

19 Sec. 3. This resolution is effective upon ratifi-
20 cation.

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