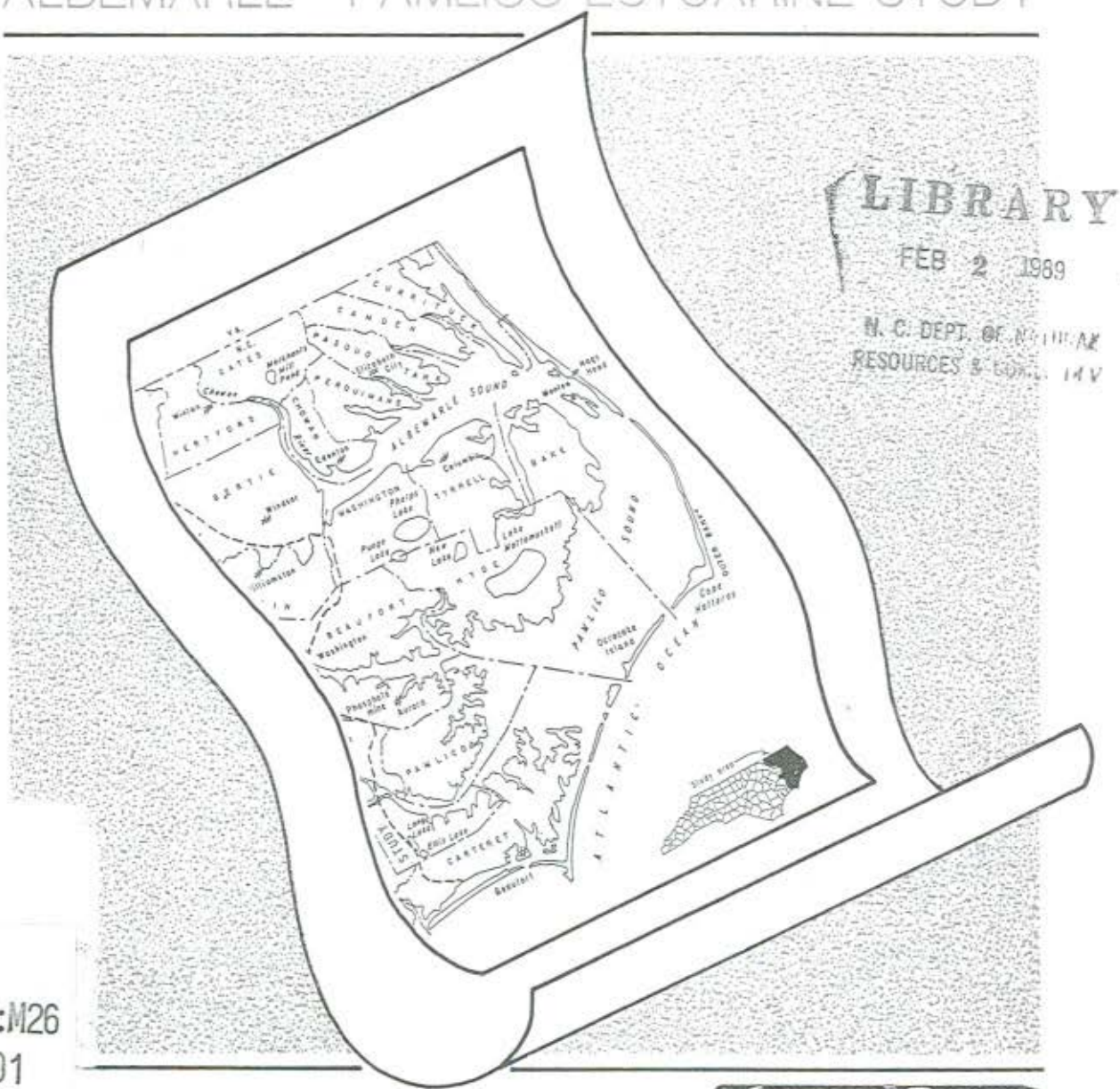
Project No. 86-01

MANAGEMENT PROGRAMS AND OPTIONS FOR THE ALBEMARLE-PAMLICO ESTUARINE STUDY

ALBEMARLE - PAMLICO ESTUARINE STUDY



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ALBEMARLE-PAMLICO

MANAGEMENT PROGRAMS AND OPTIONS FOR THE ALBEMARLE-PAMLICO ESTUARINE STUDY

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ABSTRACT

This document describes the existing management system in the Albemarle and Pamlico Sounds by classifying existing federal and state statutes according to the environmental problems they might address. The seven categories of environmental manifestations (aquatic habitat modification, freshwater drainage, oxygen-demanding substances, toxicants, sediment flux, coliform bacteria, and nutrient flux) are those used to examine conflict and competition among societal uses. For each manifestation, federal legislation with major, minor or marginal impacts are listed as well as those North Carolina statutes which have a major impact. Following this classification is a listing of all federal and state legislation considered part of the existing management system as well as brief descriptions of each federal statute and the North Carolina statutes that have a major impact. The final section of this document is a listing of local tools and techniques available for managing development around the Albemarle and Pamlico Sounds. This listing is followed by a more detailed description of these various growth management options.

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SUMMARY AND CONCLUSIONS

This document examines the existing federal, state, and local statutory framework within which environmental problems are currently being managed. Many of the statutes considered in this document were designed to cope with or remediate environmental problems. Others have been included because of their general impact on land use. Despite the quantity of statutes that currently exist, it is apparent that these pieces of legislation have not succeeded in resolving the problems of conflict and competition that presently exist in the Albemarle and Pamlico Sounds. This document classifies federal and state legislation according to the environmental problems they address and also includes a description of various tools and techniques available to local jurisdictions for managing development. It is hoped that by categorizing these statutes according to the environmental manifestations they address and then providing brief descriptions of this legislation, it should be possible to design a management system that ensures the integrity and productivity of North Carolina's estuarine system.

In general, there are two types of federal and state legislation that have an affect on environmental problems. The first type involves statutes specifically enacted to address particular environmental problems. Examples of this type of legislation are the federal Endangered Species Act of 1973 and the North Carolina Oil Pollution and Hazardous Substances Control Act.

The second type of statute involves those that have an affect on general land use. Examples of this type of statute are the federal Coastal Zone Management Act of 1972 and the North Carolina Coastal Area Management Act. Taken together, both types of legislation comprise the management system that regulates land use around the Albemarle and Pamlico Sounds.

A comprehensive view of the universe of management tools currently available should be provided by this document. It should also provide insight into those statutes, programs, tools and techniques most pertinent to effective management of the Albemarle and Pamlico Sounds. By viewing these management tools from the perspective of the most critical environmental conflicts, it is hoped that an assessment can be made of the current management system and the building blocks of a better management system be identified. While it is apparent that a wide variety of tools, techniques and authority currently exists, it is important to recognize that the current management system appears to suffer from a lack of coordination and from problems of insufficient political, financial and administrative support.

FEDERAL AND STATE LEGISLATION DEFINED BY ENVIRONMENTAL MANIFESTATIONS/IMPACTS

AQUATIC HABITAT MODIFICATION

Federal Legislation with Major Impact:

- Anadramous Fish Conservation Act
- Coastal Barrier Resources Act
- Coastal Zone Management Act of 1972
- Department of Transportation Act of 1966
- Disaster Relief Act of 1974
- Endangered Species Act of 1973
- Federal Land Policy and Management Act of 1976
- Federal Water Pollution Control Act Amendments of 1972
- Fish and Wildlife Act of 1956
- Fish and Wildlife Conservation Act of 1980
- Fish and Wildlife Coordination Act of 1934
- Fishery Conservation and Management Act of 1976
- Forest and Rangeland Renewable Resource Planning Act
- Land and Water Conservation Fund Act
- Marine Mammal Protection Act of 1972
- Marine Protection, Research, and Sanctuaries Act of 1972
- Migratory Bird Conservation Act
- Migratory Bird Treaty Act
- Mineral Leasing Act of 1920
- National Environmental Policy Act
- National Flood Insurance Act of 1968
- Rivers and Harbors Act of 1899
- Rivers and Harbors Act of 1917
- Rivers and Harbors Act of 1968
- Water Quality Improvement Act of 1970

Federal Legislation with Minor Impact:

- Airport and Airway Improvement Act of 1982
- Commercial Fisheries Research and Development Act of 1964
- Energy Supply and Environmental Coordination Act of 1974
- Fish Restoration and Management Projects Act of 1950

Federal Legislation with Marginal or Extremely Minor Impacts:

- Deep Seabed Hard Mineral Resource Act of 1980
- Deepwater Port Act of 1974
- Federal Water Power Act of 1920
- Federal Power Act (1935)
- National Ocean Pollution Research and Development and Planning Monitoring Act of 1978
- Natural Gas Policy Act of 1978
- Ocean Thermal Energy Conversion Act of 1980
- Ocean Thermal Energy Research, Development, and Demonstration Act
- Outer Continental Shelf Lands Act
- Public Health Services Act
- Water Bank Act of 1970

North Carolina Legislation with a Major Impact:

- Air and Water Resources Act
- Coastal Area Management Act

Dredge and Fill Act
Emergency Management Act
Environmental Policy Act of 1971
Fisherman's Economic Development Program
Mining Act of 1971
Mosquito Control Districts
Natural and Scenic River System Act of 1971
Oil Pollution and Hazardous Substances Control Act
Small Watershed Projects Act
Soil and Water Conservation Districts Act
Stream Sanitation Act
Watershed Improvement Districts Act
Watershed Improvement Programs Act
Wildlife Resources Law

FRESHWATER DRAINAGE

Federal Legislation with Major Impact:

Coastal Zone Management Act of 1972
Endangered Species Act of 1973
Forest and Rangeland Renewable Resource Planning Act
Land and Water Conservation Fund Act
Marine Protection, Research, and Sanctuaries Act of 1972
Migratory Bird Conservation Act
Migratory Bird Treaty Act
Mineral Leasing Act of 1920
National Environmental Policy Act
National Flood Insurance Act of 1968
Soil Conservation Act
Watershed Protection and Flood Prevention Act

Federal Legislation with Minor Impact:

Airport and Airway Improvement Act of 1982

Federal Legislation with Marginal or Extremely Minor Impacts:

Federal Water Power Act of 1920
Federal Power Act (1935)
Food and Agriculture Act of 1962
Interstate Land Sales Full Disclosure Act of 1969
National Ocean Pollution Research and Development and Planning Monitoring Act of 1978
Water Bank Act of 1970

North Carolina Legislation with a Major Impact:

Agricultural Development Act
Air and Water Resources Act
Coastal Area Management Act
County Service Districts Act
Dredge and Fill Act
Environmental Compact Act

Environmental Policy Act of 1971
Forest Development Act
Mining Act of 1971
Municipal Service Districts Act of 1973
Natural and Scenic River System Act of 1971
Regional Water Supply Planning Act of 1971
Sedimentation Pollution Control Act of 1973
Small Watershed Projects Act
Soil and Water Conservation Districts Act
Stream Sanitation Act
Water Use Act of 1967
Watershed Improvement Districts Act

OXYGEN-DEMANDING SUBSTANCES

Federal Legislation with Major Impact:

Clean Water Act of 1977
Coastal Zone Management Act of 1972
Endangered Species Act of 1973
Federal Water Pollution Control Act Amendments of 1972
Housing and Community Development Act
Land and Water Conservation Fund Act
Marine Protection, Research, and Sanctuaries Act of 1972
Mineral Leasing Act of 1920
National Environmental Policy Act
Solid Waste Disposal Act of 1965
Water Quality Improvement Act of 1970

Federal Legislation with Minor Impact:

Energy Reorganization Act of 1974

Federal Legislation with Marginal or Extremely Minor Impacts:

Federal Water Power Act of 1920
National Ocean Pollution Research and Development and Planning Monitoring Act of 1978
Ocean Thermal Energy Conversion Act of 1980
Ocean Thermal Energy Research, Development, and Demonstration Act
Port and Tanker Safety Act
Water Bank Act of 1970

North Carolina Legislation with a Major Impact:

Air and Water Resources Act
Coastal Area Management Act
County Service Districts Act
Drinking Water Act
Environmental Policy Act of 1971
Industrial and Pollution Control Facilities Financing Act
Industrial and Pollution Control Facilities Financing Authority Act
Metropolitan Sewage District Act

Metropolitan Water Districts Act
Regional Sewage Disposal Planning Act of 1971
Regional Water Supply Planning Act of 1971
Soil Additives Act
Soil and Water Conservation Districts Act
Solid Waste Management Act of 1978
Special Assessments Act
Stream Sanitation Act
Watershed Improvement Districts Act

TOXICANTS

Federal Legislation with Major Impact:

Clean Air Act Amendments of 1967
Clean Air Act Amendments of 1970
Clean Air Act Amendments of 1977
Clean Water Act of 1977
Comprehensive Environmental Response, Compensation and Liability Act of 1980
Endangered Species Act of 1973
Environmental Pesticide Control Act of 1972
Federal Insecticide, Fungicide, and Rodenticide Act
Federal Environmental Pesticide Control Act of 1972
Federal Water Pollution Control Act Amendments of 1972
Housing and Community Development Act
Land and Water Conservation Fund Act
Marine Protection, Research, and Sanctuaries Act of 1972
Mineral Leasing Act of 1920
National Environmental Policy Act
Ports and Waterways Safety Act of 1972
Resource Conservation and Recovery Act of 1976
Rivers and Harbors Act of 1899
Rivers and Harbors Act of 1917
Safe Drinking Water Act of 1974
Surface Mining Control and Reclamation Act of 1977
Toxic Substances Control Act of 1976
Water Quality Improvement Act of 1970

Federal Legislation with Minor Impact:

Commercial Fisheries Research and Development Act of 1964
Energy Supply and Environmental Coordination Act of 1974

Federal Legislation with Marginal or Extremely Minor Impacts:

Deepwater Port Act of 1974
Hazardous Materials Transportation Act
National Ocean Pollution Research and Development and Planning Monitoring Act of 1978
Natural Gas Pipeline Safety Act of 1968
Natural Gas Policy Act of 1978
Occupational Safety and Health Act of 1970
Oil Pollution Act of 1961

Outer Continental Shelf Lands Act
Port and Tanker Safety Act
Public Health Services Act
Water Bank Act of 1970

North Carolina Legislation with a Major Impact:

Air and Water Resources Act
Boating Safety Act
Coastal Area Management Act
County Service Districts Act
Drinking Water Act
Environmental Policy Act of 1971
Fisherman's Economic Development Program
Industrial and Pollution Control Facilities Financing Act
Industrial and Pollution Control Facilities Financing Authority Act
Mining Act of 1971
Mosquito Control Districts
Municipal Service Districts Act of 1973
Oil Pollution and Hazardous Substances Control Act
Pesticide Law of 1971
Regional Sewage Disposal Planning Act of 1971
Regional Water Supply Planning Act of 1971
Soil Additives Act
Soil and Water Conservation Districts Act
Solid Waste Management Act of 1978
Special Assessments Act
Stream Sanitation Act
Structural Pest Control Act
Toxic Substances Act of 1979
Water Use Act of 1967
Watershed Improvement Districts Act
Well Construction Act

SEDIMENT FLUX

Federal Legislation with Major Impact:

Clean Water Act of 1977
Coastal Zone Management Act of 1972
Endangered Species Act of 1973
Federal Water Pollution Control Act Amendments of 1972
Forest and Rangeland Renewable Resource Planning Act
Housing and Community Development Act
Land and Water Conservation Fund Act
Marine Protection, Research, and Sanctuaries Act of 1972
Mineral Leasing Act of 1920
National Environmental Policy Act
Resource Conservation and Recovery Act of 1976
Soil Conservation Act
Solid Waste Disposal Act of 1965
Surface Mining Control and Reclamation Act of 1977
Watershed Protection and Flood Prevention Act

Federal Legislation with Minor Impact:

Commercial Fisheries Research and Development Act of 1964
Fish Restoration and Management Projects Act of 1950

Federal Legislation with Marginal or Extremely Minor Impacts:

Food and Agriculture Act of 1962
National Ocean Pollution Research and Development and Planning Monitoring Act of 1978
Water Bank Act of 1970

North Carolina Legislation with a Major Impact:

Agricultural Development Act
Air and Water Resources Act
Coastal Area Management Act
County Service Districts Act
Dredge and Fill Act
Environmental Compact Act
Environmental Policy Act of 1971
Forest Development Act
Mining Act of 1971
Municipal Service Districts Act of 1973
Sedimentation Pollution Control Act of 1973
Small Watershed Projects Act
Soil and Water Conservation Districts Act
Stream Sanitation Act
Water Use Act of 1967
Watershed Improvement Districts Act

COLIFORM BACTERIA

Federal Legislation with Major Impact:

Clean Water Act of 1977
Coastal Zone Management Act of 1972
Endangered Species Act of 1973
Federal Land Policy and Management Act of 1976
Federal Water Pollution Control Act Amendments of 1972
Forest and Rangeland Renewable Resource Planning Act
Housing and Community Development Act
Land and Water Conservation Fund Act
Migratory Bird Treat Act
Marine Protection, Research, and Sanctuaries Act of 1972
National Environmental Policy Act
Ports and Waterways Safety Act of 1972
Resource Conservation and Recovery Act of 1976
Rivers and Harbors Act of 1899
Rivers and Harbors Act of 1917
Safe Drinking Water Act of 1974
Soil Conservation Act
Solid Waste Disposal Act of 1965

Water Quality Improvement Act of 1970
Watershed Protection and Flood Prevention Act

Federal Legislation with Minor Impact:

Commercial Fisheries Research and Development Act of 1964
Fish Restoration and Management Projects Act of 1950

Federal Legislation with Marginal or Extremely Minor Impacts:

National Ocean Pollution Research and Development and Planning Monitoring Act of 1978
Occupational Safety and Health Act of 1970
Port and Tanker Safety Act
Public Health Services Act
Water Bank Act of 1970

North Carolina Legislation with a Major Impact:

Air and Water Resources Act
Boating Safety Act
Coastal Area Management Act
County Service Districts Act
Drinking Water Act
Environmental Compact Act
Environmental Policy Act of 1971
Fisherman's Economic Development Program
Industrial and Pollution Control Facilities Financing Act
Industrial and Pollution Control Facilities Financing Authority Act
Metropolitan Sewage District Act
Metropolitan Water Districts Act
Municipal Service Districts Act of 1973
Regional Sewage Disposal Planning Act of 1971
Regional Water Supply Planning Act of 1971
Soil and Water Conservation Districts Act
Solid Waste Management Act of 1978
Special Assessments Act
Stream Sanitation Act
Water Use Act of 1967
Watershed Improvement Districts Act
Well Construction Act

NUTRIENT FLUX

Federal Legislation with Major Impact:

Clean Water Act of 1977
Coastal Zone Management Act of 1972
Endangered Species Act of 1973
Federal Land Policy and Management Act of 1976
Federal Water Pollution Control Act Amendments of 1972
Forest and Rangeland Renewable Resource Planning Act
Housing and Community Development Act
Land and Water Conservation Fund Act

Marine Protection, Research, and Sanctuaries Act of 1972
Mineral Leasing Act of 1920
National Environmental Policy Act
Resource Conservation and Recovery Act of 1976
Safe Drinking Water Act of 1974
Soil Conservation Act
Solid Waste Disposal Act of 1965
Water Quality Improvement Act of 1970
Watershed Protection and Flood Prevention Act

Federal Legislation with Minor Impact:

Commercial Fisheries Research and Development Act of 1964
Fish Restoration and Management Projects Act of 1950

Federal Legislation with Marginal or Extremely Minor Impacts:

National Ocean Pollution Research and Development and Planning Monitoring Act of 1978
Water Bank Act of 1970

North Carolina Legislation with a Major Impact:

Agricultural Development Act
Air and Water Resources Act
Coastal Area Management Act
County Service Districts Act
Drinking Water Act
Environmental Compact Act
Environmental Policy Act of 1971
Industrial and Pollution Control Facilities Financing Act
Industrial and Pollution Control Facilities Financing Authority Act
Metropolitan Sewage District Act
Metropolitan Water Districts Act
Municipal Service Districts Act of 1973
Regional Sewage Disposal Planning Act of 1971
Regional Water Supply Planning Act of 1971
Soil Additives Act
Soil and Water Conservation Districts Act
Solid Waste Management Act of 1978
Special Assessments Act
Stream Sanitation Act
Water Use Act of 1967
Watershed Improvement Districts Act
Well Construction Act

FEDERAL LEGISLATION WITH VARIOUS IMPACTS (TITLES IN ALPHABETICAL ORDER)

PROGRAMS THAT AFFECT DEVELOPMENT
AROUND THE ALBEMARLE AND PAMLICO SOUND
December 14, 1986

Federal Legislation with a Major Impact
(in alphabetical order)

Anadromous Fish Conservation Act
Clean Air Act Amendment of 1967
Clean Air Act Amendments of 1970
Clean Air Act Amendments of 1977
Clean Water Act of 1977
Coastal Barrier Resources Act (1982)
Coastal Zone Management Act of 1972
Comprehensive Environmental Response, Compensation and Liability Act of 1980
Consolidated Farm and Rural Development Act of 1965
Department of Transportation Act of 1966 (bridges)
Disaster Relief Act of 1974
Endangered Species Act of 1973
Federal Insecticide, Fungicide, and Rodenticide Act
Federal Environmental Pesticide Control Act of 1972
Federal Land Policy and Management Act of 1976
Federal Water Pollution Control Act Amendments of 1972 (see CWA)
Fish and Wildlife Act of 1956
Fish and Wildlife Conservation Act of 1980
Fish and Wildlife Coordination Act of 1934
Fishery Conservation and Management Act of 1976
Forest and Rangeland Renewable Resource Planning Act
Highway Beautification Act of 1965
Historic Preservation Act of 1966
Housing and Community Development Act
Land and Water Conservation Fund Act
Marine Mammal Protection Act of 1972
Marine Protection, Research, and Sanctuaries Act of 1972
Migratory Bird Conservation Act
Migratory Bird Treaty Act (1918)
Mineral Leasing Act of 1920
National Environmental Policy Act (1969)
National Flood Insurance Act of 1968
National Forest Service Organic Act (1897)
Ports and Waterways Safety Act of 1972
Resource Conservation and Recovery Act of 1976
Rivers and Harbors Act of 1899
Rivers and Harbors Act of 1917
Rivers and Harbors Act of 1968
Rural Development Act of 1972
Safe Drinking Water Act of 1974
Small Business Act
Soil Conservation Act (1935)
Solid Waste Disposal Act
Surface Mining Control and Reclamation Act
Toxic Substances Control Act of 1976

Water Quality Improvement Act of 1970
Water Resources Planning Act of 1965
Watershed Protection and Flood Prevention Act (WPFPA)

Federal Legislation with a Minor Impact
(in alphabetical order)

Airport and Airway Development Act (1970)
Airport and Airway Improvement Act of 1982
Atomic Energy Act of 1954
Commercial Fisheries Research and Development Act of 1964
Energy Reorganization Act of 1974
Energy Supply and Environmental Coordination Act of 1974
Fish Restoration and Management Projects Act of 1950
Wild and Scenic Rivers System

Federal Legislation with Marginal or Extremely Minor Impacts
(in alphabetical order)

Agriculture and Consumer Protection Act
Deep Seabed Hard Mineral Resource Act of 1980
Deepwater Port Act of 1974 (as amended)
Federal Water Power Act of 1920
Federal Power Act (1935)
Food and Agriculture Act of 1962 (RC&D)
Hazardous Materials Transportation Act
Interstate Land Sales Full Disclosure Act of 1969
National Ocean Pollution Research and Development and Planning Monitoring Act of 1978
National Wilderness Act of 1964
Natural Gas Act of 1938
Natural Gas Pipeline Safety Act of 1968
Natural Gas Policy Act of 1978
Noise Control Act of 1972
Occupational Safety and Health Act of 1970
Ocean Thermal Energy Conversion Act of 1980
Ocean Thermal Energy Research, Development, and Demonstration Act
Oil Pollution Act of 1961
Outer Continental Shelf Lands Act (1953)
Port and Tanker Act of 1978
Public Health Services Act
Shipping Act of 1916
Submerged Lands Act (1953)
Urban Mass Transportation Act (1964)
Water Bank Act of 1970

FEDERAL LEGISLATION WITH VARIOUS IMPACTS (SUMMARIES IN ALPHABETICAL ORDER)

BRIEF DESCRIPTIONS OF PROGRAMS
THAT AFFECT DEVELOPMENT AROUND THE ALBEMARLE AND PAMLICO SOUND
And Environmental Problems Addressed By This Legislation
December 14, 1986

Environmental Manifestations Considered:
- Aquatic Habitat Modification
- Freshwater Drainage
- Oxygen-Demanding Substances
- Toxicants
- Sediment Flux
- Coliform Bacteria
- Nutrient Flux
- General Land Use Alteration

FEDERAL LEGISLATION WITH A MAJOR IMPACT
(in alphabetical order)

ANADROMOUS FISH CONSERVATION ACT
-- US Fish and Wildlife Service -- Signed by the president October 30, 1965. Authorizes the secretaries of commerce and the interior to enter into agreements with the states and other interests for conservation, development and enhancement of anadromous fish.
++ Conduct biological surveys to conserve, develop and enhance anadromous fish.
++ Dept. of Commerce and Interior, with states, conserve, develop, and enhance anadromous fishery resources.
>> This Act authorizes the secretary of the Interior to enter cooperative agreements with states or other non-federal interests for conserving, developing, and enhancing the anadromous fishery resources of the National that are subject to depletion from water resources development and other causes -- also authorizes the secretary to construct, install, maintain, and operate devices and structures for the improvement of feeding and spawning conditions, for the protection of fishery resources, and for facilitating free migration of fish -- also authorizes undertaking studies and making recommendations regarding the development and management of any stream or other body of water for the conservation and enhancement of anadromous fishery resources provided that the reports are transmitted to federal water resources construction agencies for their information
·AQUATIC HABITAT MODIFICATION

CLEAN AIR ACT AMENDMENT OF 1967
-- Federal Energy Regulatory Commission -- Signed by the president November 21, 1967, it enlarged federal responsibility for air pollution control to the extent that the federal government could step in when

the states failed to act, in most cases.
TOXICANTS

CLEAN AIR ACT AMENDMENTS OF 1970
-- Environmental Protection Agency -- Signed by the president December 31, 1970. Set initial deadlines for auto emission standards and gave the EPA administrator power to establish the standards. Gave citizens and public interest groups the right to bring suit against alleged polluters, including federal agencies.
>> This Act acknowledges that the primary responsibility for regulation and control of air pollution remains with the states yet expands federal involvement -- amendments inaugurated a system of cooperative federalism whereby Congress does not totally preempt state involvement in handling air pollution problems -- federal preemption does exist in certain areas such as aircraft emissions but generally state governments are given a substantial role in implementation and enforcement of the federal standards
TOXICANTS

CLEAN AIR ACT AMENDMENTS OF 1977
-- Environmental Protection Agency -- Signed by the president August 7, 1977. Delayed auto emission deadline for an additional two years and tightened emission standards for 1980 and 1981 model year automobiles. Set new standards to protect areas with clean air from a deterioration of air quality. Extended air quality standards for most cities and industries.
** EPA establishes national ambient air quality standards for specific air pollutants; monitors state implementation plans for air quality; establishes standards for new or modified stationary sources of air pollution; establishes limits on hazardous air pollutants such as asbestos, mercury and vinyl chloride; and establishes controls on motor vehicle emissions.
** EPA administers a prevention of significant deterioration program
** approval of construction permits by EPA in building new plants in a clean air area -- requires best possible equipment to control every emission source at plant
-- Gave EPA and NRC authority to set air quality standards for radioactive substances and emissions.
>> These Amendments addressed each of the prior problem areas under the 1970 Amendments and added several new programs. These included provisions for nonattainment programs, PSD programs, visibility standards, and ozone protection.
TOXICANTS

CLEAN WATER ACT OF 1977
-- Environmental Protection Agency -- Signed by the president December 27, 1977. Created "best conventional technology" standard for water quality by 1984; continued grants to states; raised liability limit on oil spill cleanup costs.
** purpose is to restore and maintain the chemical, physical and biological quality of the nation's waters -- "it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985." -- "water quality which provides for the protection and

propagation of fish, shellfish, and wildlife and provides for recreation in and on the water."

** each state must set water quality standards for every major body of surface water within its borders -- states must specify the uses of each body of water and determine the maximum levels of pollution that still would permit those uses

** nationwide standards established by EPA for each type of industry and for every pollutant based on the availability and economic feasibility of technology -- industries nmust obtain wastewater discharge permits

-- US Coast Guard -- Raised liability limit on oil spill cleanup costs. Superseded the Federal Water Pollution Control Act Amendments of 1972.

++ Assess injury, destruction or loss of natural resources in the coastal and marine environment caused by discharge of oil from vessels or onshore or offshore facilities.

++ Comment to Corps of Engineers on fish and habitat impacts of Corps dredge and fill permits.

SEDIMENT FLUX
NUTRIENT FLUX
COLIFORM BACTERIA
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS

COASTAL BARRIER RESOURCES ACT (1982)

++ This Act was enacted in an attempt to reduce federal subsidies to develop in highly hazardous and vulnerable barrier island areas. The act created a Barrier Island Resources System which designated 186 "undeveloped" segments of barrier islands from Maine to Texas. Federal expenditures to facilitiate private development in these designated areas is prohibited.

AQUATIC HABITAT MODIFICATION

COASTAL ZONE MANAGEMENT ACT OF 1972

-- National Oceanic and Atmospheric Administration -- Signed by the president October 27, 1972. Authorizes the secretary of commerce to make grants and contracts with any coastal state for developing and implementing a management program for the coastal zone and for acquiring and operating estuarine sanctuaries. Later amendments deal with impacts resulting from coastal energy activities.

++ Enter into grants with coastal states to develop and implement a management program for the coastal zone.

++ Designate representative estuarine areas as national estuarine reserves in which education, research and interpretive activities are conducted.

++ Through natural field laboratories, provide estuarine research and public education programs.

>> Intent is to have proper planning so that development will occur in the proper places for it rather than on an ad hoc basis in coastal areas -- objectives are through planning, to minimize degradation of coastal regions and to preserve and restore existing areas -- objective is for the states to develop appropriate coastal zone managment programs which will assure reasonable, necessary growth while preser-

ving and protecting the coastal zone from premature and ill-advised destruction and degradation -- accomplished through financial grants to states to develop coastal zone management plans

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX
OXYGEN-DEMANDING SUBSTANCES

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF 1980 (CERCLA)

-- Environmental Protection Agency -- Signed by the president December 11, 1980. Created a $1.6 billion Hazardous Substance Response Trust Fund (Superfund) to clean up toxic contaminants spilled or dumped into the environment. Imposed liability for government cleanup costs and natural resource damages of up to $50 million on anyone releasing hazardous substances into the environment.

-- National Oceanic and Atmospheric Administration -- provides some funding to NOAA in response to hazardous substances released into the environment, for natural resource damage assessment and restoration.

++ Assess injury, destruction, or loss of natural resources in the coastal and marine environment caused by releases of hazardous substances from facilities.

++ Recover damages or seek funds from superfund for natural resources subject to NOAA trusteeship injured, destroyed, or lost by release of hazardous substances into the coastal and marine environment from a facility.

TOXICANTS

CONSOLIDATED FARM AND RURAL DEVELOPMENT ACT OF 1965

-- Small Business Administration -- Signed by the president April 20, 1973. Guarantees and sets interest rates for loans made as a result of natural disasters.

GENERAL LAND USE ALTERATION

DEPARTMENT OF TRANSPORTATION ACT OF 1966 (bridges)

-- National Transportation Safety Board -- Signed by the president October 15, 1966. Created the Department of Transportation and established the National Transportation Safety Board as part of the Department.

-- United States Coast Guard -- Transferred the Coast Guard to the Dept. of Transportation. Establishes lighting requirements, provides procedures for ships passing one another, estalishes anchorage grounds for safe navigation, requires alteration of bridges obstructing navigation, establishes regulations governing the operation of drawbridges, sets reasonable rates for tolls and requires approval of plans and locations for the construction of bridges.

AQUATIC HABITAT MODIFICATION

DISASTER RELIEF ACT OF 1974

-- Small Business Administration -- Signed by the president December 31, 1970. Revises and expands federal relief programs that deal with

victims of natural disasters.

++ This Act authorizes a wide range of financial assistance and direct assistance to state and local governments and to private parties. The Act sets forth the procedures by which federal aid is distributed. FEMA has primary responsibility for coordinating and providing disaster-related assistance and FEMA regulations govern the determination of federal responsibility, damage assessment, applications for assistance, the granting of assistance, and post-disaster hazard mitigation planning.

AQUATIC HABITAT MODIFICATION

ENDANGERED SPECIES ACT OF 1973

-- National Oceanic and Atmospheric Administration -- Signed by the president December 28, 1973. Provides for the conservation of endangered species of fish, wildlife and plants by identifying these species and implementing plans for their survival.

-- US Fish and Wildlife Service -- Provides for the conservation of threatened and endangered species of fish, wildlife and plants by federal action and the establishment of state programs.

++ Responsibility for the management, conservation and recovery of endangered, and threatened species.

++ This act prohibits any federal actions, including the issuance of permits, which may jeopardize any of the species listed on the federal list of threatened and endangered species. The Secretaries of Commerce and Interior must identify whether species are threatened or endangered, and must as well specify the "critical habitat" of these species.

>> This Act was designed to address the problem of impacts of urbanization, industrial growth, and commercial development on endangered species of plants, fish, and animals -- designed to protect certain species from extinction of their habitats from destruction -- imposes planning responsibilities on federal agencies and their licensees or permittees for activities undertaken, and prohibited any commercial trade or activity in endangered species, alive or dead, or in their parts

AQUATIC HABITAT MODIFICATION
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
SEDIMENT FLUX

FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

-- Environmental Protectin Agency -- Originally passed Congress in 1947. The bill was subsequently strengthened and amended in 1972, 1975, and 1978. The pesticide control program has three major components -- registration of pesticides, training of pesticide Applicators and monitoring and research.

TOXICANTS

FEDERAL ENVIRONMENTAL PESTICIDE CONTROL ACT OF 1972

-- Allows the EPA to revoke permits of pesticide applicators if they are

in violation of the law -- also gives the EPA power to issue a "stop sale, use and removal" order when a pesticide is in violation of the law -- in addition, registration of pesticides may be canceled and pesticides may be seized
-- Signed by the president October 1, 1972. Required the registration of pesticides and gave the EPA authority to ban the use of pesticides found to be hazardous
-- Environmental Protection Agency -- Signed by the president October 1, 1972. Required the registration of pesticides and gave the EPA authority to ban the use of pesticides found to be hazardous.

TOXICANTS

FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976

-- Forest Service -- Signed by the president October 21, 1967. Provides for the use of national forests and grasslands for grazing; authorizes the secretary of agriculture to issue grazing permits; and authorizes issuances of rights of ways.
-- Bureau of Land Management -- Restates the policy of the US to retain and manage federal land for its protection, preservation and use by the public. Directs land use planning, governs grants and use of right of way over public land, directs review of lands for possible wilderness designation, amends the Taylor Grazing Act with respect to livestock management.

AQUATIC HABITAT MODIFICATION
COLIFORM BACTERIA
NUTRIENT FLUX

FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972 (see CWA)

-- Environmental Protection Agency -- Vetoed by the president October 17, 1972; veto overridden October 18, 1972. Set up a program of grants to states for construction of sewage treatment plants. Established stiff industrial and municipal pollutant discharge permit programs.
-- Army Corp of Engineers -- Empowered the Army Corps to issue permits for the disposal of dredged or fill material at specified sites.
-- US Coast Guard -- Authorizes inspections of vessels carrying oil or other hazardous materials; requires clean up of spills in navigable waters of oil or other hazardous materials; establishes standards of performance for marine sanitation devices.
++ Assess injury, destruction, or loss of natural resources in the Coastal and marine environment caused by discharge of oil from vessels or onshore or offshore facilities.
>> Amendments provide substantial federal funding for the construction and operation of publicly owned treatment facilities, establishes effluent limitations to regulate discharges from point source, authorized regulation of nonpoint sources, and established the dredge and fill permit program of the Corps of Engineers and the National Pollutant Discharge Elimination System -- established goal of achieving no discharge of pollutants by 1985 -- requires technology-based and water quality standards be designed to reduce and eventually eliminate the discharge of pollutants into the nation's waters

AQUATIC HABITAT MODIFICATION
SEDIMENT FLUX

OXYGEN-DEMANDING SUBSTANCES
COLIFORM BACTERIA
TOXICANTS
NUTRIENT FLUX

FISH AND WILDLIFE ACT OF 1956
-- US Fish and Wildlife Service -- Signed by the president August 8, 1956. Establishes a comprehensive national fish and wildlife policy; directs a program of continuing research, extension and information services on fish and wildlife.
++ Conduct investigations on: the production of fish and fish by-products; fishery statistics; availability and biological requirements of fish and wildlife resources (commercial and sport).
++ The U.S. Fish and Wildlife Service manages a system of national wildlife refuges, created under this act. Many of the refuge areas are located in coastal areas.
AQUATIC HABITAT MODIFICATION

FISH AND WILDLIFE CONSERVATION ACT OF 1980
-- US Fish and Wildlife Service -- Signed by the president September 29, 1980. Provides federal aid to the states for the management and restoration of non-game species.
AQUATIC HABITAT MODIFICATION

FISH AND WILDLIFE COORDINATION ACT OF 1934
-- US Fish and Wildlife Service -- Signed by the president March 10, 1934. Authorizes the secretary of the interior to assist federal, state, and other agencies in development, protection, rearing and stocking fish and wildlife on federal lands, and to study effects of pollution on fish and wildlife.
++ Interagency consultation to give fish and wildlife resources equal consideration with other project purposes.
AQUATIC HABITAT MODIFICATION

FISHERY CONSERVATION AND MANAGEMENT ACT OF 1976
-- National Oceanic and Atmospheric Administration -- Signed by the president April 13, 1976. Extends the U.S. exclusive fishery zone to 200 from 12 nautical miles and sets limits on foreign vessels fishing within these waters. This act has been amended numerous times.
-- U.S. Coast Guard -- Authorizes the enforcement and regulation of fishery conservation management zones.
++ Assess present and future conditions of fishery stocks.
++ National standards: conservation measures based on best scientific information.
++ Exclusive management authority for fish within the EEZ and anadromous species throughout migratory range.
++ Administered under the Secretary of Commerce, the Fishery Conservation and Management Act is the primary legal framework through which marine fishery resources in the US are managed. It created a fishery jurisdiction extending from 3 to 200 nautical miles off the U.S. coastline. The act establishes a set of national standards for fishery conservation and management to be applied within this zone.
AQUATIC HABITAT MODIFICATION

FOREST AND RANGELAND RENEWABLE RESOURCE PLANNING ACT

-- Forest Service -- Signed by the president August 17, 1974. A planning and budgetary procedure act that requires the Forest Service to prepare long-term programs for the National Forest System.

-- Amended by the National Forest Management Act of 1976 -- provides for a coordinated land management planning process that requires full public participation in the development and revision of land management plans for each national forest or grassland. The act provides comprehensive new authority for managing, harvesting, and selling national forest timber; and provides direction for bidding on national forest timber, road building associated with timber harvesting, reforestation, salvage sales and the handling of receipts from timber sales activites.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

HIGHWAY BEAUTIFICATION ACT OF 1965

++ This Act has provisions that require states to provide effective control of off-premise billboards and junkyards under the threat of losing 10 percent of their federal-aid highway funds. States are required to develop a regulatory program, and to enact appropriate legislation, which prohibits junkyards and off-premise billboards in areas which have not already experienced commercial or industrial development.

>> This Act authorized a new program to beautify the nation's Federal-aid highways through removal of junkyards and landscaping of areas adjacent to the highways. The program was to be financed through the Treasury rather than the Highway Trust Fund. Although no funds were authorized in the 1967-68 period the bill established maintenance or restoration of natural beauty as a national goal.

GENERAL LAND USE ALTERATION

HISTORIC PRESERVATION ACT of 1966

++ This act establishes a strong federal policy to protect historic and cultural resources and creates a financial assistance program and a mechanism for protecting designated cultural and historic resources. The law requires federal agencies to consider the impacts of their expenditures and licensing actions on any district, site, building, structure or object included in the National Register of Historic Places.

>> This Act establishes a congressional policy to accelerate federal and encourage state and private efforts toward historic preservation -- reaffirmed the importance of the historic past as a national value -- also confirmed the threatened loss of destruction of historic sites and information because of urbanization, commercial and industrial growth, highways, and residential development -- act inteded to provide means to facilitate and aid both public and private work in the area of historic preservation -- creates a "national register of districts, sites, buildings, structures and objects" to be kep by the

Secretary of the Interior
GENERAL LAND USE ALTERATION

HOUSING AND COMMUNITY DEVELOPMENT ACT
-- Office of Housing -- Signed by the president August 22, 1974. Section 8 created the Housing Assistance Payments Program, which provides housing assistance payments to participating private owners and public housing agencies to provide decent housing for low-income families at affordable costs.
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

LAND AND WATER CONSERVATION FUND ACT (1964)
++ The federal government acquires and maintains public ownership of lands through a number of programs, including the national park system and the national forests. Federal acquisition of shorelines areas increased substantially in 1962 with the creation of the Land and Water Conservation Fund within the Dept. of the Interior. Acquired areas are managed by the U.S. Parks Service.
>> This Act established a special Federal fund to help finance accelerated acquisition of outdoor recreation areas by Federal and state agencies. The fund was to receive revenue from four Federal sources: 1) admission, entrance, and recreation user fees which the Land and Water Conservation Fund authorized to be imposed by the President at existing facilities operated by a number of Federal agencies; 2) net proceeds from the sale of certain Federal surplus real property; 3) proceeds from the existing 2 percent net tax on motorboat fuels, which had previously gone into the Highway Trust Fund; 4) appropriations averaging no more than $60 million a year.
AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

MARINE MAMMAL PROTECTION ACT OF 1972
-- National Oceanic and Atmospheric Administration -- Signed by the president October 21, 1972. Establishes a moratorium on the taking of marine mammals and a ban on the importation of marine mammals and marine mammal products with certain exceptions.
-- US Fish and Wildlife Service -- Establishes a federal responsibility for conservation of marine mammals and vests in the Dept. of the Interior responsibility for management of certain animals.
AQUATIC HABITAT MODIFICATION

MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT OF 1972
-- Environmental Protection Agency -- Signed by the president October 23, 1972. Outlawed dumping of waste in oceans without an EPA permit

and required the EPA to designate sites to be used by permit holders.
-- National Oceanic and Atmospheric Administration -- Signed by the president October 23, 1972. Establishes a system for regulating the dumping of materials into ocean waters and for the transportation of these materials. Authorizes research into ocean dumping, including the long-range effects of pollution, overfishing and man-induced changes of ocean ecosystems.
-- Army Corps of Engineers -- Authorized the corps to issue permits for transportation of dredged material to be dumped in ocean waters.
++ Develop comprehensive research program: long-range effect of pollution, overfishing and man-induced changes of ocean ecosystems; cooperate with EPA in assessing feasibility of regional management plans for coastal disposal of waste -- also assess the capacity of the marine environment to receive materials without degradation; monitor programs and assess the health of the marine environment, including contaminant levels in biota, sediments, fish and shellfish.
AQUATIC HABITAT MODIFICATION
TOXICANT
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES

MIGRATORY BIRD CONSERVATION ACT
-- US Fish and Wildlife Service -- Signed by the president February 28, 1929. Implements treaties between the US and other counties for the protection of migratory birds.
AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE

MIGRATORY BIRD TREATY ACT (1918)
-- US Fish and Wildlife Service -- Signed by the president July 3, 1918. Implements the 1916 Convention between the US and Great Britain (for Canada) for the protection of migratory birds, thereby establishing a federal responsibility for protection of this natural resource.
AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE

MINERAL LEASING ACT OF 1920
-- Bureau of Land Management -- Signed by the president February 25, 1920. Permits the leasing of public lands for the exploration and development of specified minerals, chiefly oil, gas and coal.
-- Minerals Management Service -- Gives the secretary of Interior authority for leasing and managing coal, phosphate, oil, gas, potash, oil shale, sodium, sulphur, and gelsonite on public lands.
AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
NUTRIENT FLUX

NATIONAL ENVIRONMENTAL POLICY ACT (1969)

-- Environmental Protection Agency -- Signed by the president January 1, 1970. Established the Council on Environmental Quality and required the development of a national policy on the environment. (The act was more of a statement of broad policy goals than a grant of authority, and its provisions are carried out by the CEQ rather than the EPA.) (Requires Environmental Impact Statements for major projects using federal funding.)

++ Prepare an environmental impact statement for major Federal actions which significantly affect the quality of the human environment.

>> In this Act the Congress departed from the traditional single-solution treatment of resource development problems and set the stage for full-scale action to restore and maintain the quality of the natural, as well as the manmade, environment. The prime significance of the Act centers in its expressed determination to move the Nation in a comprehensive manner toward the accommodation of the goals of economic development and preservation of a quality environment. By proclaiming the responsibility of the Federal government to promote the restoration and maintenance of the human environment, the Act provides a framework for the formulation of specific legislative measures to deal with a wide variety of future land and environmental problems.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMADNING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT

NATIONAL FLOOD INSURANCE ACT OF 1968

++ Establishes the National Flood Insurance Program to provide a system of national flood insurance for structures and property located in designated flood hazard areas. To be eligible for these flood insurance benefits, a locality must agree to impose certain land use and mitigation requirements upon new development locating in flood hazard areas. The program is administered by the Federal Insurance Administration within FEMA.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE

NATIONAL FOREST SERVICE ORGANIC ACT (1897)

-- Forest Service -- Organic Administration Act. Signed by the president June 4, 1897. Provides basic authority for protecting and managing national forest lands.

GENERAL LAND USE ALTERATION

PORTS AND WATERWAYS SAFETY ACT OF 1972

-- US Coast Guard -- Signed by the president Jyly 10, 1972. Establishes safety measures to prevent damage to vessels and structures on navigable waters.

++ This act, as amended by the Port and Tanker Act of 1978, directs the Secretary of Transportation to promulgate standards governing the de-

sign, maintenance and generation of bulk cargo vessels carrying oil and other dangerous liquids. These standards include periodic inspection requirements and requirements forcrew training. Intention of regulations is to reduce potential for environmental damage.
TOXICANTS
COLIFORM BACTERIA

RESOURCE CONSERVATION AND RECOVERY ACT OF 1976
-- Environmental Protection Agency -- Signed by the president October 21, 1976. Set safety standard regulations for handling and storage of hazardous wastes and required permits for the operation of hazardous waste treatment, storage and disposal facilities. Gave EPA the authority to make grants to states for hazardous waste treatment programs.
>> This act amended the Soild Waste Disposal Act and established an elaborate regulatory problem for waste disposal -- program provided both research and financial assistance to states in developing programs for disposal of hazardous and solid waste -- authorized cradle-to-grave management of hazardous waste and a new regulatory program for solid waste -- also encourages the conservation and resuse of solid waste materials, where practicable, or their use to provide energy
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX
SEDIMENT FLUX

RIVERS AND HARBORS ACT OF 1899
-- Army Corps of Engineers -- Signed by the president March 3, 1899. Authorized regulation of all construction work in the navigable waters of the United States.
AQUATIC HABITAT MODIFICATION
TOXICANTS
COLIFORM BACTERIA

RIVERS AND HARBORS ACT OF 1917
-- Army Corps of Engineers -- Signed by the president August 8, 1917. Authorized the secretary of the army to regulate navigable waters of the US as public necessity may require for the protection of life, property and operations of the US in channel improvement.
AQUATIC HABITAT MODIFICATION
TOXICANTS
COLIFORM BACTERIA

RIVERS AND HARBORS ACT OF 1968
++ Section 111 authorizes the Army CoE to undertake projects for the protection of beaches that are threatened by navigational improvements made by the Corps. It authorizes the CoE to "investigate, study, and construct projects for the prevention or mitigation of shore damage attributable to Federal navigational works."
AQUATIC HABITAT MODIFICATION

RURAL DEVELOPMENT ACT OF 1972

-- Farmers Home Administration -- Signed by the president August 30, 1972. Empowers FmHA to guarantee loans made by commercial lenders for farming, housing and rural business and industry in cities up to 50,000 population; authorizes loans for construction of community facilities, as well as youth loans and industrial site improvement grants.
GENERAL LAND USE ALTERATION

SAFE DRINKING WATER ACT OF 1974
-- Environmental Protection Agency -- Signed by the president December 16, 1974. Set standards for maximum allowable levels of certain chemicals and bacteriological pollutants in public drinking water systems.
>> This Act established a regulatory program to assure protection of the nation's public drinking water supplies -- program designed to establish standards for acceptable levels of contaminants in drinking water, to allow enforcement of those standards by the states, and to protect drinking water supplies from underground injections
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX

SMALL BUSINESS ACT
-- Small Business Administration -- Signed by the president July 30, 1953. Creates and organizes the Small Business Administration, declares the agency's policy and defines small business concerns.
GENERAL LAND USE ALTERATION

SOIL CONSERVATION ACT (1935)
-- Agricultural Stabilization and Conservation Service -- Soil Conservation and Domestic Allotment Act -- Signed by the president April 27, 1935. Outlines ASCS conservation responsibilities. Authorizes the secretary of agriculture to provide loans and payments to farmers and others to improve conservation efforts and prevent erosion.
FRESHWATER DRAINAGE
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

SOLID WASTE DISPOSAL ACT OF 1965
-- Environmental Protection Agency -- The beginning of federal support and encouragement to states to develop environmentally sound methods for solid waste disposal -- replaced by RCRA
OXYGEN-DEMANDING SUBSTANCES
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977
-- Establishes the Office of Surface Mining Reclamation and Enforcement -- primary mission of office to create a nationwide program that protects society and the environment from the adverse effects of coal mining and to assist states in implementing regulatory programs,

>> Designed to regulate surface mining activities and postmining reclamation operations -- also has provisions dealing with reclamation of abandoned mine sites -- Act identifies and addresses particular environmental quality problems, including irreparable land degradation, water pollution, destruction of historic or archaeological sites and other harmful impacts of improper land uses
TOXICANTS
SEDIMENT FLUX

TOXIC SUBSTANCES CONTROL ACT OF 1976
-- Environmental Protection Agency -- Signed by the president October 11, 1976. Banned manufacture and use of polychlorinated biphenyls (PCBs) and gave EPA power to require testing of chemical substances that present a risk of injury to health and the environment.
++ This act requires the EPA to develop a program for collecting information about the use and production of hazardous chemicals, and information concerning the health reactions and risks associated with these chemicals. It requires chemical manufacturers to notify EPA of proposed plans to produce new chemicals and EPA was given authority to require the testing of new chemicals by industries. The Act also gives EPA the authority to suspend the production on any chemical which it determines creates public or environmental risks which are too high.
>> This act is concerned with the manufacture and processing of toxic substances and regulation of them before use -- act is intended to regulate the distribution of toxic substances without prior testing and provide remedial measures to control or recall those substances after their manufacture and distribution if necessary -- the objective is to keep off the market those substances which are creating an unreasonable risk to the public health and the environment -- responsibility for developing adequate data concerning the health and environmental effects of chemical substances is placed on persons who manufacture and process them -- act applies to any substance, toxic or not, that creates an unreasonable risk of danger to health and the environment -- seeks to identify new chemical substances being developed which present an unreasonable risk to health and the environment or chemical substances which are being put to a new use that creates such a risk
TOXICANTS

WATER QUALITY IMPROVEMENT ACT OF 1970
-- Environmental Protection Agency -- Signed by the president April 3, 1970. Made oil companies partially liable (up to $14 million) for oil spills and outlawed flushing of raw sewage from boats. Increased restrictions on thermal pollution from nuclear power plants. Created the Office of Environmental Quality to serve as staff for the Council on Environmental Quality.
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX
OXYGEN-DEMANDING SUBSTANCES
AQUATIC HABITAT MODIFICATION

WATER RESOURCES PLANNING ACT OF 1965

>> Congress enacted this legislation to provide for federal and regional coordination of plans for water resources development. It established the Federal Water Resources Council; directed the Council to evaluate regional and river basin plans and to coordinate the administration of Federal water programs; authorized the President to establish regional Federal-State river basin commissions to prepare and keep up-to-date comprehensive water resource plans; and directed each commission to coordinate Federal, State, interstate, local and private water development plans for the basin; to prepare and keep up-to-date a comprehensive joint development plan to consider alternatives; and to establish priorities for the basic data for planning. All plans are to be submitted to the Water Resources Council.

GENERAL LAND USE ALTERATION

WATERSHED PROTECTION AND FLOOD PREVENTION ACT (WPFPA)

-- Farmers Home Administration -- Signed by the president August 4, 1954. Empowers the FmHA to make loans to state or local organizations to carry out watershed and flood prevention measures.

>> After a pilot program in 1953, Congress provided for a permanent small watershed program to be carried out by the Soil Conservation Service. The program providing for a coordinated, balanced development of soil and water resources in areas up to 250,000 acres/project.

FRESHWATER DRAINAGE
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

FEDERAL LEGISLATION WITH MINOR IMPACTS

FEDERAL LEGISLATION WITH A MINOR IMPACT
(in alphabetical order)

AIRPORT AND AIRWAYS DEVELOPMENT ACT (1970)
>> This Act stipulates that the Department of Transportation must take into account environmental values when considering the siting of future airports; the requirement was designed to avoid repetition of such controversies as that surrounding the plan to locate a large air facility near parklands in the southern Florida Everglades.
GENERAL LAND USE ALTERATION

AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982
-- Federal Aviation Administration -- Signed by the president September 3, 1982. Authorized the FAA to issue operating certificates to airports to assure safe operation; authorized a long-range program of planning and construction grants for expansion and improvement of the nation's airports and navigation facilities.
AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE

ATOMIC ENERGY ACT OF 1946
-- Nuclear Regulatory Commission -- As amended by the Atomic Energy Act of 1954 -- Signed by the president August 30, 1954. Established the Atomic Energy Commission, which was the forerunner of the NRC, and set out the basic authority for the regulation of nuclear energy.
GENERAL LAND USE ALTERATION

COMMERCIAL FISHERIES RESEARCH AND DEVELOPMENT ACT OF 1964
++ This statute authorizes the Secretary of Commerce to cooperate with the states in conducting fisheries research and resource development projects.
AQUATIC HABITAT MODIFICATION
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

ENERGY REORGANIZATION ACT OF 1974
-- Nuclear Regulatory Commission -- Signed by the president October 11, 1974. Abolished the Atomic Energy Commission, transferring its powers to the NRC and ERDA (now Department of Energy).
OXYGEN-DEMANDING SUBSTANCES

ENERGY SUPPLY AND ENVIRONMENTAL COORDINATION ACT OF 1974
-- Environmental Protection Agency -- Signed by the president June 22, 1974. The legislation directed the Federal Energy Administration to prohibit the use of oil or natural gas in electric power plants that were able to burn coal and allowed the FEA administrator to prohibit the use of oil or gas in other facilities if they could use coal. The act also authorized the FEA administrator to allocate coal to any facility that had been prohibited from burning gas or oil; directed

the FEA administrator to gather and make public any information necessary to develop energy policy and gave the FEA subpoena powers to compel companies to turn over the necessary information.

AQUATIC HABITAT MODIFICATION
TOXICANTS

FISH RESTORATION AND MANAGEMENT PROJECTS ACT OF 1950

-- US Fish and Wildlife Service -- Signed by the president August 98, 1950. Provides federal aid to the state for management and restoration of sport fish.

AQUATIC HABITAT MODIFICATION
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

WILD AND SCENIC RIVERS SYSTEM (1968)

>> Congress completed action on a bill establishing a National Wild and Scenic Rivers System to preserve outstanding stretches of rivers from incompatible water resources development, pollution, or commercialization. The bill established three classifications in the system: wild river areas, essentially primitive and accessible only by trail; scenic river areas, largely primitive but accessible by road; and recreational river areas, having some development and readily accessible by car. Eight rivers were placed in the system.

GENERAL LAND USE ALTERATION

FEDERAL LEGISLATION WITH MARGINAL/MINOR IMPACTS

FEDERAL LEGISLATION WITH MARGINAL OR EXTREMELY MINOR IMPACTS
(in alphabetical order)

AGRICULTURE AND CONSUMER PROTECTION ACT
-- Foreign Agricultural Service -- Signed by the president August 10, 1973. Authorizes the FAS to monitor the export sales contracts of certain designated commodities.
GENERAL LAND USE ALTERATION

DEEP SEABED HARD MINERAL RESOURCE ACT OF 1980
-- National Oceanic and Atmospheric Administration -- Signed by the president June 28, 1980. Establishes a framework for the development and deployment of deep seabed mining technology and authorizes NOAA to issue licenses for exploration and permits for commercial recovery.
AQUATIC HABITAT MODIFICATION

DEEPWATER PORT ACT OF 1974 (as amended)
-- Research and Special Programs Administration -- Signed by the president January 3, 1975 . Establishes a licensing and regulatory program governing offshore deep-water ports development.
-- US Coast Guard -- Requires licensing and regulation of deep-water port facilities.
AQUATIC HABITAT MODIFICATION
TOXICANTS

FEDERAL WATER POWER ACT OF 1920
-- Federal Energy Regulatory Commission -- Signed by the president on June 20, 1920, it established the Federal Power Commission (FPC), which then consisted of the Secretaries of War, Interior and Agriculture. The FPC was empowered to grant preliminary licenses, to study potential sites and to issue licenses for the development of hydroelectric power plants on the nation's waterways. The act became Part I of the Federal Power Act in 1935.
AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES

FEDERAL POWER ACT (1935)
-- Federal Energy Regulatory Commission -- Signed by the president on August 26, 1935, it incorporated the FWPA and added two new parts. Part II gave the commission responsibility for regulating the interstate transmission and wholesale sale of electric energy, and it empowered the FPA to encourage voluntary interconnection and coordination of facilities for the generation, transmission and sale of electric energy. Part III gave the commission authority to prescribe a uniform system of accounts and to inspect the books and records of licensees and public utilities.
++ Prescribe fishways during the construction of dams or diversions.
AQUATIC HABITAT MODIFICATION

FRESHWATER DRAINAGE

FOOD AND AGRICULTURE ACT OF 1962

>> Important authorities for land-conversion efforts directed toward shifting rural land out of marginal crop production or other low-return uses were included in this act. The Act authorized several programs under which the Agriculture Department would aid farmers, farm associations and local government units to develop land use plans and to put them into practice. Such plans were to involve the application of conservation and water-development practices, shifting cropland to forests, recreational uses, and industrial and commercial uses in an effort to boost rural prosperity.

FRESHWATER DRAINAGE
SEDIMENT FLUX

HAZARDOUS MATERIALS TRANSPORTATION ACT

-- Research and Special Programs Administration -- Signed by the president January 3, 1975. Strengthens the laws governing the transportation of hazardous materials.

TOXICANTS

INTERSTATE LAND SALES FULL DISCLOSURE ACT OF 1969

-- Office of Housing -- act prohibits developers and their agents from selling or leasing any lot in a subdivision of 100 or more non-exempt lots without submitting complete information about the land to the purchaser and to HUD -- subdivision of 25 or more lots are subject to antifraud provisions of the Act -- willful violation may result in criminal penalties of imprisonment for not more than five years or a fine of not more than $10,000 or both.

-- Signed by the president in 1968. Title XIV of the Housing and Urban Development Act of 1968. Establishes regulations relating to the sale or lease of subdivision lots. Requires that sellers make available certain information about the land involved and that purchasers be furnished with a property report approved by HUD.

FRESHWATER DRAINAGE

NATIONAL OCEAN POLLUTION RESEARCH AND DEVELOPMENT AND PLANNING MONITORING ACT OF 1978

++ Monitor research efforts of other Federal agencies and use of such research in determinations that affect the environmental quality of the Great Lakes, Chesapeake Bay, Puget Sound and other estuaries of national signficance.

++ Develop program for coordinated pollution research, development, and monitoring. Coordinate research to support preservation and protection of estuaries of national signficance.

AQUATIC HABITAT MODIFCATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

NATIONAL WILDERNESS ACT OF 1964

++ This Act created the National Wilderness Preservation System, and designated 54 national forest areas as it original components. The program has since been substantially expanded. Wilderness areas are defined in the act to include undeveloped federal land meeting specific criteria. The lands are managed by the National Forest Service.

>> This Act designated as part of a national wilderness preservation system approximately 9.1 million acres of national forest lands which, by administrative action, had previously been classified as "wild", "wilderness" or "canoe" area and directed the Secretaries of Agriculture and the Interior to study areas of the national forest system classified as "primitive" and the various wild areas of the national park system and national wildlife refuges and game ranges to determine which of those areas were suitable for addition to the National Wilderness Preservation System. Addition of such areas to the National Wilderness Preservation System would be permitted only through an act of Congress.

GENERAL LAND USE ALTERATION

NATURAL GAS ACT OF 1938

-- Federal Energy Regulatory Commission and Economic Regulatory Administration -- Signed by the president on June 21, 1938, this law gave the FPC jurisdiction over the interstate transportation of natural gas, the wholesale price of natural gas in interstate commerce and the accounting systems used by natural gas companies.

-- Authorized ERA to regulate natural gas imports and exports and to establish priorities during curtailments of natural gas service.

GENERAL LAND USE ALTERATION

NATURAL GAS PIPELINE SAFETY ACT OF 1968

-- Research and Special Programs Administration -- Signed by the president August 12, 1968. Authorizes the secretary of transportation to prescribe safety standards for the transportation of natural and other gas by pipeline.

TOXICANTS

NATURAL GAS POLICY ACT OF 1978

-- Federal Energy Regulatory Commission -- Signed by the president November 9, 1978, it was one of five parts of the National Energy Act. The act deregulated the price of natural gas over a five-year period, established a program of incentive prices for newly discovered gas and required the development of an incremental pricing plan to transfer the burden of higher gas prices to the largest users of natural gas.

AQUATIC HABITAT MODIFICATION
TOXICANTS

NOISE CONTROL ACT OF 1972

-- Environmental Protection Agency -- Signed by the president October 27, 1972. Gave the EPA authority to set national noise standards for commercial products. Required the EPA to assist the Federal Aviation Administration in developing noise regulations for airports and aircraft.

>> This Act recognizes excessive noise as a threat to human health and welfare -- the legislation establishes a regulatory program within EPA to deal with this problem -- the Act includes provisions for research into effects of noise pollution, identification of major sources of noise pollution, standards to control noise pollution, and labeling of consumer products which either cause or reduce noise pollution -- requires federal agencies to use all efforts to achieve an environment free from any noise that is dangerous to the public health or welfare

GENERAL LAND USE ALTERATION

OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

-- Occupational Safety and Health Administration -- In addition to creating OSHA, the act set up the Occupational Safety and Health Review Commission and the National Institute for Occupational Safety and Health. The legislation gives OSHA the power to promulgate and enforce worker safety and health standards, conduct inspections and investigations, require employers to keep detailed records on worker injuries and illnesses and conduct research.

TOXICANTS
COLIFORM BACTERIA

OCEAN THERMAL ENERGY CONVERSION ACT OF 1980

-- National Oceanic and Atmospheric Administration -- Signed by the president August 3, 1980. Authorizes NOAA to issue licenses and regulations for research on the conversion to energy of differences in ocean temperatures. Research and development authority is with DOE.

-- Office of Conservation and Renewable Energy -- Provides funds for an accelerate research and development program by the Energy Dept. on ocean thermal energy conversion.

AQUATIC HABITAT MODIFICATION
OXYGEN-DEMANDING SUBSTANCES

OCEAN THERMAL ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACT

-- Office of Conservation and Renewable Energy -- Signed by the president August 17, 1980. Provides funds for an accelerated research and development program by the Energy Department on ocean thermal energy conversion.

AQUATIC HABITAT MODIFICATION
OXYGEN-DEMANDING SUBSTANCES

OIL POLLUTION ACT OF 1961

-- US Coast Guard -- Signed by the president August 30, 1961. Prohibits discharge of oil or oily mixtures into navigable waters.

TOXICANTS

OUTER CONTINENTAL SHELF LANDS ACT (1953)

-- Minerals Management Service -- Signed by the president August 7, 1953. Gives the secretary of interior authority for leasing and managing materials in the Outer Continental Shelf.

AQUATIC HABITAT MODIFICATION
TOXICANTS

PORT AND TANKER SAFETY ACT
-- US Coast Guard -- Signed by the president July 10, 1972. Provides for the port safety program, which includes the establishment of vessel traffic services, issuance of regulations to protect the environment, and authority to regulate various activities in the nation's ports. Also authorizes inspection and regulation of tank vessels.
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
COLIFORM BACTERIA

PUBLIC HEALTH SERVICES ACT
-- Food and Drug Administration -- Signed by the president July 1, 1944. Gave the FDA authority to ensure safety, purity and potency of vaccines, blood, serum and other biological products. Also empowered the FDA to ensure safety of pasteurized milk and shellfish, as well as the sanitation of food services and sanitary facilities for travelers on buses, trains and planes.
AQUATIC HABITAT MODIFICATION
TOXICANTS
COLIFORM BACTERIA

SHIPPING ACT OF 1916
-- Federal Maritime Commission -- Signed by the president September 7, 1916. Requires that ocean common carriers file tariffs (rates) for approval by the FMC; establishes guidelines for maintaining competition among carriers, for the filing of tariffs, and for the reporting of agreements among common carriers. Gives FMC authority to grant to carriers immunity from antitrust prosecution.
GENERAL LAND USE ALTERATION

SUBMERGED LANDS ACT (1953)
-- Minerals Management Service -- Signed by the president May 22, 1953. Establishes and confirms rights and title of states to lands beneath navigable waters and the natural resources therein by extending the boundaries of coastal states seaward for three miles.
GENERAL LAND USE ALTERATION

URBAN MASS TRANSPORTATION ACT (1964)
-- Urban Mass Transportation Administration -- Signed by the president July 9, 1964. Authorizes the Housing and Home Finance Administration to provide additional assistance for the development of comprehensive and coordinated mass transportation systems.
>> This Act authorized the Administrator of the Housing and Home Finance Agency to make grants covering two-thirds of net cost of a project upon determining that assistance was needed to carry out a program for a unified or officially coordinated urban transportation system as part of comprehensively-planned development of an urban area.
>> Amendments were made in 1966 which authorized the use of grant funds for: planning and technical studies preparatory to construction and improved operation of mass transit systems and for grants to state and local public bodies to cover up to two-thirds of the cost of planning, engineering, designing and technical studies of urban mass

transportation systems to be included in coordinated programs for development of entire urban areas.

GENERAL LAND USE ALTERATION

WATER BANK ACT OF 1970

-- Agricultural Stabilization and Conservation Service -- Signed by the president December 19, 1970. Provides funds for the improvement and maintenance of wetlands and adjacent natural resource areas, the control of runoff, erosion and floods and the promotion of water management techniques.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

EXECUTIVE ORDERS:

Executive Order 11063: Fair Housing Opportunity
Executive Order 11288: Abate and Prevent Water Pollution from Federal Activities (1966)
Executive Order 11282: Abate and Control Air Pollution from Federal Activities (1966)
Executive Order 11507: Prevention, Control and Abatement of Air and Water Pollution of Federal Facilities (1970)
Executive Order 11574: Refuse Act Permit Program
Executive Order 11988: federal agencies must consider flood hazard reduction -- "Floodplain Executive Order"
Executive Order 11990: federal agencies must minimize the loss of wetlands "Wetlands Executive Order"
Executive Order 12044: Improving Government Relations
Executive Order 12114: EIS for major federal actions impacting global commons or foreign countries
Executive Order 12259: New Housing
Executive Order 12291: OMB authority to review and cost-benefit analyses
Executive Order 12498: Statement of regulatory policies, goals and objectives for all those in the regulatory process

-- preceding a description indicates that it was obtained from the FEDERAL REGULATORY DIRECTORY: 1985 (a reference text compiled by Congressional Quarterly, Inc.)

>> preceding a description indicates that it was obtained from the NATIONAL LAND USE POLICY LEGISLATION, 93RD CONGRESS report prepared by the Environmental Policy Division of the Congressional Research Service for the Senate Committee on Interior and Insular Affairs or from ENVIRONMENTAL PROTECTION: THE LEGAL FRAMEWORK by Frank F. Skillern (1981, McGraw-Hill, Inc.).

** preceding a description indicates that it was obtained from several different publications including:
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ESTUARINE LEGISLATIVE CROSSCUT (October 1986)
ENVIRONMENTAL LAW by William H. Rodgers, Jr. (West Publishing Co., 1977)
FEDERAL ENVIRONMENTAL LAW by The Environmental Law Institute (West Publishing Co, 1974)

NORTH CAROLINA LEGISLATION WITH VARIOUS IMPACTS (TITLES IN ALPHABETICAL ORDER)

PROGRAMS THAT AFFECT DEVELOPMENT
AROUND THE ALBEMARLE AND PAMLICO SOUND
December 14, 1986

Legislation in North Carolina with a Major Impact
(in alphabetical order)

Agricultural Development Act
Air and Water Resources Act
Boating Safety Act
Coastal Area Management Act of 1974
Conservation and Historic Preservation Agreements Act
County Service Districts Act
Dredge and Fill Act
Drinking Water Act
Emergency Management Act
Environmental Compact Act
Environmental Policy Act of 1971
Fisherman's Economic Development Program
Forest Development Act
Industrial and Pollution Control Facilities Federal Program Financing Act
Industrial and Pollution Control Facilities Financing Act
Metropolitan Sewerage District Act
Metropolitan Water Districts Act
Mining Act of 1971
Mosquito Control Districts
Municipal Service Districts Act
Municipal Subdivision Control Act
Municipal Zoning Act
Natural and Scenic River System Act
Nature and Historic Preserve Dedication Act
Oil Pollution and Hazardous Substances Control Act
Pesticide Law of 1971
Recreation Enabling Act
Regional Sewage Disposal Planning Act of 1971
Regional Water Supply Planning Act of 1971
Sedimentation Pollution Control Act of 1973
Small Watershed Projects Act
Soil Additives Act
Soil and Water Conservation Districts Act
Solid Waste Management Act of 1978
Special Assessments Act
Stream Sanitation Act
Structural Pest Control Act
Toxic Substances Act of 1979
Water Use Act of 1967
Watershed Improvement Districts Act
Watershed Improvement Programs Act
Well Construction Act (1967)
Wildlife Resources Law

North Carolina Legislation with a Minor Impact
(in alphabetical order)

Condominium Act
Outdoor Advertising Control Act
Park Commission Act
Tax Increment Financing Act
Trails System Act
Water Safety Act

North Carolina Legislation with Marginal or Extremely Minor Impacts
(in alphabetical order)

Advertising Control Act
Air and Water Quality Reporting Act
Airport Development Act
Alien Property Act
Annexation Act
Archives and History Act
Atlantic States Marine Fisheries Compact Act
Balanced Growth Policy Act
Bicycle and Bikeway Act of 1974
Building Contract Act
Carrier Act
Cemetery Act
City-County Consolidation Act
Condemnation Act
Connor Act (registration of conveyances)
Corporations Act
Dam Safety Law of 1967
Energy Policy Act
Engineering and Land Surveying Law
Fiscal Information Act for Local Government
Fraudulent Conveyance Act
Gas Conservation Act
Highway Safety Act
Horizontal Property Act
Housing Authorities Law
Housing Corporation Act
Housing Finance Agency Act
Inheritance Tax Act
Land Contracts Registration Act
Land Policy Act
Land Title Registration Act
Local Government Bond Act
Local Government Budget and Fiscal Control Act
Local Government Fiscal Information Act
Local Improvement Act
Mine Safety and Health Act
Mining Compact
Municipal Corporations Act
Municipal Finance Act
Municipal Fiscal Control Act

Occupational Safety and Health Act of North Carolina
Oil and Gas Conservation Act
Public Building Contracts Act
Public Transportation Authorities Act
Public Utilities Act
Public Utilities Commission Act
Public Works Act
Quarries and Mines Act
Real Estate License Law
Real Property Acquisitions Policies Act
Right of Way Act
Rural Electrification Act
Sales and Use Tax Act
Sinking Fund Act
Southeastern Interstate Forest Fire Protection Compact
Southeastern Interstate Low-level Radioactive Waste Management Compact
Southern Growth Policies Agreement Act
Southern State Energy Compact
Supplemental Local Goverment Sales and Use Tax Act
Transportation Authorities Act
Unmarked Human Burial and Human Skeletal Remains Protection Act
Use Tax Act

NORTH CAROLINA LEGISLATION WITH MAJOR IMPACTS (SUMMARIES IN ALPHABETICAL ORDER)

NORTH CAROLINA LEGISLATION WITH A MAJOR IMPACT
(in alphabetical order)

AGRICULTURAL DEVELOPMENT ACT (Sections 106-580 to 106-587)

++ This act declare as state policy ". . . to promote the efficient production and utilization of the products of the soil as essential to the health and welfare of our people and to promote a sound and properous agriculture and rural life as indispensable to the maintenance of maximum prosperity .. to develop methods of conservation, development, and use of land, forest, and water resources for agricultural purposes..." (one of many purposes)

FRESHWATER DRAINAGE
SEDIMENT FLUX
NUTRIENT FLUX

AIR AND WATER RESOURCES ACT (Sections 143-211 to 143-215.73)

++ 143-215.70 to 143-215.73 authorizes the NC Dept. of NRCD to provide state financial assistance for the protection of privately owned beaches where public access is allowed and provided for, in the amount of 75 percent of the non-federal portion of the project cost. Act was passed by the General Assembly in 1979. See Stream Sanitation Act for additional details.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

BOATING SAFETY ACT (Sections 75A-1 to 75A-26)

++ Wildlife Resources Commission -- This act declares it state policy to promote safety for persons and property in and connected with the use, operation, and equipment of vessels, and to promote uniformity of laws relating thereto. The Act requires identification numbers for every motorboat. The Act also specifies that individuals responsible for polluting and littering inland lake waters can be prosecuted for a misdemeanor.

TOXICANTS
COLIFORM BACTERIA

COASTAL AREA MANAGEMENT ACT OF 1974

-- Division of Coastal Management-NRCD -- This act establishes the Coastal Resources Commission which sets policies and standards for the North Carolina Coastal Management Program. The Division of Coastal Management issues permits for development in the four areas of environmental concern within the twenty coastal counties under the authority of the commission. The commission sets construction standards and guidelines to follow in determining whether or not a permit will be approved for development within the areas of envir-

onmental concern, including the estuarine system AEC.

Protection of water quality is one of the basic goals of the act and the commission's standards clearly state that development that would damage coastal waters will not be allowed. Although water quality can be managed to some extent through the permitting process, there are several activities that the coastal program does not have the authority to regulate, principally agriculture and forestry. Local governments, however, do have the authority to guide activities outside the designated areas of environmental concern -- land use planning and zoning are two of the primary methods for doing so.

-- This act constitutes the basis of coastal management and planning in North Carolina. It was enacted to provide for the orderly use and development of the coast's natural and economic resources. The principal elements of CAMA are local land use planning, regulation of development in Areas of Environmental Concer, and permit coordination in the state's 20 coastal counties.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

CONSERVATION AND HISTORIC PRESERVATION AGREEMENTS ACT (Section 121-34 to 121.42)

++ This act defines conservation and preservation agreements and delineates their acquisition and approval. The act states that these agreements are interests in land and may be acquired by any holder in the same manner as it may acquire other interests in land and defines the validity and enforceability of these agreements.

GENERAL LAND USE ALTERATION

COUNTY SERVICE DISTRICTS ACT (Section 153A-300 to 153A-309)

++ This act authorizes the board of commissioners of any county to define service districts in order to finance, provide, or maintain one or more of the following services, facilities and functions beyond the level provided to the entire county: beach erosion control and flood and hurricane protection works; fire protection; recreation; sewage collection and disposal systems; solid waste collection and disposal systems; water supply and distribution systems; ambulance and rescue; and watershed improvement projects.

FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

DREDGE AND FILL ACT

-- Division of Coastal Management-NRCD -- Under this law permits are issued for dredging and filling activities. Permit applications

will be denied if the proposed activity is found to have a significant adverse effect on the use of the waters by the public; the value and enjoyment of riparian property owners; the public's health, safety, and welfare; the quality of public or private water supplies; and wildlife, fresh water, estuarine or marine fisheries. The Coastal Resources Commission hears permit appeals.

++ Requires a permit from the Coastal Resources Commission for any dredge and fill activities in estuarine waters, tidelands, marshlands, or state-owned lakes.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
SEDIMENT FLUX

DRINKING WATER ACT (Section 130-166.39 to 130-166.56)

++ Dept. of Human Resources -- This Act is designed to regulate water systems within the State which supply drinking water to the public insofar as the water furnished may affect the public health. The regulations apply to most public water systems in the State and specify contaminants which may have an adverse effect on the public health, maximum concentration levels for these contaminants, and treatment techniques for each contaminant. In addition, this Act gives to the Commission for Health Services the authority to promulgate rules and regulations governing the sanitation of watersheds from which public drinking water supplies are obtained. The Article was designed to give the State the authority needed to assume primary enforcment responsibility under the federal Act.

OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX

EMERGENCY MANAGEMENT ACT (Section 166A-1 to 166A-16)

-- This Act sets forth the authority and responsibility of the Governor, State agencies, and local governments in prevention of, preparation for, response to and recovery from natural or man-made disasters or hostile military or paramilitary action. This includes reducing vulnerability of people and property, preparing for prompt and efficient rescue, providing for rapid and orderly rehabilitation, and providing for cooperation and coordination of activities. The Act specifies when and how a state of disaster may be implemented.

AQUATIC HABITAT MODIFICATION

ENVIRONMENTAL COMPACT ACT (Section 113A-21 to 113A-23)

++ This act recognizes the interests of the state in protecting the environment and is directed at improving environmental protection by acting in concert and cooperation with other states and with the federal government. The compact states as its purpose to, "assist and participate in the national environmental protection programs as set forth in federal legislation; to promote intergovernmental cooperation for multi-state action relating to environmental protection through interstate agreements; and to encourage cooperative and coordinated environmental protection by the signatories and the

federal government."

FRESHWATER DRAINAGE
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

ENVIRONMENTAL POLICY ACT OF 1971

-- Department of Administration -- The purpose of this law is to encourage the wise, productive, and beneficial use of the state's natural resources without damage to the environment. The act also encourages an educational program to create public awareness of environmental programs and requires state organizations to consider and report on environmental aspects and consequences of their actions involving expenditures of public money.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

FISHERMAN'S ECONOMIC DEVELOPMENT PROGRAM (Section 113-315.15 to 113.315.19)

++ This Act authorizes the Secretary of NRCD to provide through his department and through the University of North Carolina those services intended to promote the economic development of fishermen, including instituting business management services, providing counseling services, and improving waterways, harbors, inlets, and the general water transportation ystem of the state.

AQUATIC HABITAT MODIFICATION
TOXICANTS
COLIFORM BACTERIA

FOREST DEVELOPMENT ACT (Section 113A-176 to 113A-183)

++ This act directs the Secretary of DNRCD to implement a forest development program to provide financial assistance to increase the productivity of the privately owned forests of the State, to insure that forest operations protect the soil, air, and water resources, and to implement a program of voluntary landowner participation through the use of a forest development fund.

FRESHWATER DRAINAGE
SEDIMENT FLUX

INDUSTRIAL AND POLLUTION CONTROL FACILITIES FINANCING ACT (Section 159C-1 to 159D-28)

++ This act declares it state policy "to promote the right to gainful employment opportunity, private industry, the prevention and control of the pollution of the air, land and waters of the State, and the safety, morals and health of the people of the State, and thereby promote general welfare of the people of the State, by authorizing counties to create county authorities which shall be political subdivisions and bodies corporate and politic of the State. These bodies are to be formed (i) to aid in the financing of industrial

and manufacturing facilities for the purpose of alleviating unemployment of raising below average manufacturing wages by financing industrial and manufacturing facilities which provide job opportunities or pay better wages than those prevalent in the area and (ii) to aid in financing pollution control facilities for industry in connection with manufacturing and industrial facilities and for public utilities; provided, however, that it is the policy of the State to finance only those facilities where there is a direct or indirect favorable impact on employment or an improvement in the degree of prevention or control of pollution commensurate with the size and cost of the facilities." Authorizes the creation of County Industrial Facilities and Pollution Control Financing Authority's.

OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX

INDUSTRIAL AND POLLUTION CONTROL FACILITIES FINANCING AUTHORITY ACT (Section 159D-1 to 159D-27)

++ Same as above except for (ii) the following text is substituted, "to aid in financing pollution control facilities for industry in connection with manufacturing and industrial facilities, in each case in connection with federal programs to effect such purposes; provided, however, that it . . . " Basically authorizes a uniform statewide program which will allow North Carolina to obtain federal funding for these purposes.

OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX

METROPOLITAN SEWERAGE DISTRICT ACT (Section 162A-64 to 162A-80)

++ This act authorizes the creation of metropolitan sewerage districts by allow "any two or more political subdivisions in one or more counties, or any political subdivision or subdivisions and any unincorporated area or areas located within one or more counties, which political subdivisions or areas need not be contiguous, may petition for the creation of a metropolitan sewerage district . .. by filing with the board of boards of commissioners of the county or counties within which the proposed district will lie ... " -- Environmental Management Commission -- "Each district shall be deemed to be a public body and body politic and corporate exercising public and essential governmental functions to provide for the preservation and promotion of the public health and welfare . . . " -- the legislation goes on to specify the powers and authority of these districts -- prior to making final plans for the location and construction of any sewerage system, the district board is required to present preliminary plans to the county, municipal or regional planning board for their consideration if the facility is to be located within their planning jurisdiction -- district boards are directed to coordinate plans for these sewerage system improvements with the overall plans for the development of the planning area

OXYGEN-DEMANDING SUBSTANCES

COLIFORM BACTERIA
NUTRIENT FLUX

METROPOLITAN WATER DISTRICTS ACT (Sections 162A-31 to 162A-58)
++ This act authorizes the creation of metropolitan water district and explains the procedure which must be followed to create such a district (same language as above act) -- prior to making final plans for the location and construction of any water or sewerage system or both, the district board is required to present preliminary plans to the county, municipal or regional planning board for their consideration if the facility is to be located within their planning jurisdiction -- district boards are directed to coordinate plans for these sewerage system or water system improvements or both with the overall plans for the development of the planning area
OXYGEN-DEMANDING SUBSTANCES
COLIFORM BACTERIA
NUTRIENT FLUX

MINING ACT OF 1971
-- Division of Land Resources-NRCD -- This law requires the consideration of water quality in mining activities, and that a permit be obtained for such activities. Overall, mining must not adversely affect wildlife, fresh water, estuarine or marine fisheries, violate state standards for surface of groundwater quality, or result in substantial deposits of sediments in streambeds or lakes or cause acid water pollution. The state Mining Commission is established by this act and authorized to adopt rules and regulations.
AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
TOXICANTS
SEDIMENT FLUX

MOSQUITO CONTROL DISTRICTS (Sections 130-210 to 130-220, 130A-352 to 130A-358)
++ This statute creates Mosquito Control Districts for the purpose of preserving and promoting the public health and welfare by providing for the control of mosquitoes and other arthropods of public health significant. These districts may be comprised of one or more contiguous counties or contiguous parts of one or more counties -- Secretary of Human Resources -- The governing board of each district must submit for approval a plan of procedure and operation and no action may be taken until the Secretary has approved this plan
AQUATIC HABITAT MODIFICATION
TOXICANTS

MUNICIPAL SERVICE DISTRICTS ACT OF 1973 (Sections 160A-535 to 160A-544)
++ The purpose of the creation of municipal service districts is to "...finance, provide, or maintain for the districts one or more of the following services, facilities, or functions in addition to or to a greater extent than those financed, provided or maintained for the entire city: beach erosion control and flood and hurricane protection works; downtown revitalization projects; drainage project; off-street parking facilities; and water improvement projects;

drainage projects; and water resources development projects. "
FRESHWATER DRAINAGE
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

MUNICIPAL SUBDIVISION CONTROL ACT (Sections 160A-371 to 160A-376)
++ This act specifies that by ordinance a city may regulate the subdivision of land within its territorial jurisdiction. The statute describes a number of things which the subdivision control ordinance may include as well as specific provisions which must be includeD
GENERAL LAND USE ALTERATION

MUNICIPAL ZONING ACT (Sections 160A-381 to 160A-392)
++ This statute states that "For the purpose of promoting health, safety, morals, or the general welfare of the community, any city is hereby empowered to regulate and restrict the height, number of stories and size of building and other structures, the percentage of lots which may be occupied, the size of yards, courts and other open spaces, the density of population, and the location and use of building, structures and land for trade, industry, residence or other purposes." -- this is basically the state enabling legislation for zoning
GENERAL LAND USE ALTERATION

NATURAL AND SCENIC RIVER SYSTEM ACT OF 1971 (Sections 113A-30 to 113A-43)
++ This act states as policy "the necessity for a rational balance between the conduct of man and the preservation of the natural beauty along the many rivers of the State. This policy includes retaining the natural and scenic conditions in some of the State's valuable rivers by maintaining them in a free flowing state and to protect their water quality and adjacent lands by retaining these natural and scenic conditions -- this preservation constitutes a beneficial public purpose" -- the act institutes a North Carolina natural and scenic rivers system and prescribes methods for inclusion of components to the system from time to time -- NRCD
AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE

NATURE AND HISTORIC PRESERVE DEDICATION ACT (Sections 143.260.6 to 143.260.10A)
++ The purpose of this Act is to prescribe the conditions and procedures under which properties may be specially dedicated for the purposes of conserving natural resources as enumerated in the North Carolina Constitution. The dedication of property to the State Nature and Historic Preserve system does not prevent the administering State agency of local governing body from carrying out normal maintenance and improvement of existing structures or facilities that are appropriate.
GENERAL LAND USE ALTERATION

OIL POLLUTION AND HAZARDOUS SUBSTANCES CONTROL ACT

-- Division of Environmental Management-NRCD -- The purpose of this law is to protect the public's health, safety, and welfare by protecting land and water from pollution by oil, oil products, oil by-products, and other hazardous substances. This law authorizes the EMC to regulate oil discharges, oil terminal facilties, and oil refining facilities.

++ This Act authorizes the DNRCD to regulate refineries and oil terminal facilities.

AQUATIC HABITAT MODIFICATION
TOXICANTS

PESTICIDE LAW OF 1971

-- Food and Drug Protection Division-DOA -- This law authorizes the Dept. of Agriculture to appoint a Pesticide Board that can adopt rules and make policies for programs to regulate the use, application, sale, disposal, and registration of pesticides. Water quality is a consideration of disposal regulations.

TOXICANTS

RECREATION ENABLING ACT (Section 160A-350 to 160A-356)

++ This act states that "the public good and the general good of the citizens of this State require adequate recreation programs, that the creation, establishment, and operation of parks and recreation programs is a proper government function, and that it is the policy of North Carolina to forever encourage, foster, and provide these facilities and programs for all its citizens." -- the statute authorizes each county and city in the State to develop recreation facilities.

GENERAL LAND USE ALTERATION

REGIONAL SEWAGE DISPOSAL PLANNING ACT OF 1971 (Sections 162A-26 to 162A-30)

++ Environmental Management Commission -- This act describes the functions to be performed by the EMC in order to provide a framework for comprehensive planning of regional sewage disposal systems and for orderly coordination of local actions relating to sewage disposal, to make possible the most efficient disposal of sewage and to help realize economies of scale in sewage disposal systems. -- This act also stablishes a Regional Sewage Disposal Planning Revolving Fund.

OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX

REGIONAL WATER SUPPLY PLANNING ACT OF 1971 (Sections 162A-20 to 162A-25)

++ This act acknowledges a dneed for planning and developing regional water supply systems in order to provide adequate supplies of high quality water to the citizens of NC -- it also authorizes the State to "provide a framework for comprehensive planning of regional water supply systems, and for the orderly coordination of local actions relating to water supply, so as to make possible the most efficient use of water resources and to help realize economies of scale in water supply systems -- This act also established a Regional Water Supply Planning Revolving Fund

FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX

SEDIMENTATION POLLUTION CONTROL ACT OF 1973
-- Division of Land Resource-NRCD -- This act recognizes sedimentation as a major pollutant of state waters. The act establishes the Sedimentation Control Commission and authorizes it to adopt necessary rules and regulations and implement a state program for erosion and sedimentation control. The act also requires that erosion and sedimentation control plans be submitted for activities that would disturb more than one acre of land.
FRESHWATER DRAINAGE
SEDIMENT FLUX

SMALL WATERSHED PROJECTS ACT (Section 139.53 to 139.57)
++ Soil and Water Conservation Commission -- This act authorizes the SWCC to accept applications for grants for nonfederal costs relating to small watershed projects for the following purposes: land rights acquisition for impounding or retarding water; engineering fees; anticipated future and present water supply needs; installation of recreational facilities and services; construction costs for water management; and conservation and replacement of fish and wildlife habitat. All grants are contingent upon the availability of funds for disbursement.
AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
SEDIMENT FLUX

SOIL ADDITIVES ACT (Section 106-50.28 to 106-50.41)
++ This act requires that every soil additive distributed in the state shall be registered with the Commissioner of Agriculture and the Commissioner will determine the acceptability of any product for registration.
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
NUTRIENT FLUX

SOIL AND WATER CONSERVATION DISTRICTS ACT (Sections 139-1 to 139-57)
++ This act declares as state policy ". . . to provide for the conservation of the soil and soil resources of this State, and for the control and prevention of soil erosion, and for the prevention of floodwater and sediment damages, and for furthering the conservation, utilization, and disposal of water, and the development of water resources and thereby to preserve natural resources, control floods, prevent impairment of dams and reservoirs, assist in maintaining the navigability of rivers and harbors, preserve wildlife, protect the tax base, protect public lands, and protect and promote the health, safety, and general welfare of the people of this State." This Act replaced the existing "soil conservation districts" with "soil and water conservation districts" and the "State

Soil Conservation Committee" with the "State Soil and Water Conservation Committee". The act authorizes any 25 occupiers of land with a proposed district to file a petition asking that a soil and water conservation district be organized. These districts constitute a governmental subdivision of the State and are authorized to perform a variety of functions related to conserving soil and water resources.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

SOLID WASTE MANAGEMENT ACT of 1978

-- Solid and Hazardous Waste Management Branch-DHR -- This act establishes the Solid and Hazardous Waste Management Branch within the Dept. of Human Resources as the single agency responsible for implementing all state and federal legislation on solid and hazardous waste management. The department is directed to engage in research, conduct investigations and surveys, make inspections, and establish a statewide solid waste management program. Authority is given to the Commission for Health Services to develop rules for the establishment, location, operation, maintenance, use, and discontinuance of solid waste management sites and facilities.

OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX

SPECIAL ASSESSMENTS ACT (Sections 160A-216 to 160A-238)

++ This act authorizes cities to make special assessments against benefited property within its corporate limits for constructing, reconstructing, paving, widening, and otherwise building and improving streets, sidewalks, water systems, sewage collection and disposal systems of all types, including septic tank systems or other on-site collection of disposal facilities or systems, and storm sewer and drainage systems. Assessments may be made on the basis of the frontage abutting the project, the area of land served by the project, the value added to the land served by the project, the number of lots served, or a combination of two or more of these bases. This act also describes the procedure to be followed to obtain a special assessment.

OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX

STREAM SANITATION ACT (Sections 143-211 to 143-215.73)

++ Essentially this act creates the Department of Natural Resources and Community Development to administer a complete program of water and air conservation, pollution abatement and control and to achieve a

coordinated effort of pollution abatement and control with other jurisdictions. The Dept. and the Environmental Management Commission are authorized to administer federally mandated programs of environmental management and to quality to accept and administer funds from the federal government for such programs. The DNRCD is directed to develop and adopt a system of classifications and standards for all waters in the state, to then survey all waters, and finally to assign a classification to each. The act prohibits discharges of any radiological, chemical or biological warfare agent or high-level radioactive waste to the waters of the State as well as any wastes to the subsurface or groundwaters by means of wells. The act establishes effluent standards and limitations and empowers the NRCD to assume authority for the NPDES program.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

STRUCTURAL PEST CONTROL ACT (Sections 106-65.22 to 106-65.39)

++ This act declares authorizes the regulation of persons, corporations and firms engaged in the business of structural pest control. The act establishes a Structural Pest Control Committee to issue, suspend, and revoke licenses and identification cards and is authorized to make rules and regulations governing those engaged in structural pest control.

TOXICANTS

TOXIC SUBSTANCES ACT OF 1979

-- Dept. of Crime Control and Public Safety -- This act controls the disposal of specific toxic substances: mercury, plutonium, selenium, thallium, and uranium, PCBs, and kepone. This act makes it a felony to dump, incinerate, or otherwise dispose of these substances in water or land unless it is done in accordance with a federal or state law, regulation, or permit. The Dept. of Crime Control and Public Safety is responsible for coordinating state agencies' initial response to critical toxic substance incidents.

TOXICANT

WATER USE ACT OF 1967

-- Division of Environmental Management-NRCD -- This law charges the EMC with the responsibility of carrying out a program of planning and education concerning the most beneficial long-term usé and conservation of the state's water resources.

The purpose of this statute is to conserve water resources and to maintain conditions that are conductive to the development and use of water resources. Under this act the Environmental Management Commission is authorized to designate "capacity use areas" where it is found that the use of groundwater or surface water or both requires coordination and regulation for the protection of the public interest.

FRESHWATER DRAINAGE
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

WATERSHED IMPROVEMENT DISTRICTS ACT (Sections 139-16 to 139-38)

++ This act authorizes the establishment of watershed improvement districts within one or more water conservation districts. Any 100 owners of land within a proposed district can file a petition to establish a watershed improvement district. The act also describes the procedure to be followed in establishing such a district and states that these districts will be supervised by the Soil and Water Conservation Commission. Watershed improvement districts constitute political subdivisions of the State and have all the powers of the soil and water conservation district(s) in which the district is situated.

AQUATIC HABITAT MODIFICATION
FRESHWATER DRAINAGE
OXYGEN-DEMANDING SUBSTANCES
TOXICANTS
SEDIMENT FLUX
COLIFORM BACTERIA
NUTRIENT FLUX

WATERSHED IMPROVEMENT PROGRAMS ACT

-- Division of Environmental Management-NRCD -- This law sets out procedures to be followed in connection with watershed improvement or drainage projects that involve channelization. The Environmental Management Commission is responsible for carrying out the provisions of this act.

AQUATIC HABITAT MODIFICATION

WELL CONSTRUCTION ACT (1967)

-- Division of Environmental Management-NRCD -- This law applies to wells withdrawing at least 100,000 gallons of water per day. It requires that wells be constructed so that groundwater contamination is prevented. The Environmental Management Commission has the authority to adopt rules and regulations.

TOXICANTS
COLIFORM BACTERIA
NUTRIENT FLUX

WILDLIFE RESOURCES LAW (Section 143-237 to 143-254.2)

++ This act creates the North Carolina Wildlife Resources Commission to manage, restore, develop, cultivate, conserve, protect, and regulate the wildife resources of the State and to administer the laws relating to game, game and freshwater fishes, and other wildlife resources. With its creation, the WRC assumed responsibilities which had previously been exercised by several variety bodies. The law also establishes the Wildlife Resource Fund and the Wildlife Endownment Fund.

AQUATIC HABITAT MODIFICATION

-- preceding description indicates that it was obtained from A GUIDE TO PROTECTING COASTAL WATERS THROUGH LOCAL PLANNING by the Division of Coastal Management, North Carolina Department of Natural Resources and Community Development (May 1986)

++ preceding description indicates that it was obtained from the statutory language of the Act as stated in the GENERAL STATUTES OF NORTH CAROLINA

NORTH CAROLINA LEGISLATION WITH MARGINAL/MINOR IMPACTS (SUMMARIES IN ALPHABETICAL ORDER)

NORTH CAROLINA LEGISLATION WITH A MINOR IMPACT
(in alphabetical order)

Condominium Act (Sections 47A-1 to 47A-28)
Outdoor Advertising Control Act (Sections 136-126 to 136-140)
Park Commission Act (Section 143-258)
Tax Increment Financing Act (Section 150-101 to 159-111)
Trails System Act (Section 113A-83 to 113A-94)
Water Safety Act (Section 75A-1 to 75A-26)

NORTH CAROLINA LEGISLATION WITH MARGINAL OR EXTREMELY MINOR IMPACTS
(in alphabetical order)

Advertising Control Act (Sections 136-126 to 136-140)

AIR AND WATER QUALITY REPORTING ACT
-- Division of Environmental Management-NRCD -- This statute authorizes the EMC to require all persons receiving a permit from the Division of Environmental Management to file reports covering the discharge of wastes in state waters and to establish and maintain approved systems for monitoring the quality and quantity of such discharges into the water.

Airport Development Act (Sections 63-65 to 63-72)
Alien Property Act (Sections 64-1 to 64-5)
Annexation Act (Sections 160A-24 to 160A-58.10)

ARCHIVES AND HISTORY ACT
++ Regulates the actions of public and private parties in order to ensure that historical and cultural resources are preserved. Section 121-12(a) requires that state agencies consider the effects of any projects funded, operated, or licensed by the agency on any structure, site or district listed in the National Register of Historic Places.

Atlantic States Marine Fisheries Compact Act (Sections 113-252 to 113-258)
Balanced Growth Policy Act (Sections 143-506.6 to 143-506.14)
Bicycle and Bikeway Act of 1974 (Sections 136-71.6 to 136-71.13)
Building Contract Act (Sections 143-128 to 143-135.4)
Carrier Act (Sections 62-259 to 62-281)
Cemetery Act (Sections 65-46 to 65-73)
City-County Consolidation Act (Sections 160B-1 to 160B-15)
Condemnation Act (Sections 40A-1 to 40A-69)
Connor Act (registration of conveyances) (Section 47-18)
Corporations Act (Sections 55-1 to 55-175)

DAM SAFETY LAW OF 1967
++ Requires the Department of Natural Resources and Community Develop-

ment to grant approval of dams and dikes greater than 15 feet in height and where the impoundment capacity is greater than 10 acre-fee. The statute is to provide dam safety and to ensure the maintenance of minimum stream flows of adeuqate quantity and quality below dams.

Energy Policy Act (Sections 62-2, 113B-1 to 113B-24)
Engineering and Land Surveying Law (Sections 89C-1 to 89C-28)
Fiscal Information Act for Local Government (Secitons 120-30.41 to 120-30.48)
Fraudulent Conveyance Act (Sections 39.15 to 39.22)
Gas Conservation Act (Sections 113-381 to 113-415)
Highway Safety Act (Sections 20-183.1 to 20-183.8)
Horizontal Property Act (Sections 47A-1 to 47A-28)
Housing Authorities Law (Sections 157-1 to 157-39.8)
Housing Corporation Act (Sections 122A-1 to 122A-23)
Housing Finance Agency Act (Sections 122A-1 to 122A-23)
Inheritance Tax Act --
Land Contracts Registration Act
Land Policy Act
Land Title Registration Act
Local Government Bond Act
Local Government Budget and Fiscal Control Act
Local Government Fiscal Information Act
Local Improvement Act
Mine Safety and Health Act
Mining Compact
Municipal Corporations Act
Municipal Finance Act
Municipal Fiscal Control Act
Occupational Safety and Health Act of North Carolina

OIL AND GAS CONSERVATION ACT
++ This Act authorizes the Dept. of NRCD to regulate oil and gas exploration and production in North Carolina, including submerged lands.

Public Building Contracts Act
Public Transportation Authorities Act
Public Utilities Act
Public Utilities Commission Act
Public Works Act
Quarries and Mines Act
Real Estate License Law
Real Property Acquisitions Policies Act
Right of Way Act
Rural Electrification Act
Sales and Use Tax Act
Sinking Fund Act
Southeastern Interstate Forest Fire Protection Compact
Southeastern Interstate Low-level Radioactive Waste Management Compact
Southern Growth Policies Agreement Act

Southern State Energy Compact
Supplemental Local Goverment Sales and Use Tax Act
Transportation Authorities Act
Unmarked Human Burial and Human Skeletal Remains Protection Act
Use Tax Act

LOCAL TOOLS AND AVAILABLE TECHNIQUES

LOCAL TOOLS AND TECHNIQUES AVAILABLE FOR MANAGING DEVELOPMENT AROUND THE ALBEMARLE AND PAMLICO SOUND

- Land Acquisition
  - Acquisition of Easements
  - Advance Site Acquisition
  - Tranfer of Development Rights
  - Compensable Regulation
  - Inverse Condemnation
- Public Spending
  - Capital Improvement Program
  - Annexation
  - Development Timing
- Taxation
  - Special Assessment
  - Preferential Assessment
- Development Regulations
  - Legal Challenges to the Validity of Development Regulations
    - Constitutional Challenges
    - Ultra Vires Challenges
    - Procedural Challenges
- Regulatory Growth Management Tools
  - Interim or Temporary Development Regulations
  - Conventional Zoning
  - Minimum Lot Size Zoning
  - Exclusive Agricultural or Nonresidential zoning
  - Height Restrictions
  - Aesthetics and Land Use Regulation
  - Conditional and Contract Zoning
  - Special Exception
  - Bonus and Incentive Zoning
  - Floating Zones
  - Performance Zoning
  - Planned Unit Development and Cluster or Average Density Zoning
  - Subdivision Regulations
  - Subdivision Regulations Relating to Off-Site Facilities
  - Population Caps
  - Official Mapping
  - Maximum Lot Size
  - Building Inspection
  - Annual Permit Limits
  - Regulation of Mobile Homes
  - Local Environmental Impact Ordinances

** For more information on these local tools and techniques, see the attached appendix, "Development of Growth Management Systems for North Carolina".

DEVELOPMENT OF GROWTH MANAGEMENT SYSTEMS FOR NORTH CAROLINA

I. Growth Management Systems

This paper describes a process for the development of growth management systems for North Carolina. Growth management is a conscious government program to influence the characteristics of growth in order to achieve community goals and objectives. In areas experiencing little economic growth, the management system might attempt to encourage beneficial industrial, commercial, and residential development while in rapidly developing areas such a system may have objectives such as slowing or directing the location of development until adequate public services are available.

The paper makes no attempt to provide a ready-made system for managing growth since the combination of regulations and incentives designed to guide development in one community would necessarily have objectives built-in that may not be applicable to another community. The varied social, economic, and natural environment of our state's communities requires careful attention to local conditions if the growth management system is to be effective in the achievement of community goals and objectives.

Growth management should not be viewed as a replacement for land use planning. Many communities in North Carolina either have, or are developing land use plans. For example, in eastern North Carolina the Coastal Area Management Act of 1974, N.C.G.S. §113A-100 et seq., (CAMA) creates important land use planning requirements for coastal communities. The planning program mandated by CAMA requires that local land use plans be adopted by local governments. The Coastal Resources Commission (CRC) sets guidelines for the plans, approves plans adopted by localities, and prepares plans itself if the local government refuses to do so. CAMA's regulatory program applies only in areas designated by the CRC as "areas of environmental concern." These areas include about 3 percent of the land area of the 20 coastal counties. The CRC regulates development within these areas, but this does not preclude local control over other aspects of the AEC. Outside of these areas of environmental concern, land use regulation and growth management policy are the sole responsibility of local governments.

The formulation of a growth management system should be integrated into the land use planning process. Background studies of social, economic, fiscal and environmental conditions are important to an understanding of existing problems, future needs, and citizen goals. The land use planning process is the basis for decisions about the manner in which growth should be influenced and the tools that will be effective in the achievement of planning goals.

II. Growth Management Tools and Techniques

The process of designing a growth management system involves six basic steps: (1) determination of community goals, objectives and policies; (2) analysis of the existing de facto growth management system; (3) inventory of tools and techniques available to achieve community goals; (4) adjustment of the growth management techniques to the community; (5) growth management system synthesis; and (6) monitoring the system for effectiveness.

This paper will not discuss the planning process necessary to create a growth management system that is individually tailored to the goals, objectives, resources, and environment of a specific community. It will instead provide an inventory of tools and techniques available for the implementation of a growth management system. Growth management tools and techniques are land use control devices which influence one or more of the following characteristics of growth: (1) the amount or quantity of development; (2) the type of development, both major types such as residential, commercial, industrial, or open space and sub-types such as single or multi-family residential; (3) the cost of growth, including the economic costs, the manner in which these economic costs are distributed and the environmental costs; (4) the location of development and the geographic direction of growth; (5) the timing of growth; (6) the quality of development; and (7) the density of development.

These characteristics of growth can be influenced to achieve community goals and objectives, in light of community resources (such as administrative capacity, tax revenues, etc.), by using four major categories of techniques or tools: land acquisition, public spending, taxation, and land use regulations.

After ascertaining community goals and objectives concerning growth management, the first important step in developing a growth management system is to evaluate to what extent, if at all, the existing de facto growth management system is achieving these goals and objectives. If the de facto system is not achieving these goals and objectives and cannot be adjusted to do so, the next appropriate step is an inventory of tools and techniques that may be appropriate for use by the community.

The purpose of the inventory that follows is to provide a selection from which local decision makers can choose techniques and tools that are compatible with local conditions, goals, objectives, and resources.

The tools and techniques are grouped into four categories: land acquisition, public spending, taxation, and development regulation. The probable influence of each technique on growth, the advantages and disadvantages of the technique when applied, and the legal status of the technique in North Carolina is discussed. See D. Brower, C. Carraway, and T. Pollard, Developing a Growth Management System for Rural Coastal Communities (1981: Center

for Urban and Regional Studies, University of North Carolina at Chapel Hill), for a more in-depth discussion.

A. Land Acquisition

Development of a community often requires the purchase of land by the county or the municipality. Land acquisition by a local government must meet the public purpose test. Early North Carolina decisions required that land purchased by a governmental unit meet a narrow "use by the public" formulation of the public purpose test. Cozad v. Kanawha Hardwood Co., 139 N.C. 283, 51 S.E. 932 (1905). More recently a broader "public benefit" application of the public purpose test has been applied in judicial review. State Highway Commission v. Asheville School, Inc., 276 N.C. 556, 173 S.E.2d 909 (1970). See also Note, "Eminent Domain--The Public Use Requirement," 46 North Carolina Law Review 663 (1968).

The authority to acquire property or interests in property is granted to North Carolina counties and municipalities in N.C.G.S. §§153A-158 and 160A-11, respectively. In addition, municipalities are authorized to purchase property in fulfillment of urban development and growth management policies under N.C.G.S. §160A-457, which authorizes cities to acquire property by voluntary purchase for historic preservation, for the conservation of open space, for the beautification of urban land, for sound community development and growth, for scenic area conservation, and for other growth management oriented purposes.

1. Acquisition of Easements

The acquisition of easements is an effective growth management device when regulation or other growth management tools are ineffective in fulfilling a growth management objective and fee simple acquisition is not necessary or is prohibitively expensive. The Historic Preservation and Conservation Agreements Act of 1979, N.C.G.S. §121-34 et seq., facilitates the use of negative easements by municipalities and private non-profit organizations for the protection of select lands. The Act states that "[n]o conservation or preservation agreement shall be unenforceable because of 1) lack of privity of estate or contract, or 2) lack of benefit to particular land or person, or 3) the assignability of the benefit to another holder..." N.C.G.S. §121-38. The statute recognizes conservation agreements as interests in land, and makes such agreements enforceable by the holder by injunction or by other equitable remedy.

Property subject to such agreements is to be assessed on the basis of the true value of the property, reflecting the reduction in value caused by the terms of the conservation or preservation agreement. The statute applies to agreements for the preservation of historic structures, and to agreements to retain land substantially in its natural condition for agricultural, forestry, outdoor recreation, or natural uses. Chapter 793 of the 1983 Session

Laws encourages the donation of such interests in real property, or the donation of fee simple interests, to state or local governments. This new law allows tax credits for certain conservation donations.

Acquisition of easements allows a locality to restrict the uses of the land to those which are compatible with the environment or the character of the area. By purchasing open space easements, the community can have a direct impact on the direction of growth and can limit the development options of a particular site.

There are a variety of other innovative methods of property acquisition for growth management purposes available to a municipal or county government including advance site acquisition, transfer of development rights, and compensable regulations.

2. Advance Site Acquisition

Advance site acquisition involves the purchase of land for public facilities in advance of actual need. This enables local governments to preserve the most suitable sites for public use and to avoid paying inflated prices for land needed for public facilities. It also provides advance notice of where public facilities are to be located, which can influence the location of private development.

Courts have generally upheld cities' right to acquire land in advance of need. Condemnation for a future use was upheld by the United States Supreme Court in 1923, in Rindge v. Los Angeles-County, 262 U.S. 700 (1923). In North Carolina, there is no specific enabling legislation for advance site acquisition, but the concept does receive support from North Carolina statutues which allows the reservation of school sites in accordance with a comprehensive land use plan as part of a subdivision regulation ordinance. N.C.G.S. §160A-373 (cities), §153A-331 (counties).

The concept or practice of advance site acquisition has never been directly challenged in North Carolina, but receives judicial support in Vance County v. Royster, 271 N.C. 53, 155 S.E.2d 790 (1967), which upheld the condemnation of land for construction of a public airport. The holding stated that it is immaterial that in the immediate future, only a small segment of the public will be likely to make actual use of the airport, since the airport is necessary for projected future demands.

3. Transfer of Development Rights

The transfer of development rights (TDR) is an innovative approach to development management which is being used in only a few cases in the country. The basic concept underlying TDR is that ownership of land includes a right to develop the land, a

right which may be separated from other ownership rights and transferred to someone else. For example, under a TDR system, an owner can sell this development right to another property owner who under the system must collect a specified number of development rights before developing his or her property at a desired density. There is considerable variation in the goals sought to be achieved and in the procedure used to administer transfer of development rights systems; the system has been used for historic preservation, farmland and open space preservation, and for managing growth.

It appears that enabling legislation would be necessary in North Carolina prior to the implementation of a TDR system, but because of the publicity TDRs have received, an explanation of the system is in order. Under a typcial TDR system, the government awards development rights to each parcel of developable land in the community based on acreage or value of the land. The system is set up so that no owner possesses enough development rights to develop all of his or her property without buying some rights from someone else. Persons sell their development rights on the open market because they do not want to develop or are prohibited by regulation from developing their property. Land for which development rights have been sold cannot be developed.

The system could work in the following way. Suppose "A" owns four acres of land and the land has been allocated two development rights. If "A" is required (by a regulation) to have one right per acre in order to develop the land for commercial purposes, "A" has two choices. First, "A" can develop just two acres and use up all the allocated development rights. In that case the remaining two acres cannot be developed. Alternatively, "A" can buy two more rights on the market and develop the entire four acres.

The use of TDR is predicted to substantially eliminate the value shifts and inequities of zoning by allowing the market to compensate owners who under a normal zoning scheme would have the development potential of their land restricted with no compensation.

In addition to being proposed as a basic land use system that can replace zoning, TDR has been suggested as a means of preserving open space, preserving landmarks, preserving ecologically sensitive areas, and managing growth. It is, however, at this point, unproven except in very localized circumstances.

For further discussion, see Rose, "Transfer of Development Rights: A Preview of an Evolving Concept," 3 Real Estate Law Journal 331 (1975); and Merriam, "Making TDR Work," 56 North Carolina Law Review 77 (1978).

4. Compensable Regulation

A system of compensable regulations provides compensation to landowners whose property values have decreased due to land use regulations. Compensation may be provided to save restrictions from being invalidated as an unconstitutional taking of private property without just compensation. Compensable regulations give the government the option of compensating the landowner for the restrictions on his property in order to prevent the regulation from being held an unconstitutional taking. Thus the public buys that development right which would involve a title transfer.

It is not clear in North Carolina whether specific enabling legislation is required for this type of compensatory scheme. Arguably zoning enabling legislation together with the power of eminent domain permit a local government to enact compensatory land use regulations.

Funding is the most obvious limitation on the use of this technique as a growth management tool, especially if the technique is to be used extensively. For further discussion, see Shellan, "Compensable Regulations: Outline of a New Land Use Planning Tool," 10 Willamette Law Journal 451 (1974) and Hagman , "Compensable Regulations: A Way of Dealing with Wipeouts from Land Use Controls?" 54 University of Detroit Journal of Urban Law 45 (1976).

5. Inverse Condemnation

Closely related to a growth management system using compensable regulations, is the judicial doctrine of inverse condemnation. The remedy for confiscatory or invalid land use regulations has traditionally been invalidation of the ordinance. Under the inverse condemnation theory, the doctrine of eminent domain and the police power merge to allow the landowner, rather than the local government, to bring suit for condemnation of property, when the landowner alleges that an ordinance is an unconstitutional taking by the exercise of the police power. This remedy subjects local governments to suits brought by landowners for compensation for the reduction in value of their lands by regulations that are deemed a taking. North Carolina has recognized an action for inverse condemnation against a local government possessing the power of eminent domain. State Highway Commission v. L.A. Reynolds Co., 272 N.C. 618, 159 S.E.2d 198 (1968); Long v. City Charlotte, 306 N.C. 187, 293 S.E.2d 101 (1982).

B. Public Spending

1. Capital Improvement Program

The provision of municipal services is an important tool for the implementation of a growth management system. The extension of municipal services is governed by the capital improvement program, a timetable used by a city to indicate the timing and level of municipal services (such as sewer and water services and public transportation) that it intends to provide over time to specified areas around the city.

Capital programing can be used by itself as a growth management technique. By tentatively committing itself to a timetable for the provision of capital for the extension of city services that city can control its growth to some extent, especially where the surrounding area is of such a nature that provision of on-site sewage disposal and provision of water are unusually expensive. Few developers will be able or willing to put up sufficient capital to develop land according to a schedule different from that of the city's capital program. Both developers and planners can benefit from the relative certainty that such a program provides.

A community may influence land use decisions even more effectively by coordinating its utility and services extension policy with its comprehensive plan and with a formal growth management system. In addition to formulating a timetable for the provision of services, a municipality can control the extension of and access to municipal services. Manipulation of utility extension policy may have the effect of making development prohibitively expensive within a specified area where the decision is made not to extend services. Utility extension policy may be used to make a serviced area more attractive for development than generally less expensive land in outlying areas.

Utility extension policy, in and of itself, is only subject to legal challenge if it fails to meet the procedural requirements of the Local Government Finance Chapter (Chapter 159) of the North Carolina General Statutues. The use of utility extension policy in order to restrict or direct the growth of a city is, however, subject to a variety of challenges.

The use of utility extension policy as a tool for controlling the growth of a city is limited somewhat in North Carolina. Within the city limits, a city may be required to provide equal service to all its residents, once it provides a service to any of them. Fulgham v. Town of Selma, 238 N.C. 100, 76 S.E.2d 368 (1953); Abbott v. Town of Highlands, 52 N.C. App. 69, 277 S.E.2d 820 (1981). The city may extend utility services beyond the city limits, but only within reasonable limits and for the public benefit. Town of Grimesland v. City of Washington, 234 N.C. 117, 66 S.E.2d 794 (1952). The city is

under no obligation to do so. Fulgham, supra. The city, when considering the extension of services beyond its limits, must consider the amount of territory to be serviced, its distance from the city, and the effect that extension will have on customers' rates and the city's capital debt structure. Public Service Co. of North Carolina v. City of Shelby, 252 N.C. 816, 115 S.E.2d 12 (1960). If the city extends services beyond the city limits, it has some discretionary power to condition the provision of the services. The agreement to provide extraterritorial services is contractual in nature, subject to the usual rules of bargain and contract. Rates may be higher for extraterritorial customers.

2. Annexation

Annexation is the means by which a city increases its land area. The procedure for annexation is controlled by statute. N.C.G.S. §§160A-24 to 160A-58.6; Chapter 636, 1983 Session Laws. The statutes cover the power of a city to annex, the duties of a city which attempts to annex and the procedures to be followed in the annexation process. Generally the area to be annexed must be contiguous to the city, but provision is made for the annexation of noncontiguous areas. N.C.G.S. §160A-58.1.

The decision to annex is discretionary. A city may, therefore, direct its growth to areas which are best able to support development, favoring development in areas closest to existing services, and discouraging development in areas less able to absorb development. To the extent that growth is guided in this fashion, the cost of service provision and the amount of environmental damage can be reduced. Further, a city may control the timing of its growth to ensure that municipal facilities are capable of bearing the additional demand. Annexation is particularly effective when used in conjunction with a utility extension policy, as the primary difference between annexed and non-annexed land is the duty to provide utilities service.

Annexation in North Carolina is not required to subject an outlying area to the city's zoning authority in all situations. Municipalities have the authority to engage in extraterritorial zoning. The distance subject to extraterritorial jurisdiction is between one and three miles, depending upon the size of the city. The constitutionality of such extraterritorial authority has been upheld in City of Raleigh v. Morand, 247 N.C. 363, 100 S.E.2d 870 (1957).

Annexation legislation and constitutional requirements are reviewed in a recent North Carolina Court of Appeals decision, Abbott v. Town of Highlands, 52 N.C. App. 69, 277 S.E.2d 820 (1981).

3. Development Timing

Development timing is a process which puts limits on the physical and demographic growth of a town which is under substantial pressure to expand its services to provide for an expanding population. A timing ordinance is usually designed to coordinate that expansion with the town's fiscal ability to provide services, and is connected with a town's comprehensive plan in order to control the quality of the development.

The power of a development timing ordinance lies in the fact that certain services essential to the development of new housing, such as sewage treatment, water supply, and roads, are so expensive that a developer must usually rely on a municipality to provide the capital for them. A municipality can therefore exert substantial leverage on the location of and timing of growth through provision of municipal services. Development timing ordinances are enforced by means of the municipality's control over the permit-letting process, and justified by its connection with a comprehensive plan. Using a comprehensive plan to delineate the location and type of development desired and a capital program to schedule the provision of services, the city can make available to the developer, with reasonable certainty, information concerning when the development of a particular parcel will be allowed and the type of development that will be allowed.

Whether a development timing ordinance is within statutory and constitutional parameters in North Carolina has not been addressed. Development timing ordinances in other states have been upheld against a battery of statutory and constitutional challenges. Golden v. Planning Board of Township of Ramapo, 30 N.Y.2d 359, 285 N.E.2d 291, appeal dismissed 409 U.S. 1003 (1972); Construction Industry Association of Sonoma County v. City of Petaluma, 522 F.2d 897 (1975).

C. Taxation

Taxation, while not a growth management tool per se, may have important impacts upon land use development decisions. Taxation policies can be used to complement a city's land use regulation policies. There are three basic constitutional restrictions on the power of local government to levy and collect taxes. First, the tax must be for a public purpose, which applies to how the revenues are spent. North Carolina Constitution, Article V, Section 2. See also, Martin v. North Carolina Housing Corporation, 277 N.C. 29, 178 S.E.2d 665 (1970); Green v. Kitchen, 229 N.C. 450, 50 S.E.2d 545 (1948); and Mitchell v. North Carolina Industrial Development Financing Authority, 273 N.C. 137, 159 S.E.2d 745 (1968).

Second, the tax must not be arbitrary, capricious, unreasonable, or confiscatory. The North Carolina Constitution, Article V, Section 2, mirroring in effect the U.S. Constitution's Fourteenth Amendment, requires the tax to be levied "in a just and equitable manner." Classification for the purpose of taxation must not be unreasonable or arbitrary. Southern Grain Provision v. Maxwell, 199 N.C. 661, 155 S.E. 557 (1930).

Third, the tax must be applied uniformly within each class. North Carolina Constitution, Article V, Section 2. A city tax must, for instance, be applied across the city uniformly. See Hajoco Corp. v. Clayton, 277 N.C. 560, 178 S.E.2d 481 (1971).

1. Special Assessment

The method of taxation that potentially has the greatest impact upon growth management policy is the special assessment. A special assessment, while not technically a tax, is a method of raising revenue in which all or part of the cost of a facility (such as a road improvement, sewer or water system) is charged to a property owner who is so situated in relation to the facility as to derive a special benefit from the improvement. The tax charged each property owner is usually proportionate to the distance for which the facility abuts his or her property, the area of the land served by the improvement, or the value added to the land served by the project. N.C.G.S. §§160A-217 to 236 grant cities the authority to levy special assessments and govern the exercise of the authority.

Challenges to special assessments are usually based upon procedural grounds. See Broadway v. City of Asheboro, 250 N.C. 232, 108 S.E.2d 441 (1959). Challenges to special assessments face little chance of success unless the plaintiff can show that the improvement does not confer a special benefit on the assessed property. See Southern Railway v. City of Raleigh, 9 N.C. App. 305, 176 S.E.2d 21 (1970), and City of Raleigh v. Mercer, 271 N.C. 114, 155 S.E.2d 551 (1967).

2. Preferential Assessment

In addition to special assessments, the preferential assessment of property, or the use-value assessment, may be used to manage development. Use-value assessment is a system of taxation in which the tax assessor values a parcel of land solely on the basis of its current income-producing capacity. It is distinguished from the usual market-value assessment systems which generally consider the potential development of the parcel in its valuation. Preferential taxation is the term used when certain classes of property are assessed at a use-value rather than market-value rate.

Legislation permitting preferential assessment of farmland and forestland has been enacted in North Carolina. N.C.G.S. § 105-277.2 et seq. This legislation reduces the tax burden on farmlands and forestlands. Preferential assessment may provide a haven for the land speculator who may hold farmland or forestland at a lower interim cost, while waiting for the land to appreciate. To avoid this outcome, North Carolina uses a deferred taxation system to increase the likelihood that the tax will have the effect of holding the land out of development. Under this deferred taxation policy, the land is taxed at use-value assessment until the land is converted to a non-agricultural use, when the difference between the amount paid under the use-value assessment and the amount that would have been due under a market value assessment, for the past five years, becomes due.

The major shortcoming of the preferential assessment system is that alone it has not had much effect on the land development patterns near expanding urban areas. Preferential assessment can effectively supplement other land use regulations which tend to decrease land values by relieving some of the financial burdens of holding the restricted land in agricultural use. It may be an incentive for landowners to not develop their land prematurely by allowing them to continue farming or to continue other non-intensive uses. See Henke, "Preferential Property Tax Treatment for Farmland," 53 Oregon Law Review 117 (1974).

D. Development Regulations

Unlike the powers of local government previously discussed, regulatory powers are based on the police power.

1. Legal Challenges to the Validity of Development Regulations

There are several potential legal challenges to the exercise of regulatory powers by local government: (1) constitutional challenges -- state or federal constitutional limitations, (2) ultra vires challenges -- claims that the regulatory action is beyond the valid authority of local government without additional enabling legislation from the state, and (3) procedural challenges -- which may be based upon the specific enabling legislation, state administrative procedures acts, or constitutional procedural due process guarantees.

a. Constitutional Challenges

There are four principal constitutional challenges to municipal regulations: substantive due process, equal protection, taking of private property without just compensation, and the unlawful delegation of legislative power.

(1) Substantive due process -- is a broad challenge to the validity of a regulation. To survive a substantive due process challenge, regulatory action must relate to a legitimate state purpose and the means chosen must be rationally related to this purpose. Arbitrary results from regulatory action are prohibited. Under both the federal and state constitutions, this entails a minimal judicial review.

(2) Equal protection -- is applicable when local government action involves a classification. Most such classifications are reviewed under a minimal scrutiny or rational basis test, which is similar to the substantive due process test. This test requires a legitimate governmental purpose and a means rationally related to the purpose. A strict scrutiny test is applied when a classification is based upon a suspect class or infringes upon a fundamental interest. A compelling state interest is required and the means chosen must be necessary to the ends. This test is applied to racial classifications, or to the invasion of one's right to privacy. More likely, a land use regulation will be reviewed under a rational relationship test. The North Carolina Supreme Court recently decided an equal protection challenge to a land use ordinance in Responsible Citizens in Opposition to the Flood Plain Ordinance v. City of Asheville, 308 N.C. 255, 302 S.E.2d 204 (1983). There the court repeated the equal protection analysis in most land use regulation challenges: "[n]either the Equal Protection Clause of the Fourteenth Amendment to the United States Constitution nor the similar language in Art. I, §19, of the Constitution of North Carolina takes from the State the power to classify persons or activities when there is reasonable basis for such classification and for the consequent difference in treatment under the law." Id., at 267-68, 302 S.E.2d at 212.

(3) The regulation must not be a taking of private property without just compensation. It is settled that a diminution in property value, even a substantial one, due to the effect of regulation will not constitute a taking. In Responsible Citizens in Opposition to the Flood Plain Ordinance v. City of Asheville, supra, the North Carolina Supreme Court reviewed the constitutional test to determine whether a municipal ordinance constitutes a taking of private property. Applying the requirements of the North Carolina Constitution, the court applied an "ends-means" analysis. First, the desired ends must be a legitimate exercise of the police power. Second, the means chosen to reach this objective must be reasonable. This latter inquiry is two-fold; is the statute reasonably necessary to promote the public health, safety, and welfare, and is the interference with the landowner's right to use his property reasonable in degree? The holding indicated that for an interference to be unreasonable in degree, the regulation must leave the property with no reasonable use and no practical value.

The federal constitutional test requires a similar showing of no practical use of the property due to a regulation before a taking will invalidate a land use regulation. Penn Central Transportation Co. v. City of New York, 438 U.S. 104 (1978).

(4) The North Carolina Constitutional limitation on the delegation of legislative power is a potential constitutional constraint to the exercise of regulatory powers. This doctrine requires that all statutes delegating legislative powers must be accompanied by adequate standards describing the limits of that power and its application.

In local land use decision-making, agencies that are delegated legislative powers by the local governmental body must be provided with adequate standards in the grant of authority. The unlawful delegation doctrine turns upon whether adequate standards accompany the delegation to ensure that the body to which the delegation is made is not free to arbitrarily restrict the rights of individuals. See Matter of Broad and Gales Creeks Community Association, 300 N.C. 267, 266 S.E.2d 645 (1980), Adams v. North Carolina Department of Natural and Economic Resources, 295 N.C. 683, 249 S.E.2d 402 (1978).

b. Ultra Vires Challenges

A second common challenge to municipal land use regulations is a claim that the regulation is beyond the scope of the state enabling legislation or is ultra vires. State enabling legislation is often broad and unclear in defining its parameters; therefore innovative regulatory or zoning techniques often face a challenge that they are not authorized by legislation. The issue generally turns upon the care with which the local ordinances and regulations thereunder are conformed to the legislative purposes set forth in and the powers delegated by the enabling legislation.

c. Procedural Challenges

Decisions by appointed officials, as well as elected officials, are often faced with challenges based on procedural grounds. Procedural challenges may be based upon constitutional or statutory bases. The constitutional basis for procedural challenges is the requirement that notice and an opportunity to be heard must be afforded affected parties prior to regulatory action. Specific enabling legislation may contain additional procedural requirements, such as mandatory annexation and zoning procedures. The procedures required by the North Carolina Administrative Procedures Act may also apply to a challenged action. N.C.G.S. Chapter 150A. See also, Humble Oil and Refining Co. v. Board of Aldermen, 284 N.C. 458, 202 S.E.2d 127 (1973).

2. Inventory of Regulatory Growth Management Tools

Challenges to the validity of a municipal or county ordinance may be brought against any type of development regulation. The following inventory of specific regulatory techniques therefore only mentions these challenges if there is a particular question concerning the validity of the specific growth management technique.

a. Interim or Temporary Development Regulations

Interim or temporary regulations are designed to substantially retard development for a limited period. These regulations often take the form of a complete temporary moratorium on certain types of development or all development in certain locations. Temporary development moratorium can be of at least two types. First a planning moratorium may be used to slow or to freeze development in a certain area until a plan can be delivered and a permanent scheme of growth management controls can be implemented. This type of control serves three functions: it permits planning and ordinance writing to proceed relatively free of development pressures; it prevents uses that will be incompatible with the eventual regulatory and planning scheme from being initiated before the scheme is operational; and it allows time for public debate on issues relevant to development of the permanent control system.

Second, an environmental moratorium restricts development during a period in which community facilities are over-pressured. Environmental moratorium are most commonly called for during rapid community growth, and to be effective, must generally be tied to programming of facilities related to the environmental problem. The most common example of such a moratorium involves inadequate capacity of a sewage treatment facility. For example, in the early 1970's, Currituck County instituted a 15-month moratorium on approval of new subdivisions in order to provide time for land use planning and replatting of unrealistic subdivisions.

The power to impose an interim moratorium on development is not granted explicitly to local governments in North Carolina zoning or planning enabling legislation. Reasonable interim controls, if related to pressing community problems, however, are likely to be upheld. Judicial decisions in several other states have upheld interim moratoria, as constitutional and as within the scope of standard zoning enabling legislation. See Westwood Forest Estates v. Village of South Nyack, 23 N.Y.2d 424, 244 N.E.2d 700 (1969).

This type of regulation may temporarily slow the rate of growth to protect particularly sensitive areas or to allow establishment of a comprehensive regulatory scheme without the rush for building permits prior to its adoption.

b. Conventional Zoning

Zoning, with its emphasis on separation of uses, predictability of land development, and regulation of building height, bulk, and land area is the most common regulatory device for guiding land development in North Carolina. Zoning may be used to control the type of land use (commercial, industrial, or residential), as well as to control the density of development, and the height and bulk of buildings.

Authority to zone is granted in N.C.G.S. §153A-340 et seq. to counties and in §160A-381 et seq. to cities. This enabling legislation is based upon the U.S. Department of Commerce Standard State Zoning Enabling Act, which is the basis for zoning enabling legislation in most of the states. Local zoning ordinances must be in accordance with a comprehensive plan. N.C.G.S. §160A-383 (municipalities); §153A-341 (counties).

The 1983 General Assembly expanded the zoning power of coastal counties. Counties may now zone and otherwise regulate development over waters covering State-owned land. "Floating homes" are specifically made subject to regulation by the recent legislation. Chapter 441, 1983 Session Laws.

The zoning enabling legislation establishes the permissable purposes for zoning as lessening congestion in the streets; securing safety from fire, panic and other dangers; promoting health, safety and the general welfare; providing adequate light and air; preventing overcrowding of land; avoiding undue concentration of population; and facilitating adequate provision of transportation, water, sewerage, schools, parks, and other public requirements. Zoning purposes and variations which are found not to serve these purposes are ultra vires and invalid unless authorized by other legislation. Zoning addresses the use of land, therefore if a use is permitted, it is beyond the zoning power of local government to regulate the manner of ownership of the legal estate. For instance, a zoning regulation may not draw a distinction between apartment ownership and condominium ownership. Graham Court Associates v. Town Council of Chapel Hill, 53 N.C. App. 543, 281 S.E.2d 418 (1981).

Zoning has been upheld as a legitimate exercise of the police power since the United States Supreme Court decision in City of Euclid v. Ambler Realty Co., 272 U.S. 365 (1926). The application of specific provisions is still subject to challenge. In North Carolina, the Supreme Court has held that a zoning ordinance is valid unless "it has no foundation in reason and is a merely arbitrary or irrational exercise of power having no substantial relation to the public health, the public morals, the public safety, or the public welfare in its proper sense." In re Parker, 214 N.C. 51, 55, 197 S.E. 706, 709 (1938). The court

grants zoning ordinances a presumption of validity. State v. Joyner, 286 N.C. 366, 211 S.E.2d 320, appeal dismissed 422 U.S. 1002 (1975).

c. Minimum Lot Size Zoning

This zoning technique, also called large lot zoning, can be used to preserve environmentally sensitive areas, and to keep residential development at a low density in scenic or sensitive areas. This type of zoning may produce an inefficient form of development, which increases the cost of providing services within the area. Minimum lot sizes also tend to drive up land and housing costs. Extensive minimum lot size requirements are likely to face legal difficulties where it appears that the primary purpose of the ordinance is exclusionary (to prevent certain groups of people from residing in a community) rather than related to a valid governmental purpose such as protection from septic tank pollution or protection of environmentally fragile or scenically important areas. See Salamar Builders v. Tuttle, 29 N.Y.2d 221, 325 N.Y.S.2d 933 (1971) - (upholding large lot zoning to protect against septic tank pollution) and National Land and Investment Co. v. Kohn, 419 Pa. 504, 215 A.2d 597 (1965) - (striking down large lot zoning intended to prevent the overburdening of existing municipal services).

d. Exclusive Agricultural or Nonresidential Zoning

A zoning ordinance which excludes residential use from certain areas is used to prohibit subdivisions from expanding into an area, and serves, in effect, as a holding zone to contain urban development, to protect agricultural areas from increased demands for commercial and residential development, and to prevent scattered residential development which is difficult to serve with public improvements and services.

Land which is not suitable for agricultural uses cannot be designated for such use simply to prevent further growth in an area. If land on the urban fringe which is in fact not agricultural land but in reality land ready for development, is zoned exclusively agricultural, the courts will probably invalidate the ordinance as a taking without just compensation. The same problem is encountered in any attempt to zone an area exclusively industrial or for other exclusively non-residential uses. North Carolina zoning enabling legislation provides for the use of exclusive non-residential zoning.

e. Height Restrictions

Regulation of building height is used to control the density of development and to control the adverse effects of

tall buildings which cut off light and impair scenic vistas, cause fire protection problems, and may over-tax other municipal services. The regulation of building heights is widely used, and when reasonable and reasonably-related to local governmental objectives is easily upheld as a valid exercice of the police power.

f. Aesthetics and Land Use Regulation

The North Carolina Supreme Court has recently recognized aesthetic goals as constitutional purposes which may be accomplished by land-use regulation, including zoning. In A.S.P. Associates v. City of Raleigh, 298 N.C. 207, 258 S.E.2d 444 (1979), and State v. Jones, 305 N.C. 520, 290 S.E.2d 675 (1982), the North Carolina Supreme Court held that land-use regulation may be based upon historic preservation goals and upon aesthetic goals. Reasonable exercises of the police power based upon historic preservation or aesthetic concerns are acceptable under this expanded scope of permissable police power exercises. In the Jones decision, the court stated that reasonableness is determined by balancing the diminution in value of an individual's property against the corresponding gain to the public from the regulation. Community benefits that may be considered as part of the balancing test include protection of property values, promotion of tourism, and preservation of the character and integrity of the community in addition to protection of the health and safety of the community.

The Jones decision, upholding an aesthetic-based regulation, related to a junkyard shielding requirement in a Buncombe County ordinance. Since the Jones decision, the North Carolina Court of Appeals has upheld an ordinance that prohibits off-premise commercial signs. R.O. Givens, Inc. v. Town of Nags Head, 58 N.C. App. 697, 294 S.E.2d 388 (1982), appeal dismissed 307 N.C. 127, 297 S.E. 2d 400 (1982). In determining that the off-premise commercial sign ban was permissable the court noted the economic importance of tourism to the municipality, and held that aesthetics constituted and valid basis for the exercise of the police power with respect to commercial off-premise signs.

g. Conditional and Contract Zoning

Under a contract zoning ordinance, a landowner contracts with the local government to subject property to deed restrictions in exchange for a desired zoning change. Conditional zoning involves similar concessions from the developer, with no reciprocal obligation from the local government to contract away its regulatory power. Contract and conditional zoning provide flexibility in making decisions concerning individual parcels of land, through negotiation between the developer and the planning

staff. Developers may be asked to make concessions to mitigate adverse impacts on nearby property owners and to reduce the demands created by the development on municipal services.

Contract and conditional zoning have been ruled invalid in North Carolina, as in the nature of spot zoning. Allred v. City of Raleigh, 277 N.C. 530, 178 S.E.2d 432 (1971). Amendments to the zoning ordinance designed to give preferential treatment to select landowners are referred to a "spot zoning" and are almost certainly struck down by the courts if they are challenged. The invalidity of spot zoning arises from isolating a select parcel for preferential treatment and relieving the parcel of restrictions to which surrounding property is subject. Blades v. City of Raleigh, 280 N.C. 531, 187 S.E.2d 35 (1972); Godfrey v. Union County Board of Commissioners, 61 N.C. App. 100, 300 S.E.2d 273 (1983). The North Carolina Court of Appeals has explained that rezoning must be effected by the exercise of legislative power rather than by special arrangements with the owners of a particular parcel of land. Rose v. Guilford County, 60 N.C. App 170, 298 S.E.2d 200 (1982). See also Brough, "Flexibility without Arbitrariness in the Zoning System: Observations on North Carolina Special Exception and Zoning Amendment Cases." 53 North Carolina Law Review 925 (1975).

h. Special Exception

The special exception, also called conditional use and special use, is one of the principal devices allowed in North Carolina which permits flexibility in a land use control system. It is employed in areas where certain activities are permissable but require special scrutiny to minimize the particular problems they may present. Generally, the special use is permitted as a matter of right within a given zone if the proposed development meets certain conditions and criteria. These criteria, which must be objectively stated in the ordinance, most often relate to the provision of municipal services or to the reduction of adverse environmental impacts. In re Ellis, 277 N.C. 419, 178 S.E.2d 77 (1970); Coastal Ready-Mix Concrete Company v. Board of Commissioners of the Town of Nags Head, 299 N.C. 620, 265 S.E.2d 379 (1980).

Authority for the use of special exceptions or conditional use permits is granted to municipalities in N.C.G.S. §160A-381 et seq. and to counties in §153A-340 et seq. This zoning tool is widely used and seems appropriate for regulating certain types of development which pose particular problems that cannot be provided for in a static zoning ordinance. This zoning technique is also useful in connection with interim development regulations as an effective and defensible approach to interim growth controls to allow time for decision making on permanent growth management regulations.

The North Carolina Supreme Court has upheld the use of special exception ordinances against an improper delegation of legislative authority challenge so long as specified conditions are met. The special exception ordinance is valid when the standards set forth in the ordinance are the basis for the decision of the board of adjustment and provide adequate standards for the delegation of legislative authority, and the process follows the applicable procedural safeguards. Humble Oil and Refining Company v. Board of Aldermen of Chapel Hill, 286 N.C. 170, 209 S.E.2d 477 (1974).

The special exception is entirely different from a variance, which is a departure from the terms of the zoning ordinance and is granted where enforcement of the terms of the ordinance would result in undue hardship. The special exception is a permitted use under the terms of the ordinance in contrast with a departure from the ordinance in the case of a variance. Jackson v. Guilford County Board of Adjustment, 2 N.C. App. 408, 163 S.E.2d 265 (1968), affirmed 275 N.C. 155, 166 S.E.2d 78 (1969).

Special use permits are distinguished from contract or conditional zoning in two ways; first, criteria that must be met before a special use permit is issued are expressly stated in the ordinance and apply equally to all property owners within a given zone. Second, special use permits require no concessions or commitments from the community. The applicant for the permit needs only to demonstrate that the proposed development meets the required conditions for the permit to be granted.

i. Bonus and Incentive Zoning

Bonus or incentive zoning allows developers to exceed limitations, usually height or density limitations, imposed by conventional zoning in exchange for developer-supplied amenities or concessions. For example, a builder may be permitted to exceed a height restriction if the developer provides open space adjacent to the proposed building. Bonus or incentive zoning is not explicitly permitted by North Carolina zoning enabling legislation. The legality of this zoning variation in North Carolina is uncertain, because of its resemblance to contract and conditional zoning.

Legal problems might arise for two reasons. First, when used without traditional zoning, incentive zoning deals primarily with density, and not use, in classifying land uses. There may be questions as to whether this is within existing enabling legislation. (Apparently no municipalities have used this tool without also using conventional zoning.) Secondly, if used in combination with traditional zoning, the technique might be attacked as unlawful contract zoning. On the other hand, incentive or bonus zoning is similar to dedication, and the use of dedication has been upheld when used as part of a subdivision regulation and in other contexts.

Incentive zoning will have a better chance of meeting constitutional requirements if it complements a rational underlying regulation and is a reasonable means of achieving a permissible government objective. Most of the purposes for which a local government would want to use incentive zoning are recognized as valid public purposes, but commentators disagree about the importance of the relationship between the amenity provided by the developer and the bonus allowed in return. For example, an incentive ordinance may allow a smaller lot size in subdivisions in return for more open space than is ordinarily required. There is an obvious relationship between allowing smaller lots and providing more open space. A more difficult situation arises when an ordinance allows smaller lots in return for the provision of an amenity such as bikeways. It may be that incentive ordinances for non-controversial purposes are not likely to be challenged, and perhaps even a tenuous relationship between the amenity and the bonus will justify the ordinance.

j. Floating Zones

Floating zones are shown in the text of the zoning ordinance but not on the zoning map. This technique may be used when the local government recognizes that a particular activity is desired for a general area, but the specific site has not been located in advance. The floating zone may be applied to a site upon application if the conditions in the ordinance are met. Thus a floating zone is described in the zoning ordinance and waits to be affixed to a particular parcel of land which meets the conditions. Uses typically designated in floating zones include shopping centers, light industry and mobile home parks.

Floating zones are not explicitly authorized by enabling legislation in North Carolina. A floating zone ordinance may have legal difficulties as a form of spot zoning. The North Carolina Supreme Court has defined spot zoning as arising "where a small area, usually a single lot or a few lots, surrounded by other property of similar nature, is placed arbitrarily in a different use zone from that to which surrounding property is made subject." Zophi v. City of Wilmington, 273 N.C. 430, 160 S.E.2d 325 (1968).

Conversely, legal problems with the floating zone concept may be avoided if it is viewed as a form of a special exception, with more detailed requirements and conditions to be met before the use is permitted. Rogers v. Village of Tarrytown, 302 N.Y. 115, 96 N.E.2d 731 (1951).

k. Performance Zoning

Performance zoning sets standards for each zone based on permissible effects of a development rather than specifically enumerating the types of uses, dimensions, or densities

permitted. If the prescribed standards are met, any use is allowed in the zone. This technique has been extensively used in industrial zoning to set standards on noise, dust, emissions, and glare. More recently, the technique has been used in broader applications, with standards keyed to demands on public services such as water supply, waste water treatment, and roads. Application may involve protection of the environment by specifying maximum levels of permissible stress on natural systems. For example, a community may specify the amount of permissible runoff in a given zone, and any use would have to meet that standard before development could take place. Performance controls for sensitive lands may work as a system to protect natural processes in environmentally sensitive areas, such as aquifers, wetlands, floodplains, and shorelands. Performance controls are most often used in conjunction with traditional zoning ordinances, or as an overlay to the conventional zones.

The power to zone by the use of performance standards is not explicitly granted in North Carolina enabling legislation, and no court decisions expressly address the validity of the technique. The North Carolina Supreme Court has, however, upheld the use of performance standards in a municipal floodplain ordinance against taking and equal protection challenges. Responsible Citizens in Opposition to the Flood Plain Ordinance v. City of Asheville, 308 N.C. 255, 302 S.E.2d 204 (1983). It seems that performance standards, if rationally devised and consistently applied, could qualify as a comprehensive plan, and zoning in conformance with those standards could be upheld under the broad grant of zoning authority.

1. Planned Unit Development (PUD) and Cluster or Average Density Zoning

Planned unit development and cluster or average density zoning combine elements of zoning and subdivision regulation in permitting flexible design of large and small-scale developments which are planned and built as a unit. Specific plans for the development are required in advance, and must be approved by the administrative body. This concept eliminates the lot-by-lot approach common to zoning and subdivision regulation and can be used as an incentive for better development by enabling complete development proposals to be planned and approved.

In its simplest form, planned unit development takes the shape of cluster development. An example might involve a developer with 100 acres of land which he could divide into 400 quarter-acre lots according to existing local ordinances. Cluster zoning would give the developer the alternative of clustering units closer together in one part of the site, provided that the overall number of units does not exceed 400. The open space saved by clustering is left for the common use of the residents. From this simple "density transfer," planned unit development builds into complex forms. In its most advanced stage, planned unit

development allows a variety of housing types as well as commercial, agricultural and industrial uses.

Typically, developers are permitted to develop under PUD provisions when the proposed development exceeds a minimum specified number of acres or housing units. Planned unit developments are usually subject to zoning ordinances, although they are not actually mapped, and must therefore comply with the use restrictions within the zones where they occur. Increasingly, however, some mixing of uses and increases in density are permitted.

The PUD technique provides flexibility because the final design is a matter of negotiation between the developers and the planning authorities. PUDs are generally attractive to developers of large tracts of land. Planned unit development projects can be provided with urban services and facilities more economically than conventional development. They also allow environmental protection of sensitive areas while allowing residential and commercial development.

Planned unit development ordinances are not specifically authorized by enabling legislation in North Carolina, nor has their validity been tested in the courts. The use of this technique would probably be upheld as an extension of the special exception procedure, which is permissible under the existing enabling legislation. Most recent decisions in other jurisdictions have upheld the validity of such ordinances. Many North Carolina municipalities have such ordinances, and specific enabling legislation would remove doubt as to their validity. See Patterson, "Planned Unit Development and North Carolina Enabling Legislation," 51 North Carolina Law Review 1455 (1973).

m. Subdivision Regulations

Subdivision regulations control the process of converting raw land into building sites. They can establish effective requirements and standards for public improvements, including streets, drainage pipes, sewer outlets, and so forth. These standards may be enforced by requiring the developers to post performance bonds.

Dedications of a specified amount of land (usually for parks or schools) or money in lieu of land force the developer of the subdivision to provide for needs generated by the subdivision. When the developer is allowed to pay in cash instead of in land, the community is given additional flexibility in meeting the needs of the subdivision. If, for example, a good park site is not available on the land owned by a developer, the cash contribution can allow the local government to purchase a nearby park site for the neighborhood.

Standards have recently been broadened in scope, and a subdivision plan may be refused approval where there is a fair or substantial showing that the subdivision will cause undesirable off-site problems such as creating hazards, environmental degradation or increasing the burden on already overloaded public facilities, such as roads and sewers. In this newer form, subdivision regulations can facilitate orderly municipal growth in accordance with a comprehensive plan by controlling the sequence and time of development. Subdivision controls relating to off-site facilities are covered in a separate section.

The authority to regulate subdivisions is granted to both municipalities and counties. Both are authorized, among other forms of regulation, to require dedication or reservation of recreation areas adequate to serve the residents of the immediate neighborhood within the subdivision. N.C.G.S. §160A-371 et seq. (cities); N.C.G.S. §153A-330 et seq. (counties).

n. Subdivision Regulations Relating to Off-Site Facilities

This type of ordinace requires that there be adequate off-site facilities available, such as parks, fire protection and police protection, before a subdivision will be approved. The purpose of the ordinance is to make sure that development takes place only if there are adequate facilities to support the development. This tool is to be distinguished from traditional subdivision regulations which have as their purpose the assurance that the city will not have to bear the burden of providing adequate infrastructure on the site of the development, such as water and sewer conduits, a road system matching city standards, and dedication of land for parks and school sites.

Subdivision regulations which take into account off-site facilities recognize that new development requires more services than those which are on-site. These regulations protect the revenues of the municipality and force the development to carry its own financial burden. They also promote development in areas where there can be orderly and efficient extensions of municipal services and where major expenditures for new roads, schools, and other public facilities are not required.

The state enabling legislation for subdivision regulation by municipal and county governments recognizes as legitimate objects of regulation the provision of community service facilities, the dedication of parks and recreational areas, and the reservation of school sites. Legitimate goals of subdivision regulations are the provision of orderly growth and development of the city and the more orderly development of subdivisions. It seems apparent that a city or county has the authority to condition its subdivision permits on the provision of off-site facilities.

o. Population Caps

Total population caps attempt to establish absolute limits on permissible population, either by setting a numerical limit on population or on the permissible number of housing units. Such ordinances have been found to be constitutionally deficient as a violation of state and federal due process. Boca Raton, Florida passed a charter amendment limiting the total nunmber of dwelling units within the city, which was invalidated as having no rational relationship to a permissible municipal objective. City of Boca Raton v. Boca Villas Corp., 371 So.2d 154 (Fla. App. 1979), cert. denied, 381 So.2d 765 (1980). It is highly unlikely that such an ordinance would survive judicial scrutiny in North Carolina unless some dire circumstances were tightly documented.

p. Official Mapping

An official map is a map, legislatively adopted, which reflects a municipality's decision to locate streets, parks, and other facilities at the places marked on the map and to acquire the property for the facilities. The map is implemented by a prohibition against improvements in areas earmarked for acquisition and may be enforced by injunctive relief and denial of the rights to compensation for unauthorized improvements. The systems generally have a variance procedure. This technique can significantly reduce a municipality's expenditure for land acquisition.

North Carolina enabling legislation does not expressly authorize the use of official mapping; however, the use of mapping and land reservation is authorized in conjunction with subdivision regulation for school sites. N.C.G.S. §160A-372 (cities); N.C.G.S. §153A-331 (counties).

q. Maximum Lot Size

A municipality can require that some or all of its residential land be subject to a maximum permissible lot size. The purpose of this technique is to keep lot sizes relatively small so that, theoretically, the homes built on them will be of low or moderate cost and will be serviced by public infrastructure at less cost to the municipality. Authority to require maximum lot sizes exists in North Carolina under the state's zoning enabling legislation. A maximum lot size requirement may feasibly be tied in with a subdivision ordinance, requiring new subdivisions to include a percentage of lots which do not exceed the statutory maximum.

r. Building Inspection

All North Carolina cities are authorized to have a building inspection department and must appoint building

inspectors, electrical inspectors, plumbing inspectors, and other inspectors as appropriate to enforce state and local laws relating to the construction and maintenance of buildings and other structures. N.C.G.S. §160A-412. Counties also are authorized to establish building inspection departments, and must provide for the enforcement of the Code. N.C.G.S. §153A-350 et seq.

The North Carolina Building Code Council is authorized to establish a North Carolina State Building Code, which has the force of law and must be complied with by all localities having a building inspection program. N.C.G.S. §143-138. The Building Code Council is also responsible for making changes in the State Building Code and for reviewing building laws. The Division of Engineering of the Department of Insurance is responsible for enforcing the State Building Code.

The North Carolina State Building Code has the force of law. Drum v. Bisaner, 252 N.C. 305, 113 S.E.2d 560 (1969). Localities may not impose stricter standards unless they are approved by the State Building Code Council. Greene v. City of Winston-Salem, 287 N.C. 66, 213 S.E.2d 231 (1975).

s. Annual Permit Limits

Annual permit limits may be used to limit population growth and construction by setting an absolute quota on the number of building permits that are issued by a city of county. A similar, although not so rigid approach, is to dictate stringent conditions which must be met before a permit will be issued.

North Carolina's building laws set various standards for structures in pursuance of the public health, safety, and general welfare. Absolute limitations on the number of permits, however, are not mentioned in the building code enabling legislation. The issuance of a building permit is conditional upon compliance not only with the state building code, but with all applicable local laws such as the local zoning regulations. N.C.G.S. §160A-417. Local regulations may not modify the state building code, which governs construction standards. The enabling statutes do not state how stringent the conditions set by local government for permit issuance may be, with respect to the provision of public services and the protection of the environment and neighboring property owners.

No communities in North carolina have enacted annual permit limitations. A few communities, including Petaluma, California, in other states, have enacted annual building permit limits. The Petaluma ordinance was upheld in Construction Industry Association of Sonoma County v. City of Petaluma, 522 F.2d 897 (9th Cir. 1975), cert. denied 424 U.S. 934 (1976).

t. Regulation of Mobile Homes

There are several ways to regulate mobile homes, including licensing, inspection, taxation, and zoning. Uniform standards regarding the construction and sale of mobile homes are contained in N.C.G.S. §143-144 et seq. and rules promulgated by the Building Code Council thereunder. Local building inspectors are charged with enforcement of these rules.

The authority to regulate mobile homes stems from the North Carolina zoning enabling legislation and from legislation granting counties and cities the power to enact ordinances which protect the general health and safety. N.C.G.S. §153A-121 (counties) and §160A-174 (municipalities). Mobile homes are sufficiently different from other types of housing that there is a rational basis for placing different requirements upon them. Currituck County v. Willey, 46 N.C. App. 835, 266 S.E.2d 52, review denied 301 N.C. 234, 283 S.E.2d 131 (1980). Mobile homes however may not be prohibited from a city. Town of Conover v. Jolly, 277 N.C. 439, 177 S.E.2d 879 (1979). They may be restricted to mobile home parks. City of Asheboro v. Auman, 26 N.C. App. 87, 214 S.E.2d 621 cert. denied 288 N.C. 239, 217 S.E.2d 663 (1975); Duggins v. Town of Walnut Cove, 63 N.C. App. 684, 306 S.E.2d 186 (1983).

u. Local Environmental Impact Ordinances

The North Carolina Environmental Policy Act of 1971 enables North Carolina localities to require detailed environmental impact statements from developers of "major development projects." N.C.G.S. §113A-8 to 10. Like the federal and state environmental impact statement requirements, local environmental statements generally require a discussion of the environmental impacts of the proposed development, of measures to mitigate adverse environmental effects, of alternatives to the proposed actions, of relationships between short-term uses of the environment and long-term productivity and of irreversible environmental changes. The purpose of such a statement is to give localities the authority to encourage environmentally sound land use patterns by requiring developers to account for environmental values in project design and site layout. Despite the potential for improving land use decision making and involving the public in the development process inherent in this requirement, the enabling legislation for local environmental impact statements has been largely ignored in North Carolina.