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Legislative and Institutional Framework to Control Pollution from Land Use Activities in the United States Great Lakes Basin: Volume 3 States of New York, Ohio, Pennsylvania, and Wisconsin

Linton And Company Incorporated

Eric Schweitzer

Barbara Roth

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**INTERNATIONAL REFERENCE GROUP
ON GREAT LAKES POLLUTION
FROM LAND USE ACTIVITIES**

001571

GLC 22... IJC.91
779026 ENG
(2 copies)



**INTERNATIONAL
JOINT
COMMISSION**

**THE LEGISLATIVE AND INSTITUTIONAL FRAMEWORK
TO CONTROL POLLUTION FROM LAND USE ACTIVITIES
IN THE UNITED STATES GREAT LAKES BASIN**

**VOLUME III -States Of New York, Ohio, Pennsylvania
And Wisconsin**

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THE LEGISLATIVE AND INSTITUTIONAL FRAMEWORK
TO CONTROL POLLUTION FROM LAND USE ACTIVITIES IN
THE UNITED STATES GREAT LAKES BASIN

THE STATE OF NEW YORK

PREPARED BY
ERIC SCHWEITZER
BARBARA ROTH

LINTON & CO., INC.
WASHINGTON, D.C.

IN SUBCONTRACT TO
GREAT LAKES BASIN COMMISSION
ANN ARBOR, MICHIGAN

To be used as a portion of the technical reports
of the International Reference Group on
GREAT LAKES POLLUTION FROM LAND USE ACTIVITIES
of the International Joint Commission --
Prepared in partial fulfillment of the
U. S. Environmental Protection Agency
Contract No. 68-01-1598
with the Great Lakes Basin Commission

October 1977

ACKNOWLEDGEMENTS

This report was prepared by Linton & Company, Inc. under contract to the Great Lakes Basin Commission. Linton & Company would like to acknowledge the assistance of the following individuals in the preparation of this report:

Dr. Theodore Hullar, New York Department of Environmental Conservation
Mr. Thomas Male, New York Department of Environmental Conservation
Mr. Theodore Fedak, New York Department of Environmental Conservation
Mr. William Morton, New York Department of Environmental Conservation
Mr. William Gault, New York Department of Environmental Conservation
Mr. Barton Zeh, New York Department of Environmental Conservation
Mr. N.G. Kaul, New York Department of Environmental Conservation
Mr. Wilkie, New York Department of Environmental Conservation
Mr. John Dragonotti, New York Department of Environmental Conservation
Mr. Charles Frommer, New York Department of Environmental Conservation
Mr. Allen Davis, New York Department of Environmental Conservation
Mr. Louis Concora, Jr., New York Department of Environmental Conservation
Mr. Anthony Voell, Erie County Department of Environmental Quality

This study was carried out as part of the Task A activities of the Pollution from Land Use Activities Reference Group, an organization of the International Joint Commission, established under the Canada/United States Great Lakes Water Quality Agreement of 1972. The Technical Representative for the study was Eugene A. Jarecki, Great Lakes Basin Commission. Findings and conclusions are those of the authors Eric Schweitzer and Barbara Roth, Linton & Company and do not necessarily reflect the views of the Reference Group or its recommendations to the Commission.

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PART I

PROBLEMS, CURRENT ACTIVITY, EVALUATION

INTRODUCTION

1.1 TERMS

On April 25, 1972, the governments of Canada and the United States signed the Great Lakes Water Quality Agreement. As an integral part of this agreement, the International Joint Commission was asked to establish a Reference Group to study pollution in the Great Lakes system from agriculture, forestry, and other land uses.

Subsequently, the eighteen-member Pollution From Land Use Activities Reference Group was formed with an equal number of Canadian and United States members to answer the following three questions:

- (1) Are the boundary waters of the Great Lakes System being polluted by land drainage (including ground and surface runoff and sediments) from agriculture, forestry, urban and industrial land development, recreational and park land development, utility and transportation systems and natural sources?
- (2) If the answer to the foregoing question is in the affirmative, in what extent, by what causes, and in what locations is the pollution taking place?
- (3) If the Commission should find that pollution of the character just referred to is taking place, what remedial measures would, in its judgment, be most practicable; and what would be the probable cost thereof?

In order to provide an adequate response to this last question, the Reference Group proposed a series of studies to define all those remedial measures necessary to the solution of the problem areas identified.

This study is specifically addressed to the review and the evaluation of the existing legal and regulatory framework available for controlling pollution from land use activities.

PART I

PROBLEMS, CURRENT ACTIVITY, EVALUATION

CHAPTER 1

INTRODUCTION

1.1 GENERAL

On April 15, 1972, the governments of Canada and the United States signed the Great Lakes Water Quality Agreement. As an integral part of this agreement, the International Joint Commission was asked to establish a Reference Group to study pollution in the Great Lakes system from agriculture, forestry, and other land uses.

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- (2) If the answer to the foregoing question is in the affirmative, to what extent, by what causes, and in what localities is the pollution taking place?
- (3) If the Commission should find that pollution of the character just referred to is taking place, what remedial measures would, in its judgement, be most practicable; and what would be the probable cost thereof?

In order to provide an adequate response to this last question, the Reference Group proposed a series of studies to define all those remedial measures pertinent to the solution of the problem areas identified.

This study is specifically addressed to the review and the evaluation of the existing legislative/regulatory framework available for controlling pollution from land use activities.

Canada and the United States are jointly undertaking this study. They have asked the study participants to provide information on the following tasks:

- (1) Describe the content of the existing legislation/regulation framework available at each level of government (Federal, State, Special Purpose District, County and Municipal) for controlling the non-point discharges of sediments, nutrients, pesticides, and chemicals associated with the following land use categories:

	<u>Priority Rating</u>
(a) Urban Areas	H
(b) Transportation Corridors	M
(c) Extractive Operations	L
(d) Agriculture	H
(e) Recreational Areas	L
(f) Forested Areas	L
(g) Liquid, Solid and Deepwell Disposal Areas	H
(h) Shoreline Landfilling Activities	M
(i) Lakeshore and Riverbank Erosion	L

Special reference should be made to the provisions made at the local level for controlling these potential diffuse sources of pollution.

- (2) Describe the extent of the regulatory power, the commitment to develop and undertake programs and the degree of enforcement practiced at each of the specified levels of government relative to pollution from land use activities.
- (3) Identify other relevant government and non-governmental programs and policies which would have an indirect bearing on the control of pollution from land use activities (i.e., sediments, nutrients, pesticides and chemicals).
- (4) Identify those land use categories for which the four major pollutants (sediments, nutrients, pesticides and chemicals) are least controlled.
- (5) In terms of the present jurisdictional framework (i.e., State and County), outline what possibilities for future action are available to each level of government. This would include an analysis of the constitutional limitations operating at each level of government and the potential of the existing legislative/regulatory framework for controlling non-point sources of pollution.
- (6) Describe the alternatives for the future evolution of this legislative/regulatory framework based on discussions with those persons actively working with the present framework.

- (7) Coordination between the Canadian contractors and the United States to develop a standardized format for comparing the legislative and regulatory approaches taken in each country.

This report addresses these tasks and presents the findings of the legislative review and interviews with State and local officials.

The part is divided into four chapters. Chapter 1 is this "Introduction." Chapter 2, "Definitions and Methodology," presents the definitions of land use activities for which control is needed, the types of pollution controls that are the components of a legislative framework and the methodology for the analysis. Chapter 3, "Institutional and Legislative Framework," presents the legislative framework for non-point pollution control and the institutional structure for each state. This Chapter includes a discussion of how each land use activity is currently controlled, how much it contributes to non-point source pollution, and the strengths and weaknesses of the current legislation. The final Chapter, "Future Actions," identifies actions that may be taken in the future. The comparative analysis of the different states in the Great Lakes Basin will identify alternatives that could be implemented through legislative changes.

CHAPTER 2

DEFINITIONS AND METHODOLOGY

2.1 GENERAL

This Chapter is divided into three sections, which present the definitions of the land use activities, the control components, and a summary of the methodology used to develop this report. The land use activities used are those that PLUARG has found may cause non-point pollution and are presented in priority of concern as identified by PLUARG. The control components are compatible with those used in the legislative report for the Canadian side of the Great Lakes Basin. The methodology is divided into three steps -- data collection, analysis, and evaluation and identification of future actions -- with the component parts of each step summarized.

2.2 LAND USE ACTIVITIES

The Reference Group has identified the land use activities which may contribute to pollution. The activities are grouped into land use categories, and the priority of concern is identified.¹

- (1) Urban Areas -- high priority. This category has two land use activities -- site runoff from construction activities and stormwater runoff. These areas are the densely settled, built-up areas generally including those economic activities requiring the concentration of firms and the work force.
- (2) Agriculture -- high priority. This category has five land use activities -- application of pesticides, application of fertilizers, feedlot operations, erosion from general farm practices, and drainage. An agricultural area is defined as those lands including structures actively committed to the production of food and fibre.
- (3) Liquid, Solid and Deepwell Waste Disposal Areas -- high priority. There are three land use activities -- solid waste, liquid sludge, and private sewage disposal. This category includes those areas used for landfills, land application of wastewater effluents and the injecting of wastes into subsurface geological formations.

- (4) Transportation Corridors -- medium priority. One land use activity is considered -- runoff from construction, maintenance and use of transportation facilities. These facilities include highways and roads, airports, railroads, and utility corridors.
- (5) Shoreline Landfilling Activities -- medium priority. This category has two land use activities -- land or construction excavations and dredging. There is no definition as to the distance from the water's edge in which controls should be enforced.
- (6) Extractive Operations -- low priority. Three land use activities have been identified -- pits and quarries, mining, and the disposal of brines from oil and gas operations. The land areas covered are those taken by the removal and primary processing of materials from either bedrock or surface deposits.
- (7) Recreation Areas -- low priority. Three land use activities have been identified -- runoff related to specific recreational activities, pesticide use and private waste disposal. This category includes public and private lands designated for recreational use.
- (8) Forested Areas -- low priority. Four land use activities have been identified as sources of pollution -- timber production, woodland grazing, wildlife management and recreation.

2.3 CONTROL COMPONENTS

Research by the contractor and the Canadian contractors has identified six control components which can be applied in different combinations and to different degrees in controlling land use activities which have the potential of causing non-point pollution in a specific area. The components identified are:²

- PC - Direct Pollution Control -- where a specific activity is controlled by law or regulation through preventive or reactive means. Preventive control is where a proposed or continuing activity must receive approval from a designated agency prior to the implementation, or at periodic intervals. Reactive control is where an activity may proceed without prior approval, but is subject to control retroactivity if standards are violated. An example of a preventive control is requiring a permit for activities within a specific distance from a lake or stream. A reactive control is the fining of a governmental highway department for a fish kill that resulted from inadequate control of runoff from a road construction project.
- P - Planning -- where a plan of a specific activity must be submitted prior to implementation of the activity, or where a local or State agency develops a general or specific plan, including water quality considerations, which must be followed in approving and/or implementing specific

actions. Examples of this would be a site plan showing the stormwater and site runoff control measures to be employed during and after development and a comprehensive land use plan for a locality.

- OS - Indirect Control -- where an act or regulation has been implemented for another major purpose, but will have an indirect impact on controlling non-point pollution. An example of this type of control is the review and licensing of sanitary landfill operators to insure that the landfill does not become a health hazard.
- NS - Non-Statutory Control -- programs that are not in direct response to a legislative mandate, but which are designed to reduce pollution. This includes educational and citizen participation programs and technical assistance provided to various client groups. An example is the soil conservation courses of an agricultural extension agent or a State agency assisting a locality in developing a comprehensive plan.
- MP - Management of Public Lands -- the guidelines adopted by a public agency on how it will maintain the lands that it owns. This also includes how the agency views its responsibilities in responding to the controls of other public agencies. An example is the method of right-of-way maintenance practiced by a department of transportation and its response to sedimentation controls imposed by a pollution control agency.
- F - Fiscal Incentives or Disincentives -- where public agencies provide monetary incentives to other public agencies or private groups or individuals to assist in the implementation of pollution abatement programs. A disincentive is where costs are imposed without assistance or an activity requires payment of an additional tax. An example of an incentive is the agricultural cost sharing program, while a disincentive is the higher taxing of an individual who does not provide adequate drainage on his land.

2.4 METHODOLOGY

The methodology used in preparing this report is designed to address three major objectives:

- first, to present the salient points of the legislation that control non-point sources of pollution;
- second, to present a summary of the institutional structure in the State and identify the key actors in controlling pollution; and
- third, to provide an evaluation of the legislation and its implementation and to identify future actions which are anticipated at this time.

The meeting of these objectives is accomplished through a multi-phased process. An Initial Inventory of Legislation and a questionnaire requesting information on a magnitude of problems and the degree of implementation were prepared and sent to appropriate State and, where necessary, local officials. The answers, comments and additional information received form the basis for writing a description of the institutional structure, problems and current activities of each State and the Federal government. These descriptions provide the basis for the development of evaluation questions which are used in the interviews of Federal, State or local officials.

Interviews were conducted with the State PLUARG representative and additional State and local officials involved in implementing and enforcing the legislation and regulations. Information from the interviews is used to update the previously written drafts and to evaluate the legislative framework. The resulting Draft Report is reviewed by GLBC, the people interviewed, and PLUARG Task A Committee members to verify data and the analysis. The comments received are incorporated into a Final Report.

The remaining sections of this report are organized so the objectives are clearly addressed. Chapter 3 is a summary of the institutional structure and legislative framework. The legislative framework is divided into the land use activities with each discussed in terms of magnitude of problem, current activities, and evaluation of those activities. Chapter 4 is an analysis of the legislative framework, and the conclusions drawn by the contractor.

The second half of the report, Part II, is an identification of the salient point of the legislation that controls non-point sources of pollution. It is the objective of this part to provide the user with additional information on the specific pieces of legislation so that the transfer of the salient points between political jurisdictions can be facilitated.

FOOTNOTES -- CHAPTER 2

- 1 International Reference Group on Great Lakes Pollution from Land Use Activities, Detailed Study Plan Supplement, August 1976, International Joint Commission, p. 8. (Also see "Summary Review of Pollution from Land Use Activities" for a more detailed description.)
- 2 Castrilli, J.F., Pollution from Land Use Activities Reference Group: Legislative Study Interim Report No. 1, Urban Areas, Canadian Environmental Law Research Foundation, May 1976. Supplemented a Task A Committee meeting June 15, 1977, Detroit, Michigan, and letter of July 26, 1977 by G. Bangay, Coordinator, Land Drainage Studies, Environmental Protection Service, Canada Center for Inland Waters, Burlington, Ontario.

CHAPTER 3

INSTITUTIONAL AND LEGISLATIVE FRAMEWORK

3.1 GENERAL

This Chapter presents the institutional structure and the legislative framework for non point pollution control in the State of New York. The institutions involved in non point pollution control are identified, and brief descriptions of the key institutions are presented.

The second section presents the legislative framework in matrix form, followed by a discussion of the magnitude of the problem, current controls, and evaluation of the controls and their implementation.

3.2 INSTITUTIONAL STRUCTURE

Pollution control responsibilities in New York are shared between different State and Substate agencies. Table I presents those agencies for each level of government.

TABLE I

AGENCIES WITH NON-POINT POLLUTION CONTROL RESPONSIBILITIES

<u>STATE</u>	<u>SUBSTATE</u>
Department of Environmental Conservation	County Environmental Management Council
State Soil and Water Conservation Committee	Local Environmental Conservation Districts
Department of Agriculture and Markets	Regional Planning and Development Boards
Economic Development Board	Regional Water Resources Planning Board
Department of Transportation	Counties
Office of Parks and Recreation	Cities
Department of State	Villages
Department of Commerce	Towns
Department of Health	
Council of Agricultural Advisors	
Agriculture Resources Commission	

A description of the key State and all Substate governmental units follows.

3.2.1 Department of Environmental Conservation

The Department of Environmental Conservation is the central agency for coordinating all the environmental programs in the State. Figure 1 presents the organization of the Department.

The environmental programs within the Department are the responsibility of three offices:

PROGRAM DIVISIONS

- Pure Waters
- Solid Waste Management
- Air Resources
- Fish and Wildlife
- Land Resources and Forest Management
- Marine Resources

ENVIRONMENTAL ANALYSIS AND PERMITS

- Project Review and Permits
- Radiation
- Energy

REGIONAL OPERATIONS

- 9 Regions
- 4 Other Units

The individual responsibilities of the major environmental programs are as follows:

3.2.1.1 The Division of Land Resources and Forest Management

The Division of Land Resources and Forest Management coordinates the development and implementation of programs that protect, enhance and manage land and forest resources of the State. The Division also fosters improved land use concepts and procedures and monitors those activities with a potential to cause significant impact on land use.

The Resources Program Development Subdivision conducts multi-disciplinary resources program development activities in support of State policy. The Water Management Bureau is responsible for continuing water management planning for immediate and long-range guidance of the water pollution control programs. Development of policy and programs for land resources and related matters is the function of the Land Resources Development Bureau. Responsibility for reservoir releases program and management of resources of river basins rests with the Reservoir Releases and Basin Management Bureau. The organization and direction of studies for Federal related resources development, such as the Hudson River Level B and flood insurance, are responsibilities of the Subdivision.

Programs for cooperative forestry, forest tax law, management of State forest lands and forest preserve (including recreation facilities, fire control, insect and disease control) and forest acquisition programs are administered by the Forest Resources Subdivision. The subdivision is comprised of the following bureaus: Forest Resource Management, Forest Protection and Fire Management, Forest Administration, and Forest Resources Planning and Analysis.

The Land Resources Management Subdivision administers regulatory programs for oil and gas production, reclamation of mined land, radioactive waste disposal, pesticides, and noise control.

3.2.1.2 The Division of Pure Waters

The Division administers all facilities planning and design programs for wastewater collection and treatment. It also conducts water quality monitoring, and issues discharge permits.

3.2.1.3 Division of Air Resources

The Division conducts all activities and programs relating to air pollution control.

3.2.1.4 Division of Fish and Wildlife

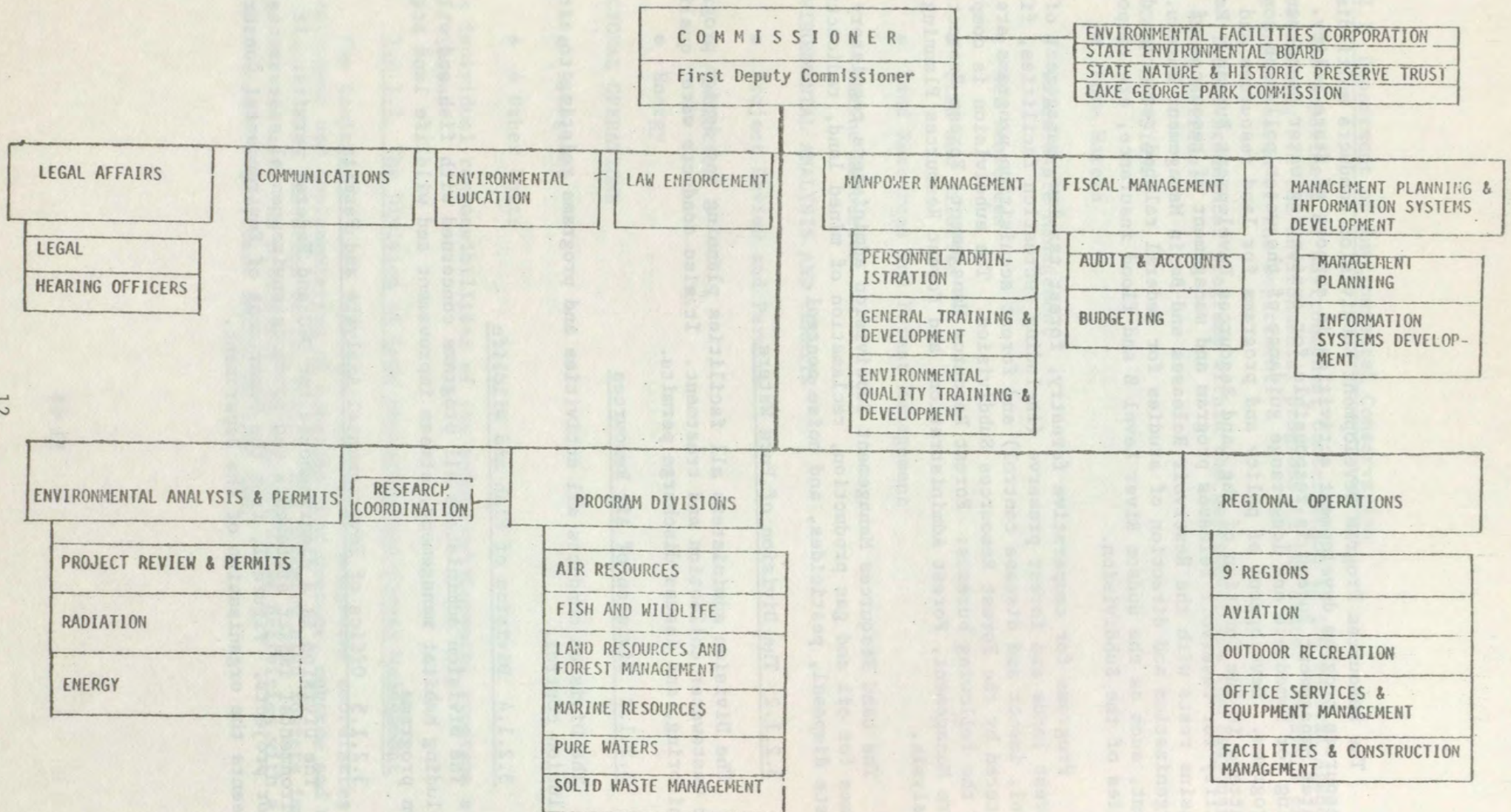
The Division administers all programs concerned with fish and wildlife, including habitat management, stream improvement and wildlife land acquisition programs.

3.2.1.5 Office of Environmental Analysis and Permits

The Division is a clearinghouse for DEC and Federal permits. It reviews environmental impact statements and conducts environmental assessments of major projects. Figure 1, from the Department of Environmental Conservation, presents the organization of the Department.

FIGURE I

New York State Department of Environmental Conservation



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September 20, 1977

SOURCE: Department of Environmental Conservation

3.2.2 Division of Educational Services

Programs for increasing citizen understanding, support and involvement in land resources management are developed and administered by the Division. It provides technical assistance to local conservation commissions and county environmental management councils, and administers State aid to these agencies.

3.2.3 State Soil and Water Conservation Committee

The State Soil and Water Conservation Committee serves as a coordinating and policy body for individual soil and water conservation districts (in 57 counties). These districts, whose boards are comprised of local farm owners principally, are the primary agent for initiating and implementing USDA-sponsored conservation programs in rural and suburban areas. While the districts are funded through other channels, the Committee is the major governing entity which oversees their activities. Districts aid in developing and implementing farm conservation plans and watershed work plans. Future directions are away from individual farm plans toward watershed and community-wide planning and project implementation.¹

3.2.4 Department of Agriculture and Markets

The Department of Agriculture and Markets provides a broad range of inspection and regulatory services to the agriculture industry and promotes the development of agriculture in the State. The Department also acts in an advisory role in DEC programs that affect farms and their operation. The Department provides financial support to staff members on the State Soil and Water Conservation Committee.

3.2.5 Economic Development Board

The Economic Development Board is in the Executive Department. The Board was created to oversee and coordinate economic development planning and research activities in the State and to act as the State's economic planning agency. The New York State Economic Development Board consists of the Commissioners of the Departments of Commerce, Labor, Environmental Conservation, Transportation and Agriculture and Markets and the Director of the Budget, the Secretary of State and such members as are appointed by the Governor. The staff of the Board has initiated economic studies for the State that have served as the focal point for economic policies of the State.²

3.2.6 Department of Transportation

The Department of Transportation is responsible for coordinating and developing balanced transportation policies and planning for the State, administering a public safety program for rail and motor carriers in intra-state commerce, and directing State regulation of such carriers in the public interest in matters of rates and service.³

3.2.7 Office of Parks and Recreation

The New York State Office of Parks and Recreation (OPR) is responsible for the administration of a total park and recreation system and the operation of State parks, parkways, historic sites, and marine programs and facilities. There are 11 regional commissions under the jurisdiction of the Office which operate 144 parks. The OPR has the authority to acquire land and develop, preserve, manage, maintain and operate properties. Currently, the Office holds 178 different properties, many of them in the coastal zone areas, ranging from natural and historic preservation areas to areas developed for intensive recreation. The Office's authority is enforced through the State Park and Parkway Police and through the administration of the Recreational Vehicles and Navigation Laws with respect to vessels operating within State waters.⁴

3.2.8 Department of State

The Department of State has several functions. In the local government area, the Department coordinates activities, resources, and procedures of State government to provide more effective service to the approximately 1,600 municipalities in the State. The Department also serves as a clearinghouse for information concerning various types of assistance to local governments. In addition, the Department of State is considered the official State planning agency for all purposes in Sections 701 and 703 of the Federal Housing Act of 1965.

The Department is also the lead agency in administering the State's Coastal Zone Management Program. The Department of Environmental Conservation is a major contractor and provides technical assistance for designated aspects of the Coastal Zone Management Program.⁵

3.2.9 Department of Commerce

The Department of Commerce was created to promote economic development in the State by attracting new industry and maintaining current industrial and commercial activities. The Department is responsible for administering the State Commerce Law, promoting business and industry, and research and compilation of statistical data on the State economy. With regard to water quality activities, the Department can provide needed data and expertise on the economic benefits of various alternative policy strategies.⁶

3.2.10 Department of Health

The Department of Health's primary responsibility in the water quality area is the regulation of septic fields in single family homes, multiple residences, and commercial and industrial buildings. The Department works closely with county and local health departments in enforcing the regulation.

3.2.11 Council of Agricultural Advisors to the Commissioner of Environmental Conservation

The Council is an advisory body to the Commissioner of Environmental Conservation in matters relating to agriculture, primarily in the area of environmental quality. The Council meets bi-monthly or quarterly and considers a range of items. It has produced a manure management manual (two editions), and is to start work in the area of non point source pollution and runoff (Till's bill). It would like to produce in the future, guidelines for farm construction listing permits required and regulations affecting the environment.

One of the issues currently in the council is their concern for the legislative mandate to EPA to come up with non point source and runoff controls. Another issue to be investigated is rural land use vis a vis tax policy, that is, preservation of the current use of the land rather than the best (most profitable) use.⁷

3.2.12 Agricultural Resources Commission

As recommended in 1968 by the temporary study commission on Preservation of Agricultural Land, the Legislature, in 1971, established the Agricultural Resources Commission. The Commission was created as a 9-man body and was increased to 15 during the 1973 legislative session. The Commissioner of Environmental Conservation is a member.

The functions, powers and duties of the Commission are: (1) to advise the Governor and the Commissioner of Agriculture and Markets on policies and planning for strengthening agricultural progress in the State; (2) to create a sound balance between the economies of urban and agricultural areas; (3) to encourage public and private institutions to provide technological regulations and educational support necessary to maintain a vital agricultural economy; (4) to assist Office of Planning Services and Department of Environmental Conservation in relationship to harmonizing demands placed on land by urban growth with the goal of maintaining and preserving land for agricultural use; (5) maintaining a quality environment for agriculture; and (6) improving relations between farm and non-farm users of land.⁸

The Commission meets ten times a year to discuss and review aspects of farming and to develop recommendations that strengthen the farming operation.

3.2.13 Environmental Facilities Corporation

This agency is a non-profit corporation which was created by the State Legislature in 1967. It works side by side with the Department of Environmental Conservation in helping communities abate air, water and land pollution.

EFC does not enforce pollution rules and regulations; that is a regulatory function of the Department of Environmental Conservation. It does not

make State grants for construction of pollution control facilities; that is also a function of the Department.

EFC is an implementing agency -- a service unit available to municipalities wrestling with pollution problems. All EFC services are carried out under voluntary contracts with municipalities. EFC can plan, finance, construct, maintain and operate sewage treatment plants, resource recovery facilities, air pollution control facilities, storm water sewers and water supply and distribution facilities, exclusive of reservoirs. In short, EFC brings all of the necessary services under one umbrella, and it can do as much as its clients -- cities, towns, villages, counties, or groups of cities, towns, villages and counties -- want it to do in providing facilities to curb pollution.⁹

3.2.14 Special Purpose Districts

In New York there are three special purpose units of government which have the authority to control non point source pollution. They are:

- Agricultural Districts,
- County Environmental Councils,
- Soil and Water Conservation Districts.

3.2.14.1 Agricultural Districts

Agricultural Districts are established for the purpose of preserving viable agricultural land areas. There are 8.0 million acres of agricultural land with 5.0 million acres of what is considered prime farmland. One and two-tenths million acres of agricultural land have been placed in 35 agricultural districts, however, not all of the 1.2 acres represent prime farmland. Qualified farmers in the districts may apply for an exemption from taxation on the value of their land in excess of its value for farming. Under the Agriculture and Markets Law (the Act which authorizes the formation of Agricultural Districts) public agencies' authority to acquire farmland by eminent domain is modified. These agencies are required to consider alternative areas. In addition, local governments may not restrict or regulate farming operations.

The restrictions placed on non-farm operations within agricultural districts has helped slow down "leap frogging" character of land speculation which results in an overall pattern of urban sprawl.

3.2.14.2 Environmental Management Councils and Local Environmental Conservation Advisory Councils

Article 47 of the Environmental Conservation Law allows counties or regional bodies to establish Environmental Management Councils. The Councils are responsible for advising local governments on a full range of environmental issues and problems. The councils may engage in a range of activities

which include planning, program work or recommending legislative action to initiate new programs but all provide environmental advice to local governments. In some instances, the Councils may serve as a force for organizing citizen interest and mobilizing public opinion on the environment. Many Councils provide clearinghouse services. All Councils are required, by law, to submit an annual report on the state of the environment and develop an environmental plan for their particular area.¹⁰

Environmental Management Councils provide local governments with an overview of the activities of other governmental agencies and help broaden the programs of these agencies, making them environmentally responsive.

The membership of the Council includes local (city, town or village) conservation commissions within the county or counties, plus membership at large, and ex officio members representing appropriate agencies.

The State is required to reimburse up to one-half of the operating expenditures of any county environmental council during the State's fiscal year when funds are appropriated for such purposes. The Department of Environmental Conservation administers the assistance program.¹¹

Since 1970 more than half the counties in New York have Environmental Management Councils, including one regional council involving five counties in the Lake Champlain-Lake George area. Most of the Councils have at least one professional staff person to provide the Council with full-time services, and in many cases there are several staff persons serving a Council on a full-time or part-time basis.¹²

Local Environmental Commissions' Advisory Councils, authorized under Section 239-X of the General Municipal Law, have essentially the same functions within a city, town, and village as the county councils do within a county. A principal difference, however, is that there is no State aid program for the local councils other than monies which may be passed through the county council via cooperative projects.¹³

Local advisory councils work closely with the county council by virtue of the fact that a representative from each local commission comprises, by law, the basic membership of the county council. Also with the State aid coming to the county, a central professional staff is developed at the county level, one of whose major purposes is to assist and work with the local commissions. There are 175 local commissions out of a potential of eight times that amount. The number is not growing.¹⁴

3.2.14.3 Soil and Water Conservation Districts

The Soil and Water Conservation Districts are established to encourage wise land use, reduce erosion and sediment damages, and improve land and water resources. Each District is run by a Soil and Water Conservation District Board. The individual Boards operate programs in their Districts and approve soil and water conservation plans. The District has no regulatory

powers. Districts sponsor local programs and are the vehicle through which Soil Conservation Service programs are implemented.

3.2.14.4 Regional Planning and Development Boards

Regional Planning and Development Boards were organized in response to Federal requirements (A-95 review, 701 planning programs). The individual Boards are established by county resolutions. The Boards also prepare a comprehensive plan. Although they have no regulatory powers, they have the ability to tie up funding through their project review authority.

3.2.14.5 Regional Water Resources Planning Board

There are eleven established Regional Water Resources Planning Board in New York, organized by watershed boundaries. Each of these Boards is responsible for preparing a comprehensive water and related resources plan for the region. They have no regulatory powers and all are currently inactive.

3.2.15 Local General Purpose Units of Government

At the local level, there are general purpose units of government that have some form of authority to control non-point pollution. They are:

- Counties,
- Cities,
- Towns,
- Villages.

3.2.15.1 Counties

Counties are general purpose units of government. They possess certain land use powers. A county may establish a county planning board, which may prepare a comprehensive master plan and review certain local zoning actions and subdivision plats. The county may also establish an official county map, similar to an official town map.

In addition, county governments may establish environmental management councils, which are responsible for reviewing and advising local and State government on present and proposed methods of using, protecting and conserving the environment for the public benefit. Under a separate provision of law, the State Real Property Law requires anyone who subdivides lots for purposes of sale to file a map of the subdivision with the county clerk; filings of subdivision plats which are made without required local and State approvals are in violation of the law.¹⁵

3.2.15.2 Cities, Towns and Villages

Towns, cities and villages in New York are empowered to exercise any or all of a variety of land use controls and programs, although exercise of these

powers is strictly voluntary. There are some differences in the State enabling legislation for cities, towns and villages with respect to land use controls, but the provisions of the acts are generally similar.

Zoning ordinances may be enacted by the municipality that divide the community into districts, and regulate and restrict the type of construction, the use of buildings, and the use of land in each district. Planning boards may also be established to deal with planning matters, the most important of which are preparation of a comprehensive master plan and the right to review and recommend approval or disapproval of subdivision projects. They may also be given a role in a planned unit development (PUD) zoning process.

Towns may establish an official map for parts of the town outside any incorporated village or city. The official map shows the layout of existing streets, highways, and parks that have been duly adopted and established by law, as well as proposed new facilities or proposals for improving or abandoning existing facilities. The official map is final and conclusive with respect to the facilities shown.

Local governments are empowered to undertake the planning and execution of capital programs to provide improvements in their jurisdictions. These programs must include a plan of projects to be undertaken during a six-year period, estimated costs, and proposed methods of financing. They offer the local government an additional means of preparing for future needs and development in an orderly, responsible manner.

Local governments may also exercise a number of other controls affecting land use. These include building codes, housing codes, plumbing and electrical codes and standards for road construction and improvements. Historic and esthetic districts, sites, buildings and objects may be protected by local government regulations, and open space may be acquired and preserved by local governments. Local governments are additionally empowered to establish local environmental conservation advisory councils or commissions to advise in the development, management, and protection of the community's natural resources.¹⁶

3.3 LEGISLATIVE FRAMEWORK

The legislative framework for the State of New York, as implemented by the institutional structure previously presented, is developed in a body of law relating to water quality. In addition to describing the laws it is also important to identify the degree and effectiveness of their implementation.

The legislative framework is presented in summary form on Table II, Summary of Legislative Framework, with a summary of the evaluation of current activity being presented in Table III, Summary of Analysis. The following subsections of this discussion present in more detail the legislative framework and the evaluation as summarized in the two tables. Each table is accompanied by a page of notes identifying different symbols that are used on the table and any specific clarifying comments necessary in the presentation of the table.

TABLE II
SUMMARY OF LEGISLATIVE FRAMEWORK

NEW YORK

CHAPTER	LAND USE CATEGORY ¹									REGULATIONS ²		IMPLEMENTING RESPONSIBILITY ³					TYPE OF CONTROL ⁴				COMMENTS/IMPLEMENTING AGENCY
	Urban	Agriculture	Liquid/Solid Waste	Transportation	Shoreline Landfill	Extractive Operations	Recreation	Lakes & Riverbanks	Forest	Regulations	State	County	Municipality	Special District	Direct (PC)	Planning (P)	Indirect (OS)	Non-Statutory (NS)	Management (MP)	Fiscal (F)	
Agriculture and Market Law, Article 25AA		X								N/A	X	X		X		X				X	Counties, Department of State, Agricultural Resources Commission, Commission of Environmental Conservation
Environmental Conservation Law Section 3-0301	X	X	X	X	X	X	X	X	X	N/A	X				X	X					Department of Environmental Conservation
County and Regional Environmental Management Councils	X	X	X	X	X	X	X	X	X	N/A		X			X			X			County and Regional Environmental Councils
Soil and Water Conservation Districts Law		X								N/A			X		X				X		Soil and Water Conservation Districts
Chapter 727, L1940 as amended by Chapter 887, L1964		X								N/A	X				X			X			New York Soil and Water Conservation Committee
Environmental Conservation Law, Article 15, Title 2	X	X	X	X	X	X	X	X	X	N/A	X				X						Regional Water Resources Planning Board
Agricultural Resources Commission		X								N/A	X				X			X			Agricultural Resources Commission
Pesticide Law, Pesticide Applicator Law		X								Yes	X				X	X					Department of Environmental Conservation
Section 33-1301, Circular 864, Part 326 Circular 865, Part 325																					
Environmental Conservation Law, Article 23, Title 27						X				Yes	X				X	X					Department of Environmental Conservation
Environmental Conservation Law, Article 23, Titles 3, 11, 12						X				N/A	X						X		X		Department of Environmental Conservation
Forest Practice Act, Forest Practice Standards, Timber Harvesting								X	Yes	X			X	X	X			X	X		Department of Environmental Conservation, State Forest Practice Board, District Boards
Environmental Conservation Law 9-0501, 0717								X	N/A	X	X	X				X			X		Department of Environmental Conservation
Real Estate Property Tax Law								X	N/A	X						X				X	Department of Environmental Conservation
Environmental Quality Quality Bond Act							X			N/A	X									X	Department of Environmental Conservation
Memorandum of Understanding between NYDOT and NYDEC				X						N/A	X			X	X					X	NYDOT, NYDEC
Environmental Conservation Law, 27-0301			X							Yes	X	X	X	X							State, County, Regional or Local Health Departments
Environmental Conservation Law, Article 27, Title 5			X							Yes				X	X						Department of Environmental Conservation
Solid Waste Management Act			X							N/A	X				X	X					Department of Environmental Conservation
Title 6. Official Compilation of Codes, Rules & Regulations of NY	X		X							N/A	X	X	X	X							Department of Environmental Conservation, City & County Health Departments
10 NYCRR 75			X							Manual	X		X	X							
Stream Protection Law							X		Yes	X				X	X						Department of Environmental Conservation
Public Lands Law					X					N/A	X			X				X	X	X	DEC, NY State Geological Survey, NY Dept. of State, NY State Power Auth., US Corps of Engineers, Municipalities
Freshwater Wetlands Act 6 OCCRR Part 662					X		X		Yes	X				X				X			Department of Environmental Conservation
Tidal Wetlands Act					X		X		Yes	X				X							Department of Environmental Conservation
NYS Laws of 70, Chap. 140, L197, Chaps. 426, 745, 868								X	N/A	X							X	X	X		NY State Office of Parks and Recreation
Fish and Wildlife Management Act									N/A	X			X		X		X	X			Department of Environmental Conservation
County Enabling Legislation	X	X	X	X	X	X	X	X	X	N/A		X				X					Counties
Towns, Cities, Villages Enabling Legislation	X	X	X	X	X	X	X	X	X	N/A			X			X					Towns, Cities, Villages
General Municipal Law, Section 239-x	X	X	X	X	X	X	X	X	X	N/A			X	X							Municipalities

NOTES -- TABLE II

1. Land Use Categories -- See Chapter 2, for definitions and identification of the land use activities in each category. An X indicates that the land use category is addressed by the Act. It does not indicate the adequacy of authority or degree of implementation. See page reference for discussion.
2. Regulations Adopted -- Have regulations been adopted to implement the legislation? Symbols refer to:

Yes -- Regulations have been adopted

No -- Regulations have not been adopted

NA -- Information not available or in case of Non-Statutory Control, not applicable.
3. Implementing Responsibility -- The key agencies and/or levels of government that have responsibilities in implementing the legislation. Specific agencies, municipalities and/or special districts are identified in the comments section.
4. Type of Control -- See Chapter 2, Section 3, for definitions of each type of control.
5. An X indicates that the category is addressed by the act identified, it does not identify the adequacy or degree of implementation.

SUMMARY OF ANALYSIS

NEW YORK

TABLE III

LAND USE ACTIVITY	Magnitude of the Problem					COMMENTS/SOURCES
		Current Activity	Staffing	Financing	Likely Future Activity	
Urban						
Site Runoff	M	L, EP	NI	NI	L, TR	See Note 6, pgs. 19-27
Stormwater Runoff	UK	NA	NA	NA	TR	See Text pg. 27
Agriculture						
Pesticides	L	EP	O	NI	EP	See Note 7
Fertilizers	UK	TR	NI	NI	EP	See Text pgs. 29-30
Feedlot Operations	L	IP	NI	NI	R	See Note 6, See Text pg. 30
Erosion	M	IP, EP	NI	--	L, IP	See Note 6, See Text pgs. 30-32
Drainage	L	IP	NI	--	NO	See Text pg. 32
Liquid, Solid, Deepwell Disposal		L, R			L, R	
Solid Waste	M	EP	O	--	EP	See Note 8, See Text pgs. 32-39
Liquid Sewage Sludge	L	TR	NI	NI	TR	See Text pgs. 39-40
Private Sewage Disposal	UK	EP	O	O	L	See Note 8, See Text pgs. 40-41
Transportation Corridors						
Highway and Road Runoff	L	NI	NA	NA	TR	See Text pgs. 41-42
Railroad Runoff	L	NI	NA	NA	TR	See Text pgs. 41-42
Airport Runoff	L	NI	NA	NA	TR	See Text pgs. 41-42
Utility Rights-of-Way Runoff	L	NI	NA	NA	TR	See Text pgs. 41-42
Shoreland Filling						See Text pg. 48
Land or construction excavation	UK	EP	NA	NA	NO	See Text pg. 42
Dredging	UK	EP	NA	NA	NO	
Extractive Operations						
Pits or Quarries	M	EP	--	--	R	See Text pg. 43
Mining	M	EP	--	--	R	See Text pgs. 45-47
Brines from Oil and Gas	L	EP	--	--	R	See Text pgs. 44-45
Recreational Areas						
Pesticide Use	L	EP	O	NI	EP	See Text pg. 47
Runoff from Specific Uses	L	EP	NI	NI	EP	See Text pg. 47
Private Sewage Disposal		EP	O	O	L	
Lakeshore and Riverbanks						
Erosion	UK	EP	NA	NA	L, TR	See Text pg. 48 See Text pg. 48
Forest						
Timber Production	L	IP, EP	--	--	TR	See Note 9, pgs. 49-51
Woodland Grazing	L	NI	NI	NI	NI	See Text pgs. 49-51
Wildlife Management	L	EP	NI	NI	EP	See Text pgs. 49-51
Recreation	L	EP	NI	NI	EP	See Text pgs. 49-51

NOTES -- TABLE III

1. Magnitude of the Problem -- The degree that the land use activity is reported to be a problem and/or perceived to be a problem by local or State officials. Symbols refer to:

S -- Serious

M -- Moderate

UK -- To be determined

L -- Low.

2. Current Activity -- The land use activities where current activities are focused primarily at the State level. Activities of major emphasis are noted with asterisks (*). The types of activity are:

L -- Development of new or improvements to legislation

R -- Development of or improvements to the regulations

TR -- Technical research to determine the type of controls needed, if any

IP -- Implementation to incentive programs

EP -- Enforcement of control programs

NO -- No action

NA -- Not applicable

NI -- Information not available.

3. Staffing -- The adequacy of staff assigned to the implementation of legislation addressing the land use activity. Symbols refer to:

+ -- Too many staff resources applies

O -- An adequate amount of staff resources applied

- -- An inadequate amount of staff resources applied

NA -- Not applicable

NI -- Information not available.

4. Financing -- The adequacy of the financing appropriated to the implementation of legislation addressing the land use activity. Symbols refer to:

+ -- Too much financial assistance

O -- Adequate financial assistance

- -- Inadequate financial assistance

NA -- Not applicable

NI -- Information not available.

5. Likely Future Activity -- The land use activities where there is likely to be future activity primarily at the State level. The types of activity are:

L -- Development of new or improvements to legislation

R -- Development of or improvements to the regulations

IP -- Implementation of new or improved incentive programs

EP -- Enforcement of new or improvement of control programs

NO -- No action

NA -- Not applicable

NI -- Information not available

TR -- Technical research to determine the type of controls needed, if any.

6. Interview with Louis Concra, Jr.

7. Interview with Charles Frommer, Bureau of Pesticide Control.

8. Interview with William Wilkie, Dr. Julian Loub, DEC, Division of Solid Waste.

9. Interview with Barton Zeh, DEC, Bureau of Forest Resources Planning.

3.3.1 Urban Areas

3.3.1.1 Site Construction Runoff

Magnitude of the Problem

New construction sites in urban areas can exert a non-point source loading of sediments up to 500 times greater per unit area than is evident in agricultural operations. Construction is an extensive land disturbing activity and places urban lands under unstable conditions, resulting in a high loss of topsoil.¹⁷ Research indicates that the problem of construction site runoff in New York is considered moderate.¹⁸

Current Activities

There are no state laws or regulations strictly directed at controlling non-point source runoff generated from construction sites. However, in situations where specific activities can be shown to cause degradation of surface waters under general water quality standards, abatement of sedimentation can be enforced.¹⁹ There are some municipalities which have ordinances or guidelines directed at the control of runoff from construction sites.

There are a number of statutes which provide various agencies and boards with the authority to regulate non point sources of pollution caused by construction site runoff. They are:

- Plan Commission Authorities
- Enabling Legislation for Cities, Towns, Villages and Counties
- Freshwater Wetlands Act
- State Environmental Quality Act
- Environmental Conservation Law, Article 47

Planning Commissions

Under the law local planning commissions have the power to regulate the land uses and types of structures built. These powers could act to abate the water pollution caused at construction sites.

By law, every builder who wishes to subdivide the land is required to submit a plan to the local plan commission for approval. The interviews revealed that plan reviews are spotty at best. It appears this inability to review plans is due to the lack of professional staff. In addition, staff members are often pressured to approve plans to avoid construction delays for the contractor. A stricter review procedure could affect problems caused by site runoff.²⁰

Enabling Legislation for Cities, Towns, Villages and Counties

Cities, towns, villages and counties, through their enabling legislation, have the authority to adopt ordinances that could require erosion and sediment plans for land disturbing activities in their subdivision control plans. Their subdivision control and land development ordinances are enforced through building permits. Some localities have enacted ordinances that control private activities, but none have any enforcement measures.²¹

In the cases where local governments are applying for funds to construct sewage treatment plants, public buildings or other projects, the DEC is responsible for approving the applicants' proposals. By law, DEC is required to consider the impacts of site runoff that would be caused by a project.

Freshwater Wetlands Act

Under the Freshwater Wetlands Act, local governments and the Department of Environmental Conservation have the ability to regulate construction activities by virtue of their authority to issue permits for construction in freshwaters or within 100 feet of a wetland.

The Act permits local governments to impose conditions or limitations through permits. Local governments also have the authority to suspend or revoke a business license if the conditions of a permit are not complied with. In addition, local governments may establish programs for the protection of wetlands.

DEC is also designated the responsibility of preparing an official map of all wetlands over the statutory minimum size of 12.4 acres. According to the Act, the map is intended to aid the Department in determining what uses of wetlands are most compatible and in preparing minimum land use regulation. Local governments are also encouraged to draft minimum land use regulations. The permanent regulatory program will not go into effect until the inventory and the official map is completed. In the meantime, an interim permit program went into effect in September, 1975, which states that no one may conduct a regulated activity in a wetland without obtaining an interim permit. (Authorized under Title 6, Official Compilation of Codes and Regulations, Part 662.) DEC determines whether or not a particular area is a wetland subject to regulations.

State Environmental Quality Review Law (SEQR)

Article 8 of the Environmental Conservation Law (ECL) requires the preparation of environmental impact statements on actions that may have a significant effect on the environment. The purpose of SEQR, passed by the State Legislature in 1975, is to incorporate environmental factors into the existing planning and decision-making processes of the State, regional and local agencies at the earliest possible time. The process is shaped by environmental review regulations of Statewide applicability promulgated by the DEC (17 NYCRR 617). These regulations will serve as an administrative template for local and Statewide environmental impact review and as a mechanism for

coordinating and streamlining interagency environmental review. The Act further provides that State agencies and municipal governments develop their own procedures to implement the law. Private activities are subject to preparing a Statement under the law.²²

Problems that may be generated by site runoff must be identified in the EIS. The statement should also include steps that can be taken to mitigate site runoff. However, there are no sanctions in the Act that require a change in actions to mitigate site runoff problems.²³

Environmental Conservation Law, Article 47

Under the Environmental Conservation Law, Article 47, county and regional environmental management councils have authority to affect water pollution generated from construction site runoff and stormwater runoff by preparing a plan to manage the county's natural resources. The councils are required to keep an index of all open areas in the county and recommend a program for their utilization. In addition, the Council has the authority to operate educational centers and manage natural areas.

Evaluation

It appears that agencies and boards do have the authority to control site runoff, however, they focus their efforts on problems other than on strict water quality concerns. As a result any actions taken by these groups only indirectly impact pollution caused from site runoff.

It should be noted that in the interviews with the State officials, construction site runoff was not considered a serious problem. Currently under the 208 program a study is being conducted on the magnitude of the runoff and any problems will be identified.

There is a desire to draft a comprehensive sediment control program. It was suggested that two types of planning be incorporated in the program. First, areawide plans should be required that would identify high erosion potential areas. Second, site-specific plans should be required in order to conduct land disturbing activities. Also, the Act should require the individual to submit a performance bond. The program should additionally include provisions that detail inspection procedures.²⁴

3.3.1.2 Stormwater Runoff

Magnitude of the Problem

The primary stormwater problem in New York is combined sewers. Combined storm/sewage systems do not possess the capacity to treat the increased load generated during periods of increased stormwater runoff, thus causing significant overflows of raw, untreated sewage mixed with urban stormwater runoff into streams without treatment.²⁵

Little data is available that adequately describes the severity of this pollution problem in New York.

Current Activity/Evaluation

The final determination of the methods to solve the stormwater runoff problem has not yet been made. Consequently, no effective controls have been developed. Currently in New York, combined sewers are permitted under DEC's point source program. However, DEC will not provide funding for combined sewers unless it can be shown that combined sewers are more cost effective than a separate system.²⁶ Currently a study is being conducted on combined sewer overflows.²⁷

3.3.2 Agricultural Areas

3.3.2.1 Pesticides

Magnitude of the Problem

Research indicates that the application of pesticides could have a potentially adverse effect upon animal and plant life in both aquatic and land ecosystems. However, because of the beneficial role pesticides can play in controlling harmful pests, there has been a reluctance to ban pesticides outright.²⁸ The application of pesticides has had a low level of effect in harming the environment.²⁹

There are currently 15,000 commercial applicators in the State, of which 14,000 are certified. It is estimated there are approximately 25,000 private applicators of which 15,000 to 16,000 are certified. The requirements for certification went into effect on October, 1977. Consequently, a significant number of applicators have yet to be certified. The program had been voluntary until now. The eventual certification and licensing of applicators is of an immediate concern to the State.³⁰

Current Activity

New York's Pesticide Law requires the registration of all pesticides distributed, sold, transported and applied in the State and provides the authority to restrict their use. The statute, in addition, requires any individual wishing to purchase or possess a pesticide whose use has been restricted to obtain a permit. Persons wishing to sell or purchase for resale a pesticide with a restricted use permit are also required to obtain a commercial use permit. Circular 864, Part 326, which implements the law, lists the pesticides that may be used upon issuance of a permit and the conditions and procedures under which a permit may be denied or revoked.

The pesticide Applicators Law establishes the Department of Environmental Conservation's duties and responsibilities. The Act stipulates that any person who is engaged in custom application of pesticides must be certified. It also details certification requirements. Circular 865, Part 325 is a set of regulations that implements the Act. The regulations detail the procedures for cleaning and disposing of pesticide containers and unwanted or used pesticides. They further discuss the standards for certification of all categories of applicators -- commercial, private, and supervision of non-certified applicators.

Commercial applicators are required to receive an annual certification with a complete recertification every five years. Private applicators receive certification for a 3-year period with recertification every six years. Upon certification applicators are required to participate in a training period.³¹

The training program is carried out through the Co-op Extension Agency, School of Agriculture at Cornell University. The overall program meets EPA minimum standards. Some of the program requirements are stricter than EPA's.³²

The Department carries out normal inspections. It also maintains spot inspections of both commercial and private applicators.

Both Acts apply to all governmental activities such as highway spraying and prison farming operations.

Evaluation

New York's regulatory practices with regard to the restriction of the sale, distribution, and application of pesticides are written to prevent deterioration of environmental quality. There appears to be adequate staff to operate the program. According to the interviews inspectors both routinely inspect applicators operations and respond to complaints.³³

The program is a model program in its comprehensive approach, and its use of a mandatory training program to increase the skills of the individuals handling and applying pesticides.

3.3.2.2 Fertilizers

Magnitude of the Problem

Various nutrients have different effects on water quality.

Agricultural land is estimated to contribute approximately 20 percent of the total phosphorous loading the Great Lakes and approximately 30 percent of that contributed by tributaries to the Great Lakes. Unfortunately, sufficient information is not available to compute the proportion of nitrogen loadings contributed from agricultural lands although it may be similar to the amount estimated for phosphorous.

Not only is there a lack of information concerning the exact characteristics of fertilizer and other nutrients but technical solutions which would limit the effect on water quality, such as the time of year and best methods of application, have yet to be determined.³⁴

There is a problem in attempting to regulate thousands of individual users of fertilizers and other nutrients. Given the number of farms in New York, developing regulations, monitoring, and control practices guiding nutrient applications are not feasible given limitations on available funding and manpower. Another problem with application control and use is that the water quality problems vary from site-to-site.³⁵

Current Activities

According to materials made available to us, the use of fertilizers is not legally regulated. The State does operate an extensive technical assistance program through the Co-op Extension Service, School of Agriculture at Cornell University which provides farmers with suggestions as to the time, method, and amount of fertilizer to apply.³⁶

Evaluation

Because the impact of fertilizers in relation to time and method of application is unknown, no regulations have been developed to limit their effect on stream and groundwater quality. It was suggested that nutrient effects on water quality could be limited by implementation of better management practices, such as soil erosion and control programs. Officials estimate that education and the increasing costs of fertilizers controls the volume of application.³⁷

3.3.2.3 Feedlot Operations

Magnitude of the Problem

The operation of animal feedlots in New York to date has not posed serious water quality problems.³⁸ According to an interview with one State official, there is only a small number of animal feedlots that are required to obtain a permit to operate. (EPA's Guidelines applicable to feedlots within certain sites of operations under the NPDES Program.) There is a large number of smaller feedlots; however no more than 25 percent of those operations have any kind of water quality problem.³⁹

Current Activity and Evaluation

Codes of practice or "good practice guidelines" for the disposal of agricultural waste have been developed. These guidelines deal with site selection, handling and storage of wastes, disposal of wastes, and some specific construction criteria. They are strictly voluntary, and some feel they are not comprehensive. (A copy of these guidelines was not made available.)⁴⁰

3.3.2.4 Erosion

Magnitude of the Problem

Soil erosion from runoff waters across land can cause sediment to be deposited into streams resulting in a variety of adverse effects to the quality of those streams. Sediment can result both from agricultural runoff as well as urban construction site runoff. It is the greatest single

water pollutant from agricultural activities, while research had indicated that sediment production from eroding construction sites can easily produce ten times the soil loss from cropland.⁴¹ Soil loss from erosion and sedimentation is considered a moderate problem in New York.⁴²

Current Activity

Currently there are no State laws or mandatory regulations specifically directed at sediment control. Agricultural activities that do generate loads of sediment which could adversely affect water quality can be abated under general water quality guidelines and regulations.

There are two special purpose districts that have the authority to indirectly control water pollution caused by erosion. They are Soil and Water Conservation Districts and Regional Water Resources Planning Boards. Also there are some facets of indirect control under the Stream Protection Law.

SWCD's are authorized under the Soil and Water Conservation Districts Law. The Soil and Water Conservation District's law is directed at erosion and sediment control. It also provides the districts with a variety of planning and implementation powers. They are responsible for operating programs within their districts to prevent erosion and sediment damages on a voluntary basis. Each district has the power to tax, purchase, and acquire land through condemnation proceedings.

Under the Act, every individual with a rural holding of over 25 acres must prepare an individual conservation plan by 1980. SWCD's are charged with assisting landowners in preparing erosion and sediment control plans and reviewing them. There is no provision in the Act that penalizes farmers for non-compliance. The 208 Program expects to review sediment control in depth and recommend methods to control New York's erosion problems.⁴³

The Environmental Conservation Law, Article 15, Title 2 provides Regional Water Resources Planning Boards with the authority to indirectly control erosion. This is accomplished through their authority to prepare a comprehensive water and water-related resources plan. The plans should detail the following aspects of water development and management:

- o Flood plain zone management;
- o Irrigation;
- o Water quality management;
- o Navigation, and
- o Wildlife management.

Currently, none of these Boards are receiving State funds, and their activities are limited to local voluntary efforts.⁴⁴

Local units of government have the authority to pass their own sediment control ordinances.

Evaluation

The involvement of the Water Resources Planning Boards with the control of erosion generated from farming practices has been minimal. However, in this case it is due to the lack of funds. Some of the Boards do meet on a voluntary basis and discuss local interests.⁴⁵

The Soil and Water Conservation Districts Law only has an indirect effect on controlling erosion. This is because the Act has no teeth -- there are no provisions that penalize farmers that fail to submit a conservation plan. Some people feel that a cost share feature should be added requiring landowners to cooperate with SWCD's proper planning in order to receive funds.⁴⁶

It is felt that a mandatory sediment control program would work without a cost share feature, but its implementation would go very slowly. Further, the requirements that must be fulfilled to produce an adequate farm plan may force marginal farmers out of business. The 208 program is reviewing alternatives to the sediment control program that may be implemented.⁴⁷

3.3.2.5 Drainage

Magnitude of the Problem, Current Activity, Evaluation

Over half of all agricultural land in New York has been drained. It was either drained for general farming operations or to allow for farming activities on various types of slopes. Drainage is not considered to be a water quality problem in New York. In cases where there has been a problem it is caused by drainage of fertilizers and/or pesticides improperly applied or drains that have not been maintained properly.⁴⁸

Localized districts have the responsibility and authority to control and regulate drainage areas. Unfortunately most of these districts have limited funds available to them to put into designing new drains.⁴⁹ They also have a variety of powers which allow them to regulate land uses and types of structures built. These powers may also directly act to prevent deterioration of water quality caused from drainage.

3.3.3 Solid, Liquid and Deepwell Disposal

3.3.3.1 Solid Waste Disposal

Magnitude of the Problem

Disposal areas are frequently both an environmental blight and a health hazard. Although burning has practically been eliminated, pollution of

surface and ground waters exists at more than 100 refuse disposal areas. Of 675 existing refuse disposal areas, only 63 percent comply fully with State regulations.⁵⁰

Substandard operation of disposal areas can be attributed to unsuitable sites, or to small operations which serve a limited area and where adequate personnel and equipment cannot be provided economically.⁵¹ Of the 41 municipal incinerators operated in the State most are inadequate either in capacity or performance. Many of these are approaching or are well past the useful life of 25 years generally considered for such facilities.⁵²

Almost every proposal to establish a new solid waste management facility is met by public opposition. To further complicate the issue financial assistance to construct new or upgrade old facilities is insufficient.

Current Activity

Landfill is by far the most widely used disposal method and is employed for 80 percent of solid wastes generated in New York. There are relatively few large-scale land disposal operations at this time. Less than 4 percent of the facilities have 100 acres or more for use; however, these sites account for close to half of the total land areas in the State used for solid waste disposal. Some counties will not require any significant increase in disposal area capacity in the next 5-10 years, but many counties are using up most of the remaining capacity in 5 years.⁵³

Solid waste management is a local responsibility. The Municipal Home Rule Law, the General Municipal Law, the County Law, the Town Law, the Village Law, the Public Health Law, the Environmental Conservation Law, the charters of cities and some counties, all contain provisions authorizing units of local government to enact local laws, ordinances, or rules and regulations pertaining to solid waste collection, processing or disposal. Local regulations may prohibit practices which endanger health or property or which result in nuisances. For example, the Town Law provides authority to regulate use of any lands for dumping, collection of garbage, storage of refuse on private property, and disposal of refuse on town highways. The General Municipal Law also provides a wide range of flexibility for inter-municipal service arrangements. Municipalities are empowered to perform any service or function on a cooperative basis that they are not authorized by law to provide on a separate or individual basis.⁵⁴

Under the State Constitution, counties may incur joint debt to finance and provide sewer service in a district crossing a county line. The mechanism to acquire this joint debt requires that the portion of the debt chargeable to each county be apportioned to that county rather than the total debt charged to the district. The debt to finance the sewer service can be acquired outside the bonded indebtedness limitation of each county. As yet no investigation has been made of the applicability of this approach to solid waste collection and disposal, but this may be a desirable legislative vehicle for simplifying and encouraging multi-county solid waste management systems.⁵⁵

Although collection and disposal of refuse is primarily the responsibility of local government, a number of State agencies are involved either directly or indirectly to varying degrees. Two agencies have substantial direct involvement: the Department of Environmental Conservation and the Environmental Facilities Corporation.

Department of Environmental Conservation

Within the Department of Environmental Conservation, primary activity in solid waste management is centered in the Division of Solid Waste Management. This Division is responsible for overall program direction.

Field operations, including inspections, monitoring and surveillance of facilities, and enforcement are principally the responsibility of the nine regional offices of the Department.⁵⁶

Other divisions in the Department of Environmental Conservation have a direct interest in solid waste management. The Division of Pure Waters is concerned with the effects of solid waste processing and disposal operations upon both surface and ground water resources. The Division of Law Enforcement, with a uniformed force of more than 200 Environmental Conservation Officers, plays an active role in enforcing regulations controlling the disposal of refuse, septic tank pumpings and collected industrial waste.⁵⁷

Environmental Facilities Corporation

The Environmental Facilities Corporation is the second major agency with direct involvement in solid waste management. EFC can finance, construct, maintain and operate sewage treatment facilities, and resource recovery facilities.

Other State agencies are involved in supportive roles as follows:

The Department of Health performs laboratory analyses related to solid waste management operations and ensures that solid waste disposal operations are adequate at temporary residences, migrant labor camps and hospitals.

The Division of the Budget controls State aid and funding of environmental programs.

The Department of Audit and Control (Division of Municipal Affairs) approves bond issues and creation of special districts, and provides counseling in budget and revenue financing.

The Department of Transportation is responsible for researching, planning, designing, constructing and maintaining all State and Federal roadways and waterways in the State. The Department's Bureau of Soil Mechanics assists the Division of Solid Waste Management in soils surveys to evaluate proposed disposal sites.⁵⁸

The Office of Parks and Recreation is concerned with intensive recreation and related activities. It can advise on State and Federal funds available for park development and can provide funds for assistance in developing a refuse disposal site for recreational reuse, if disposal operations are phased to permit park operation to begin as soon as possible after initial landfill operations. In major parks where sanitary landfills exist or a major volume of solid waste is generated, efforts are made to coordinate activities on a regional basis.

The Office of General Services (Bureau of Surplus Real Property) has responsibility for lands under water, surplus lands and unappropriated lands. It may provide land to municipalities for sanitary landfills, but only when the planned reuse is for a park, highway, or recreation facility; forestation or mental health facilities. OGS also operates a computer complex which is used by the Division of Solid Waste Management for mathematical modeling operations in comprehensive planning activities.

The Department of Commerce has economic research capabilities and is a primary source of industrial data for solid waste management planning. The DEC Division of Solid Waste Management works closely with this Department in the promotion of new and expanded markets for recovered resources.

The Department of Agriculture and Markets is concerned with swine feeding operations and the disposal of contaminated food, contaminated animals and manures. It also works with the Division of Solid Waste Management on disposal problems at food processing plants.⁵⁹

Several legislative actions have had a major impact on solid waste management and control in New York. The first was by the Public Health Council adoption of Part 19 of the State Sanitary Code, which became effective January 1, 1963. In substance the Sanitary Code: (1) required all land disposal sites, both private and municipal, to be operated essentially as sanitary landfills; (2) included regulations prohibiting the burning of refuse at such sites; (3) discouraged uncontrolled scavenging practices that tend to degrade disposal operations; (4) specified requirements for compaction and cover, vector and litter control; and (5) required approval for new sites and proposed operations by the full-time health officer having jurisdiction. The Sanitary Code also prohibits the disposal of solid waste material in any manner or in any location which would result in contravention of water quality standards. The regulations further require that municipal incinerators be operated and maintained so as not to create a nuisance or hazard to public health.⁶⁰

The program was given additional impetus by the Federal Solid Waste Disposal Act of 1965, which made possible the acceleration of staffing and program development.

Significant State legislation enacted in 1966 authorized 100 percent funding for comprehensive regional solid waste management studies to be conducted by qualified consulting engineers. This State grant program accelerates county and regional planning for the collection, treatment and disposal of all solid wastes.⁶¹

Thus far, State-financed comprehensive planning studies have been undertaken in 36 counties and the City of New York; this represents almost 93 percent of the population. The total cost of these studies was \$3.6 million, of which the State has provided \$3.1 million and the balance has been provided from a planning grant under the Federal Solid Waste Disposal Act of 1965.⁶²

Solid waste management studies conducted in 9 additional counties were funded partially under Federal programs. Financial assistance was provided directly by the U.S. Environmental Protection Agency and the Department of Housing and Urban Development, with the counties bearing approximately one-third of the project costs.

In addition, six counties conducted solid waste planning studies at local expense without receiving any financial assistance from either State or Federal sources.⁶³

Detailed Planning Assistance and County Law Amendment

Another advance was accomplished during the 1970 legislative session when two major statutory changes were enacted as follows:

1. Within the limitation of appropriations, 50 percent of State aid to municipalities was authorized for preparation of detailed plans for the construction of all types of solid waste disposal facilities (sanitary landfills) or the improvement of existing facilities.
2. Counties were authorized to become directly involved in solid waste management. The legislative body of any county in the State may now appropriate and expend monies to acquire, construct, operate and maintain solid waste disposal sites or facilities without time-consuming procedures previously required. Existing and proposed land use plans for the area where a facility is proposed to be located must be considered in the action taken. The county legislative body may also establish fees for solid waste collection and disposal services established under this law.⁶⁴

Septic Tank Cleaner and Industrial Waste Collector Registration

Significant legislation was enacted in 1971 to control disposal of septic tank sludges and problem industrial wastes. Septic tank cleaners and industrial waste scavengers are required to be registered annually and must dispose of wastes only at approved sites of facilities. Over 700 firms and individuals are currently registered and this program is providing improved control of the disposal of these problem wastes.⁶⁵

Environmental Quality Bond Act

The most significant legislation ever enacted to improve solid waste management in New York State is the Environmental Quality Bond Act of 1972. A \$1.15 billion bond issue was authorized to provide monies for the preservation, enhancement, restoration and improvement of the State's environment. Essentially, a local assistance program, \$175 million is allocated to solid waste recovery and management projects. This represents a major breakthrough not only in achieving needed improvements in solid waste management, but also in accelerating development and construction of resource recovery facilities.⁶⁶

The Environmental Quality Bond Act authorizes State grants up to 50 percent of the cost of resource recovery projects and up to 25 percent of the cost of equipment for environmentally sound disposal projects.

Also included in the Bond Act is authorization to provide grants to municipalities up to 50 percent of the cost of upgrading incinerators to meet air quality standards. These improvements will be approved and receive State aid only where operation of improved incineration facilities is consistent with sound solid waste management for the area. Almost \$100 million is allocated for incinerator upgrading in the Bond Act, in addition to the \$175 million for solid waste management projects.

Municipalities apply directly to the Department of Environmental Conservation for financial assistance under this program.⁶⁷

The emphasis of the Act is upon resource recovery in recognition of this important new direction for managing our solid wastes. Assisting local government in the financing of new projects is helping to overcome the reluctance of local government to move in new directions -- to proceed with intergovernmental cooperative projects that utilize newly developed technology. This will also help bridge the dollar gap between current inadequate disposal methods and sound solid waste management systems.⁶⁸

In 1973 the Division of Solid Waste was transferred from the Department of Health to the Department of Environmental Conservation. Prior to that time the Division's regulatory control was limited to primarily refuse disposal. The Division's regulatory control (Chapter 399 of the Laws of 1973) was expanded at that time to include all solid waste management facilities rather than just disposal facilities.

The Division adopted new rules and regulations (Part 360) with regard to their permit program for landfills which became effective August 28, 1977.⁶⁹

Under the new regulations a dual permit system will be initiated to spur proper construction and operation of facilities. The operating permit is to be renewed.⁷⁰ Renewal will be determined on a case by case basis by the reviewing officer. The Division's goal is to bring the operation of sanitary landfill up to a level whereby the renewal period is every three years.⁷¹

Evaluation

The generation of solid waste continues to accelerate. Municipal, industrial and agricultural wastes now amount to more than 52 million tons per year; this will increase to more than 73 million tons per year in 1995 if present trends continue.⁷²

Although a substantial number of existing disposal sites are poorly operated and have limited useful life remaining, little positive action is being taken by some local governments to assure adequate disposal facilities. The major factors that limit progress are:

- Public objection to proposed new disposal sites,
- Increased disposal costs,
- Mistaken attitudes that recycling precludes the need for disposal facilities.

Almost every proposal to establish a new refuse disposal area is met by militant public opposition, even when there is a sincere intent to conduct an exemplary, properly planned and operated sanitary landfill that can benefit adjacent land use.⁷³

With regard to the new regulations concerning the permit program (Part 360), there will be a manpower problem in implementing them since all non-approved landfills have six months to apply and all currently approved landfills have 18 months to apply for a new permit. However, after the initial start-up period there should be adequate manpower to ensure the continuing operation of the program. Unfortunately, this program does not have an operators certificate program attached to it. However, sufficient training is required to obtain an operators license. The Division of Solid Waste is planning to institute a voluntary training program for the operators in hopes that they can encourage all operators to become adequately trained.⁷⁴

Another deterrent to achievement of objectives in the solid waste program is the lack of legislation requiring towns, villages, cities, or counties to make provision for solid waste disposal or recovery, either

through direct municipal operation or through contractual arrangements. All existing laws merely empower or allow the provision of such a service; it is not mandatory. Some local governments not only fail to make provisions for adequate refuse disposal or resource recovery facilities, but do not recognize it as a municipal responsibility.⁷⁵

Additional legislation is also desirable to provide a better foundation for solid waste management projects that serve more than one county. Solid waste management systems serving several counties, or portions of several counties, may be established under existing statutes by agreement or contract between the municipalities included in the service area. The major limitation in this approach is that a local authority must be created by act of the State Legislature so that such a multi-county service agency may borrow money as a legal entity. Many local governments have been reluctant to support the establishment of local authorities. New legislation is desirable so that municipalities may proceed cooperatively in the development of multi-county service regions with fewer restrictions than now exist. This becomes of paramount importance in the development of resource recovery systems that serve multi-county areas.⁷⁶

The State is taking new directions, particularly toward the development of resource recovery. As of January 1, 1976, 21 applications had been received for resource recovery projects. The estimated total cost of these proposed facilities is \$435,350,000, with requested State financial assistance of \$171,200,000. The proposed facilities would process 25,730 tons of municipal solid waste a day, a capacity of 7,719,000 tons per year. This is equal to 37 percent of the current municipal waste generation rate in New York State and represents a positive movement toward efficient solid waste management.

Three basic types of energy recovery systems are being planned throughout the State: use of processed refuse as a supplemental fuel in existing utility boilers, use of processed refuse as the primary fuel in new boilers, and production of a fuel gas by pyrolysis. Materials recovery is an integral element of all of these systems. Selection of one of the above systems depends upon the availability of markets for the end product and the effect of the facility on the environment of the area.⁷⁷

3.3.3.2 Liquid Sewage Sludge

Magnitude of the Problem

Industrial wastes are usually not considered a significant problem because the wastes are usually sanitized before disposal. This is not true of municipal wastes which contain potential public health hazards if improperly disposed. New York's problems with regard to liquid waste disposal in industrial areas is considered low and undetectable in municipal areas.⁷⁸

Current Activity, Evaluation

New York does not have any specific standards or regulations applying to land treatment techniques. The State operates on a case-by-case basis, giving consideration to field topography and soil characteristics, including infiltration and percolation rates, soil, groundwater and aquifer characteristics, climatic conditions, and crops to be utilized. Each project is reviewed with specific reference to water balances. The State does not approve systems that allow runoff to surface waters. Because this is a land treatment system, it must operate with a closed system with no drainage to surface waters and minimal drainage to groundwater areas.

In this context land treatment of wastewater is not used as a means for recharge aquifers. Spray irrigation is only permitted during growing seasons. However, no restrictions are placed on the types of waste water which are to be sprayed. This means that pH can range considerably, although it is desirable within the range of 6 to 8.5. High concentrations of sodium are not encouraged. Yet, control of them is questionable. Finally, the State is attempting to discourage the discharge of wastes which are high in non-biodegradable substances, such as phosphorous.⁷⁹

Liquid sewage sludge has received very little attention today. The 208 Program is trying to determine the magnitude of the sludge problem, which is currently unknown.⁸⁰

3.3.3.3 Private Sewage Disposal

Magnitude of the Problem

The consultants have not been able to obtain sufficient evidence through their interviews or the materials provided them to date to determine the impact created by on-site disposal or septic tanks on water quality.

Current Activity, Evaluation

With regard to private sewage disposal, the Environmental Conservation Law 27-0301 and 0302 covers the registration and operation of septic tanks and the registration of those individuals who collect wastes at one or more locations. Under the Act, the Commissioner of the Department of Environmental Conservation is authorized to regulate private waste disposal by requiring all persons engaged in the business of clearing septic tanks, cess-pools, or marine sanitary wasteholding facilities to be registered with the Department. Applications for registration require information as to the type and number of holding machines and vehicles to be used and the manner by which these waste products will finally be disposed of. Each registrant is further required to report annually as to the type of installations emptied and the place and manner in which the waste is finally disposed of.

The rules and regulations, Septic Tank Cleaner and Industrial Waste Collector Registration, which implement ECL 27-0301 further detail registration requirements and procedures. (Refer also to previous section 3.3.3.1 Solid Waste Disposal discussion.)

According to interviews both the septic tank cleaners and haulers, and the industrial waste cleaner and hauler registration programs are effective and actively enforced. Apparently, the number of complaints received by the Division of Solid Waste has drastically declined since the program was initiated. The trend seems to be that most septic tank wastes will be handled in sewage treatment plants. There is a need to develop legislation that will control the transportation, processing and disposal of hazardous waste. It is uncertain at what time this will occur.⁸¹

3.3.4 Transportation

3.3.4.1 Transportation Corridors

Magnitude of the Problem

Transportation affects water quality through runoffs to surface water from highways and airports, oils and salts leaching into adjacent soils, herbicidal applications along roadside and railroad sites, and accidental spillage of materials. Certain forms of solid waste such as litter or debris are also found near highways and railroads, but nutrient loading is seldom an important runoff from transportation.⁸² New York is considered to have a low level problem with regard to non-point pollution impacts of water quality resulting from transportation systems.⁸³

Current Activity, Evaluation

At the State level, the general regulations controlling pesticides, sedimentation and herbicides are the only requirements that apply to non-point source aspects of highways, railways and airports. The sanding of highways creates an estimated 15 cubic feet of sand getting into a stream per mile of associated roadway. There is no mechanism for controlling such activities. Salting of highways is another problem for which there are no controls.⁸⁴

All State roads and county roads which receive Federal funding provide for control of runoff and erosion set by DOT specifications.

There is a Memorandum of Understanding Between the New York State Department of Transportation and the New York Department of Environmental Conservation that establishes a base of authority from which to control runoff from transportation corridors. The agreement recommends that there be continuous cooperation between the State DOT and the State DEC throughout the development, evaluation, and implementation of programs and projects which are promulgated under the legislative authority of the respective

agencies. It is suggested that each agency furnish copies of its long-range plans for the improvement of facilities and services under its jurisdiction and copies of its current capital program and scheduled maintenance program to each other. They are also responsible for advising each other of any relevant environmental research. It is recommended that each agency comment upon proposed projects and suggest alternatives which will mitigate or minimize potential adverse impacts. It is further suggested that each agency notify the other in advance of changes in construction specifications or other relevant standards and regulations.

It is anticipated that the 208 Program will attempt to define the magnitude of the water quality problems resulting from transportation activities.⁸⁵

3.3.5 Shoreland Filling

Magnitude of the Problem, Current Activity, Evaluation

There is little available information with regard to the effect of shoreland filling on water quality. At the State level there are three statutes that provide the Department of Environmental Conservation with some authority to control dredging and land excavation activities through a variety of permit programs: the Stream Protection Law, the Freshwater Wetlands Act, and the Public Lands Law.

Stream Protection Law

Article 15, Title 5 of the Environmental Conservation Law, the so called "Stream Protection Law" provides the DEC with the authority to regulate activities affecting the beds and banks of unprotected streams, excavation and fills in navigable waters and construction of sizeable docks and dams. Any persons wishing to change, modify or disturb any stream or remove any sand or gravel must obtain a permit. Plans to disturb a stream or navigable waters will not be approved if the proposal causes unnecessary soil erosion or water pollution.

Freshwater Wetlands Act

The Freshwater Wetlands Act indirectly affects water quality by regulating, draining and/or dredging activities that fall within any freshwater wetland. The Act calls for an inventory of freshwater wetlands throughout the State. DEC is responsible for preparing an official map of all wetlands over the statutory minimum size of 12.4 acres. According to the Act, the map is intended to aid the Department in determining what uses of wetlands are most compatible and in preparing minimum land use regulation. Local governments are also encouraged to draft minimum land use regulations.

When the inventory is completed a permanent regulatory program will go into effect. In the meantime, an interim permit program is in effect which prohibits anyone from conducting a "regulated activity" in a wetland

without obtaining an interim permit. (Authorized under Title 6, Official Compilation of Codes and Regulations, Part 662.) DEC determines whether or not a particular area is a wetland subject to regulations.

Local governments are permitted to impose stricter conditions or limitations on permits. The same political subdivisions also have the authority to suspend or revoke a license if the permittee has not complied with the conditions of the permit. Local governments also have the authority to establish programs for the protection of wetlands. A number of local governments have already passed local wetland permit laws.

Public Lands Law

The Office of General Services (OGS) has the responsibility for the general care and superintendence of all State land, upland and underwater, which is not vested in some other State department, division, bureau or agency. The Commissioner of General Services is generally empowered to issue leases, grant easements and licenses for dredging, bulkheads, fills and structures, pipelines, and cables, both underwater and aerial. However, under an amendment to the Public Lands Law, OGS no longer has responsibility for the licensing and regulation of the taking of sand, gravel or other materials found in underwater State lands bordering Erie County, most of Chautauqua County, and all of Long Island.

Dredging of all navigable waterways is performed by the State Department of Transportation and by the U.S. Army Corps of Engineers. The Department of Transportation is responsible for maintaining the 520 miles of the State Barge Canal System and connecting waters. It is estimated that 1.45 million cubic yards of dredged material is removed from this system yearly. In 1968, close to 30 million cubic yards of material was dredged from Lake Champlain and more than 100,000 cubic yards from the Hudson River.

Disposal of dredge material by pumping into lowland areas is not permitted. State lands are used for this purpose unless specific requests are received for fill material on private land.

3.3.6 Extractive Operations

3.3.6.1 Pits and Quarries

Magnitude of the Problem, Current Activity, Evaluation

Pollution problems from sand and gravel quarry operations are moderate.⁸⁶ New York State does not differentiate between regulating pits and quarries and mining activities. (Refer to section under mining.)

3.3.6.3 Brines from Oil and Gas

Magnitude of the Problem

Unplugged wells can be sources of pollution of water and are usually aesthetically displeasing. In some cases land has had to be condemned where dangerous conditions exist in connection with gas-saturated ground resulting from leaking wells. Residential lands have been involved.

Based on reports from operators concerning abandoned wells, at least 1500 wells need plugging right now. If proper field investigations could be conducted many more older ones would be discovered.⁸⁷

Current Activity, Evaluation

Under Title 3 of Article 23, ECL, the operator of a well that is unproductive or that becomes a non-commercial producer must obtain a permit from the Department and plug the well in a satisfactory manner. The Bureau of Minerals maintains surveillance of as many plugging operations as manpower permits. In cases where a well is not plugged and there is a well plugging and surface restoration bond in force, the bonding company is held responsible for funding the plugging operation. The State is empowered to take temporary possession of the land. The State then hires a contractor to plug under Departmental plugging standards and recovers the expended funds from the bonding company to the limits of the bond and from the operator if the bond is insufficient. This law applies only within the 3 mile limit.⁸⁸

Costs of plugging wells in older fields where there are no longer any drilling rigs have soared. It can cost more than \$8,000 just to move in a rig. Therefore it pays to do the plugging while a field is still somewhat active.

Moreover, there is a conflict between the mandated responsibility of getting wells plugged and budgetary realities. Even in the case where a bond is in force first instance funds would have to be used to plug the well and the expended funds recovered from the bonding company later. In the case where no bond is in force, the funds might never be recovered from a destitute owner. The Bureau has been unsuccessful in budgeting for the plugging of wells.

More than 200 wells were plugged under DEC supervision in 1973, although 494 permits for plugging were issued. In 1974-1975, the workload is estimated to be on the order of 350.⁸⁹

Also under Article 23 of the ECL, well density is regulated in oil or gas pools discovered after October 1, 1963. In the absence of a spacing order no well can be drilled closer than 1320 feet from any other producing oil or gas well completed in the same pool. After notice and public hearing,

the Department can establish spacing units for each pool if it finds these are necessary to prevent waste and to protect correlative rights. A spacing order shall also specify the procedure to be followed for compulsory integration of interests within the individual spacing unit if voluntary integration cannot be agreed upon within 90 days.⁹⁰

As authorized by Title 11 of Article 23, ECL, all State lands except State park lands are available for oil and gas leasing upon approval of the State agency having jurisdiction over the land in question. Areas are defined, maps constructed, placed for leasing, advertised for competitive bids and awarded to the highest responsible bidder.

Substantial acreages may be involved. For example nearly all DEC reforestation areas and game management areas in Chautauqua County have been leased, totaling about 18,000 acres, at \$6.67 an acre with a \$1.00 bonus fee. In Steuben County, a lease brought \$51.11 an acre. In 1976, more than 70,000 acres of State lands were under lease. In 1977-1978 it is estimated to be about 95,000 acres.

In 1977-1978 it is estimated that revenue from such leases will bring in \$450,000 or more to the State. Efforts by DEC in recent years to segregate these funds for use in plugging old wells have been rejected by the Division of the Budget.

There is some negative impact on the land. Although only a very small percent of the land is disturbed during operations, some temporary disturbance cannot be avoided. This disturbance is controlled by the agency having jurisdiction over the land through special clauses incorporated into the lease. After operations cease, the property must be left in a condition satisfactory to the agency.

Occasionally, some conflict develops between the goals of the agency having jurisdiction over the lands because of their natural desire to prevent disturbance of any kind and the fact that some temporary disturbance cannot be avoided in production and utilization of the natural resources of oil and gas so much in demand to fill our energy needs. However, these problems usually can be avoided by careful site planning.⁹¹

Drilling has been approved for the Lake Erie Basin, owned by the state of New York. The Bureau of Mineral Resources, DEC, will both develop the rules and regulations and draft an Environmental Impact Statement for this project before any activity on the Lake is allowed. The Division anticipates that stringent requirements will be drafted to ensure that a closed system operation will be carried out and that there are no pollution problems.⁹²

3.3.6.2 Mining

Magnitude of the Problem

The pollution problems from strip mining and metallic sub-surface mining in New York are moderate.⁹³

Current Activity, Evaluation

Environmental Conservation Law, Article 23, Title 27 directly controls surface mining in New York by requiring all public and private mining operations extracting over 1,000 tons of material within a 12-month period, including sand and gravel to have a permit to proceed from DEC. The permit application must include both a plan for the mining operation and a plan for the reclamation of the mined area to bring it to a condition compatible with its surroundings and encourage its future re-use. The plans are to be related to officially adopted local government land use plans and regulations. If a permit is granted, the applicant except for political subdivisions or municipalities must post a bond to assure compliance with the approved mined use plan. All 1800 operating mines in the State of New York have a permit or have submitted an abbreviated application with interim approval awaiting processing by DEC.⁹⁴ They are not all located in the basin area.

The Act also regulates mining practices by establishing standards for refuse, spoil, stockpiles, personal property, the treatment of haulage, grading and vegetation.

Under the law, reclaimed lands in mined areas must be put to productive use or to a condition which encourages such use. This end use can be farming, pasture, forestry, recreation, industrial, commercial, residential, solid waste disposal or any other acceptable use.

The Act also stipulates that each applicant furnish a reclamation bond or appropriate substitute as a prerequisite to the issuance of a mining permit. The bonding requirement assures that no additional derelict mine sites will mar the landscape. The bonding procedures include an allowance factor for inflation. The fees for the program are nominal. Fees range from \$50 - \$200 for initial, renewal and amendment applications. Unfortunately, they do not support the program where an estimated \$545 minimum permit fee would be necessary to provide such support.⁹⁵

DEC is taking steps to integrate the Mined Land Reclamation Law with review processes set up under the State Environmental Quality Review Act (SEQR).⁹⁶

Reclamation plans, with regard to water quality, are reviewed by DEC from a preventive viewpoint rather than a curative one. It is clear that the reclamation program is geared towards reclamation of the land, not water quality concerns.⁹⁷

The reclamation permit program requires that every permit be reviewed annually. This means every mine is inspected at least once a year. There are spot checks attempted from time-to-time. The inspections are conducted by DEC's regional staff. In many cases the regional staff is short of manpower to carry out the inspection. In these cases, staff members from other areas assist in the inspection. This leads to uneven inspections and

the possibility that certain items may be overlooked. Permits are reviewed through DER's regional clearinghouse. Unfortunately, the regional clearinghouse is also understaffed.⁹⁸

To assist small operators and local governments in the implementation of the Acts the Bureau of Mineral Resources has made an agreement with SCS to provide technical assistance.

Currently, there is no control over old abandoned mines and DEC does not contemplate developing controls for them. This is primarily because DEC cannot fund the current program. Leachates and runoff are also not addressed in this Act unless there is an obvious problem affecting adjacent property.⁹⁹

3.3.7 Recreation

Magnitude of the Problem

There has been no significant degradation of land and adjacent waters caused from recreational land uses.¹⁰⁰

The problems that do exist are localized and are related to specific types of activities -- i.e., overuse of different trails, hiking, snowmobiling, motorbikes. These problems do not occur throughout the year. They seem to be related to the seasonal nature of the type of recreational activity in question.¹⁰¹

Current Activity, Evaluation

Recreation in the State of New York must be divided into two categories, the Department of Environmental Conservation which has legislative authority to carry out and regulate recreation within the Adirondack and Catskill Parks and the State Office of Parks and Recreation which administers State parks in other areas of the State. Most of the State parks and the developed areas of the APA have extensive water quality facilities controlling lodges, campgrounds and other facilities provided for the public.¹⁰²

The State Wild Scenic and Recreational River Act authorizes DEC, the Adirondack Park Agency and municipal governments, where appropriate, to protect classified rivers from activities -- i.e., recreational uses affecting the stream banks.

Under the Act, DEC and APA are required by law to make and enforce regulations necessary to manage, protect, enhance, and control land use in a corridor (up to one mile wide outside of Adirondack Park and one-half mile inside) along rivers designated in the State system.

The sixteen rivers designated initially present little problem as all are within Adirondack Park where DEC has control on Forest Preserve and APA can tie in with existing private land master plan zoning and local government cooperative mechanisms.¹⁰³

The Stream Protection Law also provides authority to classify streams in terms of recreational uses. This Act requires that a permit be obtained for the crossing or use of the stream. Currently there is no monitoring or enforcement of the activities of the permits that are issued.

There should be a relationship established between this Act and the State Wild and Scenic Rivers Act.

New York does have regulations that prohibit snowmobile operations in areas where damages to vegetation and terrain may occur. However, the development of non-motorized zones to protect wildlife and other ecological systems, although being proposed in many areas, has not been extensively used. Use of snowmobiles in forest preserves is restricted to designated trails and prohibits their cross-country travel.¹⁰⁴

Existing laws and standards regulating sedimentation, pesticides, and herbicides can also provide controls.

With regard to pesticide use, refer to the section on agricultural areas. The same restrictions on licensing, use and application applies to pesticide use in recreational areas. With regard to private sewage disposal the same authorities and restrictions apply in recreational areas as found in the section on solid, liquid, deepwell disposal. The development of regulations regarding recreational activities does not seem to be a high priority issue compared to other land use activities affecting water quality.

3.3.8 Lakeshore and Riverbank Erosion

Magnitude of the Problem, Current Activity, Evaluation

It is difficult to determine whether lakeshore and river bank erosion is caused primarily from natural causes or by land use activities. The 208 program in New York is looking into the relationship of land use activities and natural erosion.

Under Chapter 839 of the Laws of 1974, Article 36 of the ECL, "Participation in Flood Insurance Program," the Department of Environmental Conservation has the ability to control lakeshore and riverbank erosion through its work in flood hazardous areas. However, the Department is primarily concerned with flood control work and any impact on water quality is indirect.

The Freshwater Wetland Act also provides controls. The same authorities and restrictions apply to lakeshore and riverbank erosion as found in the section on shoreland filling.

None of these controls are directed at controlling erosion. The passage of a sediment control act should consider how it could impact lakeshore and riverbank erosion. This category is also tied to the control of runoff, discussed earlier, and the adequate control of land use through zoning and subdivision authority. New York is attempting to address these issues as part of its 208 program.¹⁰⁵

3.3.9 Forestry

3.3.9.1 Timber Production

Magnitude of the Problem

Forestry activities are viewed as not generating significant pollution loads on surface water qualities and not noticeably affecting groundwater quarries. They appear to have a relatively low level of priority for management and control procedures. This is partially due to the lack of information on forestry on which to base results. If there are any problems they are localized.¹⁰⁶

Current Activity, Evaluation

The Forest Practice Act, the Environmental Conservation Law (9-0507), the Environmental Quality Bond Act (9-0717), and the Real Estate Property Tax Law all establish controls with regard to timber cutting in forested areas.

Forest Practice Act

The Forest Practice Act regulates timber cutting by establishing standards for good forestry practices which apply to private and public land. The Act establishes the Co-op Forest Management Program. The Act originally was passed to promote timber production. Only recently has the emphasis of the Act changed from production to looking at forests as multiple use areas which include water quality considerations. This is a voluntary program designed both to develop a management plan for a particular timberstand and provide technical assistance for the plan's implementation. There are approximately 12 million acres of private non-industrial commercial timberland in the State, 5 million of which are under some sort of management plan.¹⁰⁷

Assistance may involve the marking of timber, marketing assistance, reforestation, and silvi-cultural operations in immature standards. In order to receive assistance, the woodland owner must agree to follow a woodland management plan and comply with approved forest practice standards.

Through this Act, the Environmental Conservation Commissioner can establish forest districts, district forest practice boards in each district, and a State forest practice board. Each forest district board is responsible for providing woodland owners within the forest district with assistance. District forest practice boards consist of lay people appointed by the county legislatures. The District boards then send a representative to the State Forest Practice Board which is the advisory board to the Commission of the Department of Environmental Conservation.¹⁰⁸

In addition to the Forest Practice Act there are timber harvest guidelines. These guidelines were developed originally for the Adirondack Park Agency by the New York Section, Society of American Foresters. They are voluntary; however, they have been adopted by the industry and the DEC as

voluntary guidelines for timber harvesting. They were designed to prevent erosion and sediment control during harvesting procedures. A test study is underway in the APA to see if voluntary compliance is working. It is felt compliance is fairly good, largely because the guidelines are being pushed by various industry associations.¹⁰⁹

At the local level there are a few ordinances which control the cutting of trees. Those that do exist are designed to control growth in newly developing areas by requiring permits for trees of overdesignated trunk size before they may be cut. The laws are not water quality oriented but growth control oriented.

The Department of Environmental Conservation currently has 60 professionals working in the Forestry field with 35 technicians. It is felt that this is an insufficient number of technicians to provide technical assistance; rather 3 times the number of current technicians could be used.

It is anticipated that the 208 program could create additional needs through additional requirements.¹¹⁰ Additional controls on the timber industry will result in higher prices for the timber.

Environmental Conservation Law (9-0501-7)

The Environmental Conservation Law 9-0501 - 9-0507 also manages to regulate timber cutting through its authority to acquire and manage forest land. Under the Act, DEC is authorized to acquire land outside the Adirondack and Catskill Parks for reforestation and the production of timber and other forest products.

Counties, towns, cities, villages, school districts, and other political subdivisions of the State are also authorized to acquire lands for forestry purposes under this Act.

Environmental Quality Bond Act

The Environmental Quality Bond Act allocates funds to DEC to establish a program that would acquire land by purchasing, or encouraging donation of development rights to consolidate State ownership and to provide better access to State lands. Forest land acquired under this program is subject to timber cutting and harvesting guidelines and regulations.

Real Estate Property Tax Law

The Real Estate Property Tax Law, Section 480-A provides DEC with the authority to approve management plans for privately-owned forest lands. Under the Act, owners of forest land apply to DEC for forest land certification. If certified, the owner may file for a tax exemption with the local assessors and receive preferential assessment treatment in return for maintaining the land in accordance with the provisions of the approved management plan. Tracts are assessed upon the basis of forest land value per acre, as determined annually by the State Board of Equalization and Assessments.

3.3.9.2 Woodland Grazing

Woodland grazing is not considered to generate a serious water quality problem in New York State. Changing farm practices have contributed to the decrease in the number of cattle grazing on woodlands and thus their impact on water quality. The woodland grazing that does continue is primarily in marginal farm areas. As farm costs increase these farms are financially eliminated and less woodland grazing occurs.¹¹¹

3.3.9.3 Wildlife Management

Magnitude of the Problem, Current Activity, Evaluation

The Fish and Wildlife Management Act authorizes the control of wildlife management in forested areas. Under this Act, DEC is provided with the authority to regulate, develop and administer programs for fish and wildlife management in cooperation with private landowners. The legislation is not specifically directed toward water quality controls. Any benefits denied through DEC's activities are indirect.

DEC activities relating to the propagation and management of wildlife fall within five program areas -- environmental protection, environmental management, species management, public use, and extension services.¹¹²

The Act establishes A State and Regional Fish and Wildlife Management Board to review the status of fish and wildlife resources in the area and to determine if the programs are operating properly.

3.3.9.4 Recreation

Refer to the section on recreational areas. All the same restrictions and conditions apply in forest areas as well.

FOOTNOTES -- CHAPTER 3

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5. Ibid., page 43.
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17. Reed, page 11.
18. Ibid., page 13
19. Ibid., page 11.
20. Interview with N.G. Kaul.
21. Interview with Louis Conera, Jr.

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29. Ibid., page 27.
30. Interview with Charles Frommer, Bureau of Pesticides and Control.
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33. Ibid.
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43. Interview with Louis Concora, Jr.
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51. Ibid., page 5-3.
52. Ibid., page 2-37.
53. Ibid., pages 2-33, 2-34.
54. Ibid., page 2-36, 2-49.
55. Ibid., page 2-52.
56. Ibid., page 3-1.
57. Ibid., page 3-2.
58. Ibid., page 3-9.
59. Ibid., pages 3-10, 3-11.
60. Ibid., pages 2-41, 2-42.
61. Ibid., page 2-42.
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64. Ibid., pages 2-43, 2-44.
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70. Ibid.
71. Ibid.
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83. Ibid., page 16.
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85. Ibid.
86. Reed, page 20.
87. Morrison, Charles, Jr., page 95.
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89. Morrison, Charles, Jr., page 95.
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91. Morrison, Charles, Jr., page 94.
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93. Reed, page 20.
94. New York State Department of Environmental Conservation, OPDPR, page 25.
95. Interview with John Dragonetti, DEC, Bureau of Mineral Resources.
96. Morrison, Charles, Jr., page 98.
97. Interview with John Dragonetti, DEC, Bureau of Mineral Resources.

98. Ibid.
99. Ibid.
100. Reed, page 20.
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CHAPTER 4

FRAMEWORK ANALYSIS

4.1 GENERAL

This chapter presents the Contractor's analysis of the legislative framework for the State of New York. The analysis, based on the evaluations of land use activities presented in Chapter 3, identifies the strengths and weaknesses in the framework and the future actions which could correct them. The discussion covers each land use activity in terms of the problem, the current framework, the strength or weakness and the possible future actions.

4.2 ANALYSIS

4.2.1 Urban Areas

4.2.1.1 Construction Site Runoff

In New York agencies and boards are authorized to control site runoff. Generally they focus their efforts on problems other than on strict water quality concerns. As a result, actions taken by these groups only indirectly impact pollution caused from site runoff.

Cities, towns and villages have the power, through their general authority, to directly control site runoff. Some localities have adopted sediment control ordinances but none have included enforcement measures. Because there are no enforcement powers built into the ordinances, they become nothing more than mere guidelines. To give saliency to the ordinances, the power of enforcement must be incorporated in them.

DEC has review power through the State Environmental Quality Review Law to regulate construction site runoff. The Department is responsible for reviewing environmental impact statements.

By law each environmental impact statement must identify problems generated by site runoff and describe steps that can be taken to mitigate these problems. Unfortunately, SEQR, like the municipal sediment control

ordinances, lacks enforcement powers. In essence, DEC's review power is restricted to merely approving or rejecting a project rather than being able to change an action to mitigate a problem. It is the Contractor's understanding that the problems associated with site runoff are being studied under the 208 program. It remains to be seen whether or not this study will develop any recommendations on the subject.

There has been some discussion of drafting a sediment control act which would provide, among other things, authority to control construction site runoff. Such an act should require: (1) areawide plans to be developed which would identify areas that have a high potential for erosion, and (2) site specific plans. The site plans would have to be approved before any land disturbing activities could be conducted. It was also suggested that inspection procedures and enforcement authority be included.

4.2.1.2 Stormwater Runoff

The primary stormwater problem is combined sewers. There are no controls that cover the runoff of stormwater prior to its reaching the stormwater collection or combined sewer system. In addition, the issue of the best way to handle stormwater requires additional research before technical remedies can be identified. The areawide and non-designated 208 studies are applying their resources in the development of a technical solution.

An immediate action should be the continuation of the technical studies. These should include research into the impacts of different types of land uses and the development of design and engineering techniques which will reduce the amount of runoff. Upon the completion of these studies, recommendations should be implemented.

4.2.2 Agricultural Areas

4.2.2.1 Pesticides

Recently, New York instituted a mandatory training program for certifying pesticide applicators. The program takes a comprehensive approach to pesticide control. Its course materials far exceed EPA requirements. Although the program is not specifically focused on preventing the deterioration of the water's quality, the control of pesticides has had a positive effect on maintaining the quality of the water. The program could serve as a model.

4.2.2.2 Feedlot Operations

Animal feedlots do not present serious water quality problems in New York. Codes of good practice or "good practice guidelines" have been developed to assist the farmer in disposing of agricultural waste. At this time the guidelines are only voluntary. Passage of a more comprehensive set of regulations should be the first action, followed by the necessary resources to implement the program.

4.2.2.3 Erosion from Farming Practices

Currently the sediment problems generated from farming practices are not well documented. The State, additionally, lacks any direct controls with which to deal with the problem. It is anticipated that the 208 program will look at New York's sediment problems in depth and recommend methods to control them.

In the interim the Soil and Water Conservation District's legislative authority provides planning powers that can affect soil erosion. Under the law individuals with a rural holding of over 25 acres must prepare a conservation plan for review of their local SWCD. Unfortunately there are no provisions which penalize farmers for non-compliance. We are left with a weakened authority.

Water resources planning boards have the authority to control erosion from farming practices, but their involvement has been minimal to date. This is largely due to the lack of funds.

The contractor suggests the inclusion of an enforcement provision in the Soil and Water Conservation District Law or that a share feature be added in so that landowners would not receive funds unless proper planning was accomplished. Passage of a sediment control act like the one discussed for construction site runoff (Section 4.2.1.1) is also recommended. In order to make water resources planning boards viable entities to deal with erosion problems, financial assistance must be forthcoming.

4.2.3 Solid, Liquid and Deepwell Disposal

The landfill permit program recently implemented in New York has built in regulatory powers to control the construction and operation of solid waste facilities and thus prevent further degrading of water quality. Under the program a permit must be secured from DEC to construct or operate a facility. During the initial start-up of the program there will be a manpower shortage. However, this will not be the case in later phases of the program. There is no operator certificate program. The contractor urges that a mandatory training program be implemented to improve the level of management and operational experts.

New York has begun to look for alternatives to the traditional approach of continually enlarging disposal facilities to meet growing demands. The Contractor agrees with the recommendations of the Program Plan for Solid Waste Management in New York State published by the New York State Department of Environmental Conservation which encourages resource recovery as one alternative disposal method.

1. Encourage at-source waste reduction methods. Manufacturing processes and consumer habits should be directed toward decreasing the generation of wastes. A national packaging policy should be developed to minimize excessive use of material and enhance the reuse or recovery of resources. Proposed legislation will be prepared for consideration by the State Legislature if no Federal legislation is enacted.
2. Incorporate resource recovery techniques into solid waste management systems. Existing facilities should be modified where feasible to include resource recovery methods. New facilities should be designed and constructed to optimize resource recovery benefits. Regional processing and disposal centers should be developed where market outlets are available or where new industries will be created.
3. Provide State Assistance for construction of resource recovery facilities. As previously described, the major portion of the \$175 million authorized in the Environmental Quality Bond Act for solid waste management projects will be applied to resource recovery projects. The Division of Solid Waste Management will continue to administer this grant program. Mechanisms to maintain momentum when available funds are exhausted will be evaluated and proposed for consideration by the State Legislature.
4. Promote utilization of recovered resources. State and local government purchasing practices will be reviewed so that specifications for materials and services do not discriminate against recovered resources, but encourage their use where possible. The Department of Environmental Conservation will promote and participate in research and development projects that will advance resource recovery technology. The Division of Solid Waste Management, in cooperation with other agencies and industry, will conduct studies to determine market potentials for recovered resources; the development of new markets will be promoted, as well as expansion of existing markets without dislocation or displacement.

Additional legislation is also needed to:

1. Require local governments to provide solid waste disposal or resource recovery service. Currently localities are merely empowered to provide such services. Consequently many fail to make adequate provisions for disposal.
2. Enhance intergovernmental cooperation in establishing resource recovery facilities serving multi-county areas. Currently, local authorities are unable to incur a joint debt; consequently, they are unable to provide services in resource recovery districts crossing district boundaries.

4.2.4 Additional Institutional Improvements

The State Environmental Quality Review Law (SEQR) requires an environmental assessment and/or impact statement on any major actions which allow for water quality issues to be addressed. However, the Act has no enforcement measures built in. To make the law effective enforcement powers must be included.

4.2.5 Additional Technical Studies

The following areas require additional technical study prior to the determination of the type and need, if any, of controls. These areas are:

Fertilizers,
Transportation corridors,
Liquid sewage sludge,
Shoreland filling.

4.2.1 Additional Legislative Studies
 The following studies should be directed toward
 - on driver behavior in areas which are
 The Department of Transportation (DOT) studies on driver
 mental assessment studies which allow
 for roadway design and construction
 ment assessment studies which allow
 be included in the legislative process.

4.2.2 Additional Technical Studies
 The following studies should be directed toward
 determination of the type and extent of construction
 to be required in areas which are
 to be developed. The Department of
 Transportation should be directed to
 conduct studies in areas which are
 to be developed. The Department of
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State and local governments should be directed to
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 to be developed. The Department of
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 to be developed. The Department of
 Transportation should be directed to
 conduct studies in areas which are
 to be developed.

- Additional legislative studies are:
1. Studies which are directed toward
 the development of areas which are
 to be developed. The Department of
 Transportation should be directed to
 conduct studies in areas which are
 to be developed.
 2. Studies which are directed toward
 the development of areas which are
 to be developed. The Department of
 Transportation should be directed to
 conduct studies in areas which are
 to be developed.

General Municipal Law,
 Section 2292
 Memorandum of Understanding
 between NY DOT and NY DEC
 Particulate Law and Regulations
 NY Stormwater Protection Law
 Public Lands Law, Article 2,
 3, 5, 7
 Real Estate Property Tax Law
 Soil and Water Conservation
 Districts Law
 Towns Enabling Legislation
 Title 5 DECRRS

Enabling Legislation, cities, towns,
 counties
 Transportation
 DEC
 DEC
 General Services
 DEC

PART II

SUMMARIES OF LEGISLATION

2.1 GENERAL

This Chapter presents a summary of the legislative authority for control of land use activities that may cause water pollution. Where information was available, the legislation is summarized by Act with the implementing agency, affected land use activity, purpose, provisions and administrative responsibility identified. Where the contractor is unable to secure information allowing summarization, the acts are listed.

The summaries are presented in order of ECL code and then alphabetic order. A listing follows:

DEC General Enabling Legislation	ECL Section 3-0301
Timber Production	ECL Section 9-0301-7
Regional Water Resources Planning Board	ECL Article 15, Title 3
Oil and Gas	ECL Article 23, Title 3, 11, 13
Mined Land Reclamation	ECL Article 23, Title 27
Freshwater Wetlands Act	ECL Article 24, Title 6
Tidal Wetlands Act	ECL Article 25
Solid waste, local, county and regional health departments	ECL Article 27, Title 3, 6
Solid Waste	ECL Article 27, Title 2
County and Regional Management Councils	ECL Article 47
Enabling Legislation	
Agricultural Districts	Agriculture and Market Law
Agricultural Resources Commission	Agricultural Resources Commission Act
	Chapter 426, 660
New York State Office of Parks and Recreation	Chapter 717, Chapter 887
New York State Soil and Water Conservation Committee	County Enabling Legislation
Committee	Environmental Quality Act
DEC - Recreation	Forest Practice Act and
Forest Service	Standards, Timber Harvesting Guidelines

CHAPTER 5

RELEVANT LEGISLATION

5.1 GENERAL

This Chapter presents a summary of the legislative authority for control of land use activities that may cause water pollution. Where information was available, the legislation is summarized by Act with the implementing agency, affected land use activity, purpose, provisions and administrative responsibilities identified. Where the contractor is unable to secure information allowing summarization, the acts are listed.

The summaries are presented in order of ECL code and then alphabetic order. A listing follows:

ECL Section 3-0301	DEC General Enabling Legislation
ECL Section 9-0501-7	Timber Production
ECL Article 15, Title 2	Regional Water Resources Planning Board
ECL Article 23, Title 3, 11, 13	Oil and Gas
ECL Article 23, Title 27	Mined Land Reclamation
ECL Article 24, Title 6	Freshwater Wetlands Act
ECL Article 25	Tidal Wetlands Act
ECL Article 27, Title 3, 6	Solid waste, local, county and regional health departments
ECL Article 27, Title 5	Solid Waste
ECL Article 47	County and Regional Management Councils Enabling Legislation
Agriculture and Market Law	Agricultural Districts
Agricultural Resources Commission Act	Agricultural Resources Commission
Chapter 426, 660	New York State Office of Parks and Recreation
Chapter 727, Chapter 887	New York State Soil and Water Conservation Committee
County Enabling Legislation	Counties
Environmental Quality Act	DEC - Recreation
Forest Practice Act and Standards, Timber Harvesting Guidelines	Forest Service

General Municipal Law, Section 239X	Enabling Legislation, cities, towns, counties
Memorandum of Understanding between NY DOT and NY DEC	Transportation
Pesticide Law and Regulations	DEC
NY Streams Protection Law	DEC
Public Lands Law, Article 2, 3, 6, 7	General Services
Real Estate Property Tax Law	DEC
Soil and Water Conservation Districts Law	SWCD
Towns Enabling Legislation	Cities, villages
Title 6 OCCRRNYS	DEC

POLITICAL JURISDICTION: New York

Title or Reference: Environmental Conservation Law, Section 3-0301

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: General enabling legislation, all categories

Purpose:

To establish the Department of Environmental Conservation to unify all the environmental programs in the State.

Provisions:

1. Empowers the Commissioner of DEC to coordinate and develop policies, planning and programs related to the environment of the State and regions.
2. Empowers the Commissioner of DEC to promote and coordinate management of water, land, fish, wildlife and air resources to assure their protection, enhancement, provision, allocation, and balanced utilization consistent with the environmental policy of the State and take into account the cumulative impact upon all of such resources in making any determination in connection with any license, order, permit, certification or other similar action or promulgating any rule or regulation, standard or criterion.
3. Empowers the Commissioner of DEC to provide for the protection and management of marine and coastal resources and of wetlands, estuaries, and shorelines.
4. Empowers the Commissioner of DEC to encourage industrial, commercial, residential and community development which provides the best usage of land areas, maximizes environmental benefits and minimizes the effects of less desirable environmental conditions.
5. Empowers the Commissioner of DEC to provide for the prevention and abatement of all water, land, and air pollution including but not limited to that related to particulates, gases, dust, vapor, noise, radiation, odor, nutrients, and heated liquids.
6. Empowers the Commissioner of DEC to prevent pollution through the regulation of the storage, handling, and transport of solids, liquids, and gases which may cause or contribute to pollution.

7. Empowers the Commissioner of DEC to promote restoration and reclamation of degraded or despoiled areas and natural resources.

Administrative Responsibilities:

The Department of Environmental Conservation is responsible for land resources planning and management in the State of New York.

POLITICAL JURSDICTION: New York

Title or Reference: Environmental Conservation Law, 9-0501 and 0717

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Timber Production, Watershed Protection, Wildlife Management, Recreation Use, and other kindred activities.

Purpose:

To establish and maintain forests for watershed protection and the production of timber and other forest products for recreation and other purposes.

Provisions:

1. Authorizes the DEC to acquire lands outside the Adirondack and Catskill Park which are adapted for reforestation and the establishment and maintenance of forests for watershed protection, the production of timber and other forest products and for recreation and other purposes.
2. Provides that such reforestation areas, which must consist of at least five hundred acres of contiguous lands may be acquired by gift, purchase, or appropriation.
3. Provides that a county, city, town, village, school district or any other political subdivision of the State may acquire lands by purchase or gift to use for forestry purposes.

Administrative Responsibilities:

The Department of Environmental Conservation is responsible for acquiring and managing forest land under ECL 9-0501. Section 9-0717 provides similar authorization to counties, cities, towns, etc., with technical forestry assistance available from DEC.

POLITICAL JURISDICTION: New York

Title or Reference: Environmental Conservation Law, Article 15, Title 2

Implementing Agency: Regional Water Resources Planning Board

Affected Land Use Activities: Urban areas; agricultural areas; liquid, solid, and deepwell disposal; shoreland filling; extractive operation; recreational areas

Purpose:

To complete comprehensive plans for managing and developing the water and related resources of New York State river basins.

Provisions:

1. Establishes eleven regional water resources planning boards.
2. Details the aspects of water development and management that should be included in the plan. They include the following: flood plain management and prevention; irrigation; water quality management; water based recreation; navigation; hydropower; fish and wildlife management.

Administrative Responsibilities:

The Board, with the assistance of the staff from the Department of Environmental Conservation, is responsible for preparing a comprehensive water and related resources plan for the region.

POLITICAL JURISDICTION: New York

Title or Reference: Environment Conservation Law, Article 23, Title 3,
Title 13, Title 11

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Brines from Oil and Gas Fields

Purpose:

To protect soil and water resources from oil and gas wastes.

Provisions:

1. Regulates well density in oil or gas pools discovered after October 1, 1963.
2. Prohibits the drilling of any well closer than 1,320 feet from any other producing oil or gas well completed in the same pool in absence of a spacing order.
3. Allows DEC to establish spacing units for each pool, after notice and public hearing, if it finds these are necessary to prevent waste and to protect correlative rights.
4. Requires a spacing order to specify the procedure to be followed for compulsory integration of interests within the individual spacing unit if voluntary integration cannot be agreed upon within 90 days.
5. Requires the operator of a well that is unproductive or that becomes a non-commercial producer to obtain a permit from DEC to plug the well.
6. Empowers the State to take temporary possession of the land where a well is not plugged, plug the well and secure recovering of expended funds from the owner or operator of the well.
7. Holds the bonding company responsible for funding a plugging operation, to the bond limits, in the case where a well is not plugged and there is a well plugging and surface restoration bond in force.
8. Requires any well operator to obtain a permit to store gas or liquified petroleum gas in an underground rock reservoir or cavern unless such storage operation had commenced prior to October 1, 1963 and had not been subsequently abandoned. The permit is conditioned upon a proper plan for such facility.
9. Makes available all State lands, except State park lands, for oil and gas leasing upon approval of the State agency having jurisdiction over

POLITICAL JURISDICTION: New York

Title or Reference: Environmental Conservation Law, Article 23, Title 27

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Mining

Purpose:

To foster and encourage the development of an economically sound and stable mining and mineral industry, and the orderly development of domestic mineral resources and reserves necessary to assure satisfaction of economic needs compatible with sound environmental management practices; to provide for the conservation, development, utilization, management and appropriate use of all the natural resources of such areas for compatible multiple purposes, and to prevent pollution.

Provisions:

Part 421

1. Requires all public and private mining operations extracting over 1,000 tons of materials within a twelve-month period, including sand and gravel, to have a permit to proceed from DEC. An operator may include multiple uses under one permit if they are located within the confines of a geographical region of the Department.
2. Details the requirements for obtaining a mining permit and the DEC procedure for approving or denying an application.
3. States that a mining permit may be obtained for a period of one to three years.
4. Allows a mining permit to be altered or amended for a change in the mined land use plan by filing a written request with DEC indicating the nature and substance of the change.
5. Provides the DEC with the authority to revoke or suspend a permit upon finding a violation of any terms of the permit.

Part 422

6. Requires every applicant for a mining permit to submit a mined land use plan, which outlines the mining property and the land affected, the proposed land use and reclamation plans, how the plans relate to officially adopted county and local plans, and the mining methods to be used to prevent pollution.
7. Details the information the land use and reclamation plans should include.

8. Describes the standards established by DEC with regard to refuse, spoil, stockpiles and personal property, the treatment of haulways, draining and water control, water impoundments, grading and vegetation. An applicant's method of reclaiming the land should be consistent with the above standards.
9. Requires permit holders to file reports relative to the reclamation program.

Part 423

10. Requires each applicant to furnish a reclamation bond or appropriate substitute as a condition precedent to the issuance of a mining permit. Upon satisfactory completion of the mined land use plan, the bond shall be released. If the reclamation plan is not approved, the Department may call upon the surety to complete the reclamation as provided for in the

Part 424

11. Makes any person who violated any provision of Title 27 subject to a civil penalty of not more than \$1,000 for each act or omission constituting a violation for each day that such violation continues.

Administrative Responsibilities:

The Department of Environmental Conservation is responsible for approving plans for mining operations and reclamation of mined areas. The Department is also responsible for issuing mining permits.

POLITICAL JURISDICTION: New York

Title or Reference: Environmental Conservation Law, amended by Chapter 654, Laws of 1977. Article 24; Title 6, Official Compilation of Codes, Rules and Regulations, Part 662; Freshwater Wetlands Act

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Lakeshore and Riverbank, Erosion, Fish, Wildlife, Recreation, Agriculture, Forest, Urban, Mining, Transportation

Purpose:

To protect freshwater wetlands

Chapter 614, Article 24, Title 3

1. Requires the Commissioner to conduct a study that identifies and maps all wetlands over the statutory minimum size of 12.4 acres, as well as smaller wetlands which the Commissioner determines to be of "unusual local importance," not covered under the law.

Title 5

2. Calls upon each local government to adopt a wetlands protection law at least as restrictive as the State law and regulate wetlands within its boundaries, with DEC providing technical assistance and performing monitoring activities to ensure compliance with the State law. If a local government does not want to participate, does not have the technical capacity, or fails to implement the program effectively, the county can carry out the program. If the county refuses, or operates the program unsatisfactorily, regulation would revert to DEC.

Title 7

3. Stipulates that after issuance of the official wetlands map any person desiring to conduct, on regulated activities, freshwater wetlands, must obtain a permit. Activities subject to regulation in any form include: draining, dredging, excavation, removal of soil, mud, sand, shells, gravel or other aggregate from any freshwater wetland, either directly or indirectly; and any form of dumping, filling, or depositing of any soil, stones, sand, gravel, mud, rubbish, or fill of any kind, either directly or indirectly; erecting any structures, roads, the driving of pilings, or placing of any other obstructions whether or not changing the ebb and flow of the water; any form of pollution, including but not limited to, installing a septic tank, running a sewer outfall, discharging sewage treatment effluent or other liquid wastes into or so as to drain into a freshwater wetland; and any other activity which substantially impairs any of the several functions served by freshwater wetlands or the benefits derived therefrom which

are set forth in section 24-0105 of this article. These activities are subject to regulation whether or not they occur upon the wetland itself, if they impinge upon or otherwise substantially affect the wetlands; provided, however, that no regulation shall apply to any area more than one hundred feet from the boundary of such wetland or any such lesser or greater distance therefrom as determined by the appropriate local government.

4. Excludes the activities of farmers and other landowners in grazing and watering livestock, making reasonable use of water resources, harvesting natural products of the wetlands, selectively cutting timber, draining land or wetlands for growing agricultural products and otherwise engaging in the use of wetlands or other land for growing agricultural products from regulated activities and requiring a permit.
5. Requires any person proposing to conduct or cause to be conducted a regulated activity upon any freshwater wetland, to file an application for a permit with the clerk of the local government having jurisdiction or the department, as the case may be; all in such form and with such information as the commissioner may prescribe.
6. Provides the local government with the authority, when granting a permit to impose conditions or limitations. The local government also has the authority to suspend or revoke a permit if it finds that the applicant has not complied with any of the conditions or limitations set forth in the permit.

Title 9

7. Provides authority to local governments to establish a program for the protection of wetlands whereby the Commission may enter into agreements with any city, town, village or county, or with an owner of freshwater wetlands to preserve and maintain areas in their natural state.
8. Requires the Commissioner, upon completion of the freshwater wetlands map, to determine what uses of wetlands are most compatible and prepare minimum land use regulations to permit only such compatible uses. Local governments are to submit minimum land use regulations to the Commission for approval. If the local government's regulations fail to meet the Commissioner's approval then he shall frame appropriate regulations for the area.

Title 11

9. Establishes an appeals board known as the freshwater wetlands appeal board, with the power to adopt, promulgate, amend or rescind suitable procedural rules and decisions by local governments.

Title 13

10. Provides the Commissioner, his agent or employees with the authority to enter upon lands or waters for the purpose of investigating, surveying, and examining activities.

ly adopted county and local plans, and the mining methods to be used to prevent pollution.

7. Details the information the mining and reclamation plans should include.
8. Describes the standards established by DEC with regard to the treatment of: mine perimeters, materials generated by mining, haulways, potential source of pollution and of all aspects of mining as they affect the property and people of the state, and in addition, to the disposition of materials; treatment of haulways; drainage; water impoundments, grading and revegetation which are required during reclamation. A reclamation schedule is also required. The operator is allowed two years in which to complete reclamation.
9. Requires permit holders to file reports relative to the reclamation program.

Part 423

10. Requires each applicant to furnish a reclamation bond or appropriate substitute as a condition precedent to the issuance of a mining permit. Upon satisfactory completion of reclamation, the bond shall be released. If the applicant defaults in the performance of reclamation, the Department may call upon the surety to complete the reclamation as provided for in the bond.

Part 424

11. Provides reference to enforcement provisions of ECL, which are applicable for violations of Title 27 and associated rules and regulations.
12. Allows access to mines and mine records for the purpose of ascertaining compliance with Title 27, time conditions of the permit, and the rules and regulations.

Part 425

13. Makes any person who violated any provision of Title 27 subject to a civil penalty of not more than \$1,000 for each act or omission constituting a violation for each day that such violation continues.

Part 426

14. Describes time hearing process relative to actions taken by the Department to refuse to renew, to suspend or to revoke a mining permit, as well as to those concerning the imposition of penalties.

Administrative Responsibilities:

The Department of Environmental Conservation is responsible for approving plans for mining operations and reclamation of mined areas. The Department is also responsible for issuing mining permits.

POLITICAL JURISDICTION: New York

Title or Reference: Environmental Conservation Law, Article 25, Tidal Wetland Act (Chapter 790, Laws of 1973) Several Amendments

Implementing Agency: Department of Environment Conservation

Affected Land Use Activities: Lakeshore and Riverbank Erosion Fish, Wildlife, Recreation, Agriculture, Forest, Urban, Mining, Transportation

Purpose:

To preserve and protect tidal wetlands, and prevent their despoilation and destruction, giving due consideration to the reasonable economic and social development of the State.

Provisions:

1. Requires anyone wanting a permit to alter a tidal wetland or area adjacent to a tidal wetland to apply for a permit from the DEC. More specifically, permits are required for: (a) any form of draining, dredging, excavation or removal, either directly or indirectly, of soil, mud, sand, shells, gravel or other aggregate; (b) any form of dumping, filling or deposition, either directly or indirectly, of any soil, stones, sand, gravel, mud, rubbish or fill of any kind; (c) the erection of any structures or construction of any roads; (d) the driving of any pilings or placing of any other obstructions, whether or not changing the ebb and flow of the tide; (e) any form of pollution, including, but not limited to, installing a sewage septic tank, cess-pool, leach field or seepage pit, running a sewer outfall, discharging sewage effluent or other liquid wastes into or so as to drain into a tidal wetland and the use of any pesticide or herbicide; (f) installation of a dry well, stormwater sewer, retention basin, filter, open swale or pond for drainage or runoff control purposes; and (g) the operation of motor vehicles, including air boats and all other all-terrain vehicles, within a tidal wetland (except for educational or scientific research purposes).
2. Requires an inventory to be conducted that identifies approximately 25,000 acres of tidal wetlands on the Atlantic Coast, Long Island Sound, and Hudson River up to the Tappan Zee Bridge.
3. Empowers the Commissioner of Environmental Conservation to regulate the use of areas formerly occupied by tidal wetlands. This could involve the Department in areas long developed with intensive uses although this probably is not the intent of the act.

Administrative Responsibilities:

The Department of Environmental Conservation, Office of Environmental Analysis, Permit Section, is responsible for approving permits. Final rules and regulations with regard to the administration of the permit system have been adopted.

Part 662, Title 6, Official Compilation of Codes, Rules and Regulations

13. Authorizes that the interim permit program go into effect in September, 1975 and states that no one may conduct a regulated activity (such as dredging, filling and polluting) in a wetland without obtaining an interim permit. DEC determines whether or not a particular area is a wetland subject to regulations. The permanent regulatory program goes into effect as the maps are filed in each county.

Administrative Responsibilities

The Department of Environmental Conservation is responsible for preparing the maps, administering the permit program and freshwater wetlands preservation program, establishing minimum land use regulations and promulgating all necessary rules and regulations with regard to the Acts.

POLITICAL JURISDICTION: New York

Title or Reference: Environmental Conservation Law 27-0301, Title 3, 6
New York ERR 364

Implementing Agency: State, County, Regional or Local Health Departments

Affected Land Use Activities: Solid Waste

Purpose:

To prevent contamination of ground or surface waters to a condition that would be detrimental to growth of vegetation.

Provisions:

Article 27, Title 3

1. Prohibits any person from engaging in the business of cleaning septic tanks or cess pools or marina sanitary waste-holding facilities, scavenging or disposing of industrial process waste products, or otherwise removing or disposing of solid or liquid wastes from domestic sewer systems and treatment facilities or from waste-producing operations of factories or commercial establishments without first obtaining a certificate of registration from the Commissioner of Environmental Conservation as hereinafter provided. A person shall be considered to be engaged in business for the purposes aforesaid if he holds himself out as capable of performing and performs such services for others for hire, or if he disposes of such waste products as part of usual industrial operations.
2. Requires that an application for a certificate of registration be made to the Commissioner on a form prescribed and furnished by him, indicating the mechanical and other equipment, holding tanks and vehicles used or to be used by the applicant, and the place or places where and the manner in which the applicant will finally dispose of waste products into the waters or land areas, private or public, and such other information as the Commissioner deems necessary. If the Commissioner, upon review of such applications, determines that the proposed method of transportation and the place or manner in which the waste product is to be ultimately discharged into the waters or land areas will be detrimental to or substantially damage or pollute the environment or natural resources of the State, he may refuse the issuance of such certificate of registration or impose conditions on the issuance thereof so as to adequately protect against unreasonable defilement or degradation of the natural resources of the State.
3. Requires registrant to make an annual report to the Commissioner of Environmental Conservation, indicating the number and type of installations emptied or cleaned, the volume and nature of waste products disposed of, and the place and manner in which such waste products were

finally disposed, and such other information as the Commissioner may require.

4. Requires that the number of the certificate of registration be displayed on the cleaning or holding tank equipment of the registrant.
5. Stipulates that registration shall be made or renewed annually. The fee for such certificate of registration shall be twenty-five dollars, payable annually with the application. A re-registration or renewal of the application for registration may be denied by the Commissioner for failure of the applicant to properly report as provided in subdivision (4) hereof.
6. States that any person violating the provisions of the law or the rules and regulations of the Commissioner promulgated pursuant thereto shall be guilty of a misdemeanor and punishable by a fine not to exceed one thousand dollars for each violation. Each separate transportation or disposal act shall constitute a separate violation.
7. Provides the Commissioner with the authority to suspend or revoke any certificate of registration upon proof that the registrant has been found guilty of a misdemeanor in the violation of the provisions of this section, or if the Commissioner determines, after hearing, that the registrant has violated the provisions of this section or the rules and regulations implementing the law.

Rules and Regulations - Septic Tank Cleaner and Industrial Waste Collector Registration (Section 75.5.1) ECL 27-0301

8. Requires that all applications be submitted to the regional office having jurisdiction over the waste disposal area or waste receiving station used by the applicant. If an applicant disposes of collected wastes at multiple locations, the application shall be submitted to the regional office having jurisdiction over the facility receiving the largest portion of collected wastes. Persons utilizing waste disposal areas or waste receiving stations located within the state shall submit initial applications to the department at Albany, 12201.
9. Stipulates that all persons currently engaged in collecting and transporting such wastes must submit an application for a certificate of registration within 30 days after adoption of these rules and regulations. All persons who begin operations to collect and transport such wastes after said adoption shall submit an application for a certificate of registration at least 30 days prior to the anticipated date of initiating operations.
10. Requires that all applications be on forms provided by the Department. The Department may also require such plans, reports and other data as are necessary to determine whether the disposal facility is suitable and whether the proposed method of operations is acceptable.

11. Requires that applications for renewal of the certificate of registration be submitted at least 30 days in advance of the date of expiration and that each application for renewal of the certificate of registration shall be accompanied by an annual report on forms provided by the Department.
12. Provides that at the discretion of the Department, separate applications may be required when a person collects and disposes of more than one type of waste and employs different disposal methods, in which case, one registration fee will cover all applications.
13. Stipulates that a hearing may be held, after 10-day notice to a registrant doing business as described in these rules and regulations, at a time and location specified by the department to determine whether such person has collected and/or disposed of wastes not specified on the required application(s), or has altered the method or location of disposal as specified on the application(s), or has not complied with conditions imposed by the department, upon the use of a disposal facility, or has not received approval to modifications to the application.

Administrative Responsibilities:

The Commissioner of the Department of Health is responsible for making rules and regulations with regard to carrying out and enforcing the law. Delegated regional, district or local county offices of the State Department of Health or local health department are responsible for issuing and reviewing the certificates of registration and enforcing the law.

POLITICAL JURISDICTION: New York

Title or Reference: Environmental Conservation Law, Article 27, Title 5

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Solid Waste

Purpose:

To provide for a unified regulatory framework in the State to assure that solid waste management is conducted in a safe, efficient, economic, and environmentally sound manner.

Provisions:

1. Requires that any new solid waste management facility sites be approved by DEC. Detailed engineering plans must be submitted and approved for all new facilities with eventual re-use of a site a major consideration in the design review process.
2. Assists counties in selecting appropriate sites through the use of a special computer program. Possibilities for improving this program by tying it in with natural resources inventory and environmental planning systems should be expected.
3. Provides authority for DEC to promulgate rules and regulations without the need of public hearing as an interim measure until more detailed solid waste management facility rules are developed. Part 360 (6 NYCRR 360) was therefore promulgated as of September 1, 1973. This is similar to the former Part 19 of the Sanitary Code, now repealed.

Administrative Responsibilities:

The Department of Environmental Conservation is responsible for approving plans for new solid waste management facilities sites. The Department provides assistance to counties in site selection.

POLITICAL JURISDICTION: New York

Title or Reference: ECL Article 47

Implementing Agency: County and Regional Environmental Management Councils

Affected Land Use Activities: Enabling Legislation

Purpose:

To establish environmental management councils.

Provisions:

1. Requires the council to review the state of the county environment as a whole, and prepare and submit an annual report of its findings to the county's governing body.
2. Provides the council, in cooperation with the county planning agency, with the authority to prepare a plan to manage the county's natural resources. The plan should be coordinated with the State plan.
3. Requires the council to keep an index of all open areas in the county and recommend a program for their utilization.
4. Provides two or more counties with the authority to enter into an agreement to establish a regional management council for the several counties agreeing to the consolidation. Regional council powers supersede and replace the individual county councils. Requires that the Department encourage their creation and provide specific supportive services and technical assistance to facilitate conduct of their programs. In addition, the law requires the Department to administer a State aid reimbursement program for up to 50 percent of their operating expenses within the limit of appropriations.

Administrative Responsibilities:

The Environmental Management Council's responsibilities vary by county, but all provide environmental advice to their local government. Most of the county environmental councils are into a full range of air, land, and water programs. Often they engage in planning or program development work or recommend legislative actions to get new programs started. Sometimes they operate programs directly such as environmental education centers or management of natural areas. They are advocates. They provide an environmental overview of the activities of other county agencies and help broaden the programs of these agencies, making them more environmentally responsive. They serve a watchdog function. They serve as a force for organizing citizen interest and gathering public opinion on the environment. They provide information clearinghouse services, circulate newsletters, and run conferences and workshops. They conduct project reviews and prepare environmental impact statements. They serve as a conduit for bringing new State and Federal programs and ideas to the county.

POLITICAL JURISDICTION: New York

Title or Reference: Agriculture and Market Law, Article 25AA, Chapter 479,
Laws of 1971

Implementing Agency: Counties, Commission of Environmental Conservation,
Department of State, Agricultural Resources Commission

Affected Land Use Activities: Agricultural Lands

Purpose:

To establish agricultural districts to foster continued viable agricultural operations and protect such areas from extensive non-farm development, regulations hampering agriculture, and prohibitive taxation.

Provisions:

1. Requires agricultural districts being formed by county governments under Article 25AA of the Agriculture and Markets Law to be approved by the Commission as to their Consistency with State environmental policies and objectives. The Department has 60 days to determine the eligibility of a proposed district. Upon recommendation from the Office of Planning Services and the Agricultural Resources Commission, the Department will either approve or modify the county plan. After receiving the Commission's letter of certification, the county will hold a second hearing within 60 days if the district was modified after the first hearing and thereby may either approve or disapprove the district as certified. Otherwise, a district becomes a legal entity 90 days after certification unless the county decides to disapprove the district.
2. Describes landowner benefits (Section 305) whereby:
 - a. Qualified farmers may apply for exemption from taxation on the value of their land in excess of its value for farming;
 - b. Local government may not restrict or regulate farming operations;
 - c. State agencies must modify administrative regulations and procedures to encourage the maintenance of commercial agriculture to the extent compatible with health, safety and any applicable Federal regulations;
 - d. The right of public agencies to acquire farmland by eminent domain is modified, though not removed, and these agencies are required to consider alternative areas.

- e. Right of public agencies to provide municipal funds that would encourage non-farm development is modified;
- f. Power of public service districts to tax farmland for sewer, water and non-farm drainage is restricted.

Administrative Responsibilities:

The Commission of Environmental Conservation is responsible for approving county governments' plans to establish agricultural districts. The Department of Environmental Conservation reviews applications.

POLITICAL JURISDICTION: New York

Title or Reference: Agricultural Resources Commission Act

Implementing Agency: Agricultural Resources Commission

Affected Land Use Activities: Agricultural Lands

Purpose:

Establishes the Agricultural Resources Commission.

Provision:

Establishes the agricultural functions, powers and duties.

Administrative Responsibilities:

The Commission is responsible for advising the Governor and the Commissioner of Agriculture and Markets on policies and planning for strengthening agricultural progress in the State; creating a sound balance between the economies of urban and agricultural areas; encouraging public and private institutions to provide technological regulations and educational support necessary to maintain a vital agricultural economy; assisting Office of Planning Services and Department of Environmental Conservation in relationship to harmonizing demands placed on land by urban growth with the goal of maintaining and preserving land for agricultural use; maintaining a quality environment for agriculture; and improving relations between farm and non-farm users of land.

POLITICAL JURISDICTION: New York

Title or Reference: New York State Laws of 1970, Chapter 140; L. 1971, Chapters 426, 7451, 868, L. 1972, Chapters 660, 662, 663

Implementing Agency: New York State Office of Parks and Recreation

Affected Land Use Activities: Recreation, forest

Purpose:

To protect and preserve forest lands.

Provision:

Authorizes the New York State Office of Parks and Recreation to acquire land, and develop, preserve, manage, maintain and operate properties. OPR can also enter into contract with other individuals and groups for these purposes.

Administrative Responsibilities:

The New York State Office of Parks and Recreation is responsible for enforcing the provisions of the Act. The OPR has an enforcement function through the State Park and Parkway Police and through the administration of the Recreational Vehicle and Navigation Laws. The placing of navigation markers and the charting of certain inland waters are also an OPR responsibility where the Coast Guard and/or New York State Department of Transportation does not perform these functions.

The OPR has either direct responsibilities for State programs and/or directly manages Federal programs providing grants-in-aid for the acquisition and development of recreational areas and for the preservation of historic sites. In this capacity OPR accepts and reviews applications, provides for appropriate budgetary, audit and other State support, provides for the appropriate environmental analysis and maintains the appropriate acts and documents for these projects.

The Commissioner of OPR is State Liaison Officer for recreation and historic preservation. In this role, in addition to the grants-in-aid and operations functions mentioned above, the Commissioner is in some cases required to and in other cases has the powers to review and comment on projects sponsored by other agencies. Most of these functions relate to the preservation and use of recreational land and waters and historically and archeologically important sites.

POLITICAL JURISDICTION: New York

Title or Reference: Chapter 727, L. 1940 as amended by Chapter 887, L. 1964

Implementing Agency: New York State Soil and Water Conservation Committee

Affected Land Use Activities: Erosion, Agricultural, Forest, Wildlife
Rural Non-farm, Urban, Water

Purpose:

To coordinate the Soil and Water Conservation Districts activities.

Provision:

Authorizes the New York State Soil and Water Conservation Committee to serve as a coordinating and policy body for individual soil and water conservation districts (in 57 counties). These districts, whose boards are comprised of local farm owners principally, are the primary agent for initiating and implementing USDA-sponsored conservation programs in rural and suburban areas.

Administrative Responsibilities:

The New York State Soil and Water Conservation Committee is responsible for overseeing the individual conservation district activities. Furthermore, the Committee aids in developing and implementing farm conservation plans. (Further directions are away from individual farm plans toward watershed and community-wide planning and project implementation.)

POLITICAL JURISDICTION: New York

Title or Reference: County Enabling Legislation

Implementing Agency: County Governments

Affected Land Use Activities: All Categories

Purpose:

To provide counties with certain powers to regulate the use of land.

Provisions:

1. Authorizes counties to establish a county planning board, which may prepare a comprehensive master plan and also review certain local zoning actions and subdivision plans.
2. Authorizes the county to establish an official county map.
3. Authorizes county governments to establish environmental management councils, which are responsible for reviewing and advising local and State government on present and proposed methods of using, protecting, and conserving the environment for the public benefit. (Under a separate provision of law, the State Real Property Law requires anyone who subdivides lots for purposes of sale to file a map of the subdivision with the county clerk; filings of subdivision plats which are made without required local and State approvals are in violation of the law.)

Administrative Responsibilities:

County governments are responsible for establishing a county planning board, preparing a comprehensive plan and official map of the county, establishing environmental management councils, and reviewing certain local zoning actions and subdivision plats.

POLITICAL JURISDICTION: New York

Title or Reference: Environmental Quality Bond Act

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Recreation Areas

Purpose:

To allocate funds for the acquisition of land to provide better access to State lands.

Provisions:

1. Provides for the identification and acquisition of key parcels of privately owned land adjacent to State Reforestation Areas and Multiple Use Areas. These lands are located throughout the State outside the boundaries of the Adirondack and Catskill Parks. The counties are specified in the Act.
2. Appropriates \$44,000,000 for the Adirondacks and \$15,000,000 for the Catskills.

Administrative Responsibilities:

The Department of Environmental Conservation is responsible for land acquisition by purchasing or encouraging the donation of development rights for "in gross" easements where adjoining property owners would not benefit from the easements.

POLITICAL JURISDICTION: New York

Title or Reference: Forest Practice Act, Forest Practice Standards, Timber Harvesting Guidelines

Implementing Agency: Department of Environmental Conservation, State Forest Practice Board, District Boards

Affected Land Use Activities: Timber Cutting Multiple-use Forest Management Activities

Purpose:

To encourage the practice of forestry and to avoid damage caused by unplanned overcutting and to stabilize industries of the State dependent upon forest products.

Provisions:

1. Authorizes the Conservation Commissioner to establish forest districts.
2. Establishes district forest practice boards and a State forest practice board.
3. Establishes standards for the practice of forestry on privately owned land.
4. Provides assistance to woodland owners if they agree to practice approved forest standards. Assistance may include the marking of timber, marketing assistance, reforestation, and silvicultural operations.
5. Requires a woodland owner who becomes a cooperator (reviews services) to follow a Woodland Management Plan and comply with approved forest practice standards for a specified period of time, which may be extended by mutual consent. Certain services carry charges.

Forest Practice Standards, July 30, 1968

6. Establishes cutting practice standards based on site quality.
7. Establishes practice standards based on age composition for high and medium quality sites.
8. Establishes general forest management guides.
9. Establishes logging standards.

Timber Harvesting Guidelines

10. Establishes timber harvesting guidelines. They recommend:
 - a. Keeping stream crossings to a minimum;
 - b. protecting streams by controlling skidding and felling close to the stream;

- c. protecting slopes exceeding 30 percent;
- d. properly locating, designing, and building all roads and skid trails;
- e. selecting landings;
- f. complying with fire laws;
- g. maintaining a 100 ft. wide scenic buffer strip along the roadside;
- h. keeping landings out of sight and dressing up landings and access roads after use.

Administrative Responsibilities:

State Forest Practice Board is responsible for passing standards adopted by District Board, recommending uniform forest practice standards, and acting in an advisory and informative capacity, to the Commission and the District Boards. In each Forest District, the District Forester is responsible for carrying out the various forestry activities. The District Forest Practice Board's duty is to set up forest practice standards applicable to the various forest types in the district and to promote their application.

POLITICAL JURISDICTION: New York

Title or Reference: General Municipal Law Article 12.F, Section 239-X

Implementing Agency: Cities, Towns, Villages, Local Conservation
Advisory Councils

Purpose:

To establish local Conservation Advisory Councils.

Provision:

1. Authorizes the establishment, by cities, towns, and villages, of local Conservation Advisory Councils. The Councils have essentially the same functions at the city, town, and village level as the county councils have at their levels; and the Department has the same service role to play.
2. Provides that a Council may be established by local law, by ordinance, or by draft resolution.

Administrative Responsibilities:

The local Conservation Advisory Council responsibilities vary by locality. Like County Councils, their prime task is providing sound environmental advice to their governments. Most of the local Councils engage in a range of programs and activities. Often they engage in planning or program development or recommend legislative actions to get new programs started. They provide an environmental overview of the activities of other local agencies and help broaden the programs of those agencies, making them more environmentally responsive.

POLITICAL JURISDICTION: New York

Title or Reference: Memorandum of Understanding between New York DOT and New York DEC

Implementing Agency: New York DOT, New York DEC

Affected Land Use Activities: Transportation: Runoff

Purpose:

To ensure continuous cooperation between New York State Department of Transportation and DEC throughout the development, evaluation and implementation of programs and projects which are promulgated under legislative authority of their agency.

Provisions:

1. Recommends that each agency furnish to the other: (a) copies of its long-range plans for the improvement of facilities and services under its jurisdiction; (b) copies of its current capital program and scheduled maintenance programs; and (c) advise each other of environmental research.
2. Suggests that each agency comment on proposed projects and suggest alternatives which will mitigate or minimize potential adverse impacts.
3. Suggests that DOT notify DEC in advance of changes in construction specifications. DEC should submit comments on the proposed changes. Likewise, DEC should submit proposed changes in pollution control regulations to DOT for review and comment.

Administrative Responsibilities:

The New York DOT and New York DEC are both responsible for exchanging information with regard to their respective projects, as well as reviewing and commenting on the respective agencies' proposed plans and regulations.

POLITICAL JURISDICTION: New York

Title or Reference: Pesticide Law, Pesticide Applicator Law, Circular 864
Part 326, Circular 865 Part 325

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Pesticides

Purpose:

To regulate the registration, commercial use, purchase and custom application of pesticides.

Provisions:

Title 3, Sections 33-0301, 33-0303, 33-0305

1. Provides the Commission with the authority to require the submission of the complete formula of any pesticide whenever he deems it necessary in the administration of this article. The Commissioner, of his own motion or upon complaint, may cause an examination to be made to determine whether any pesticide complies with the requirements of this article. If it shall appear from such examination that a pesticide fails to comply with the provisions of this article, the Commission shall cause notice to be given to the offending person in the manner provides in Section 71-2903, and the proceedings shall be provided in such article provided that pesticides may be seized and confiscated as provided in Title 15 of this Article 33.
2. Requires that every pesticide which is distributed, sold, or offered for sale within this State or delivered for transportation or transported in intrastate commerce or between points within this State through any point outside this State shall be registered annually in the Office of the Commissioner; however, products which have the same formula, are manufactured by the same person, the labeling of which contains the same claims, and the labels of which bear a designation identifying the product as the same pesticide may be registered as a single pesticide; and additional names and labels shall be added by supplement statements during the current period of registration; and provided, further, that any pesticide imported into this State, which is registered under the provisions of any Federal act providing for the registration of pesticides may, in the discretion of the Commissioner, be exempted from registration under this article, when sold or distributed in the unbroken immediate container in which it was originally shipped.

3. Requires the applicant to provide the following information on the registration application:
 - a. The name and address of the applicant and the name and address of the person whose name will appear on the label, if other than the applicant;
 - b. The name of the pesticide;
 - c. A complete copy of the labeling accompanying the pesticide and a statement of all claims to be made for it including directions for use; and
 - d. If requested by the Commissioner, a full description of the tests made and their results upon which the claims are based. In the case of registration of a pesticide which has been registered for the previous year, a statement shall be required only with respect to information which is different from that furnished when the pesticide was last registered.
4. Stipulates that the registrant pay an annual fee of \$7.50 for each of the first ten pesticides registered plus \$2.00 for each additional pesticide registered.
5. Provides the Commissioner with authority to cancel the registration of a pesticide whenever it does not appear that the article or its labeling or other material required to be submitted complies with the provisions of this article. A cancellation of registration shall be effective 30 days after service of the foregoing notice unless within such time the registrant: (a) makes the necessary corrections; (b) files a petition requesting that the matter be referred to an advisory committee; or (c) files objections and requests a public hearing.
6. Provides the Commissioner with the authority at any time to refer matters concerning registration of pesticides or the suspension or cancellation of such registration, to an advisory committee. (Each advisory committee shall be composed of experts, qualified in the subject matter of adequately diversified professional background selected by the Department and shall include one or more representatives from the State College of Agriculture.)

Title 9, Sections 33-0901, 0903, 0905

7. Requires a commercial permit for the distribution, sale, offer for sale, purchase for the purpose of re-sale or possession for the purpose of re-sale of a restricted use pesticide.
8. Stipulates that any person desiring a commercial or purchase permit shall file an application containing such information required by the Commissioner and in a form prescribed by the Commissioner. The Commissioner shall examine the application and shall issue or refuse to issue the permit requested therein. The Commissioner shall impose whatever restrictions or conditions on the permit he deems appropriate in order to fully protect the public interest. Such a permit shall not be valid for more than two years as determined by the Commissioner.
9. Requires the holder of a commercial permit to maintain and make available to the Commissioner or his agents, for at least two years, accurate and detailed records accounting for all restricted use pesticides acquired by him and disposed of by him, including, but not limited to, dates, names and addresses of all suppliers and the quantities acquired from each, and the names, addresses, and permit numbers of all purchasers and the quantities purchased by each.
10. Allows for the denial of an application or revocation of a commercial permit or purchase permit be based on one or more of the following reasons:
 - a. That any statement in the application or upon which the permit was issued is or was false or misleading;
 - b. That the applicant or permit holder does not have adequate facilities for the storage and distribution of restricted use pesticides;
 - c. That the applicant or permit holder has engaged in fraudulent business practices relating to the sale and distribution of pesticides;
 - d. That the applicant or permit holder has failed to comply with any provision of subdivision 1 through 5 inclusive of Section 33-0303 and titles 5, 7, 11, 13 and 15 of this article or rules and regulations of the Department made pursuant thereto; or
 - e. That the applicant or permit holder has failed to demonstrate that he has sufficient knowledge and experience concerning the proper use and application of pesticides.

11. Does not require a formal hearing and the Commissioner's decision in denying or revoking a permit shall be final unless the applicant or permit holder institutes a review within the time and in the manner prescribed by Article 78 of the Civil Practice Law and Rules.
12. Requires a purchase permit for the purchase, possession or use of a restricted use pesticide.
13. Requires any person who engages in custom application of pesticides must have a custom applicator certificate issued by the Commissioner.
14. Suggests that in issuance of custom applicator certificates, due regard and recognition be given to qualifications required of those who apply pesticides for hire and to qualifications required of those who apply pesticides without receiving specific remuneration therefor.
15. Specifies that the provisions of this article relating to registration and certification shall not apply to an individual applying pesticides by use of ground equipment for himself on his own property or premises and, who does not regularly use and apply such pesticides on his own property or premises to produce a significant part of his gainful employment or livelihood.
16. Requires that the application for a custom applicator certificate be made to the Commissioner and shall be for the period beginning April 1 and ending March 31 of the following year. The application shall be on a form prescribed by the Commissioner and shall be accompanied by the fee or fees provided in subdivision 5 of this section. The applicant shall satisfy the Commissioner of his character and financial responsibility and shall provide such information as the Commissioner shall require regarding his knowledge and experience concerning the proper use and application of pesticides, his equipment and proposed operation.
17. Requires that certified custom applicators shall maintain such records and shall furnish such reports concerning the custom application of pesticides as the Commissioner shall require. All records required to be kept under this section shall be available for inspection by the Commissioner.

Title 13, Section 33-1301

18. Makes it unlawful for any person to distribute, sell, or offer for sale within this State or deliver for transportation or transport in intra-state commerce or between points within this State through any point outside this State any of the following:

- a. Any pesticide which has not been registered pursuant to the provisions of this article or any pesticide if any of the claims made for it or any of the directions for its use differ in substance from the representations made in connection with its registration, or if the composition of a pesticide differs from its composition as represented in connection with its registration; provided that, in the discretion of the Commissioner, a change in the labeling or formula of a pesticide may be made within a registration period without requiring re-registration of the product.
- b. Any pesticide, unless it is in the registrant's or the manufacturer's unbroken immediate container, and there is affixed to such container, and to the outside container or wrapper of the retail package, if there be one, through which the required information on the immediate container cannot be clearly read, a label reading:
- (1) The name and address of the manufacturer, registrant, or person for whom manufactured,
 - (2) The name, brand, or trademark under which said article is sold, and
 - (3) The net weight or measure of the content; subject, however, to such reasonable variations as the Commissioner may permit;
- c. Any pesticide which contains any substance or substances in quantities highly toxic to man, determined as provided in Section 33-0303, unless the label shall bear, in addition to any other matter required by this article:
- (1) The skull and crossbones,
 - (2) The word "poison" prominently, in red, on a background of distinctly contrasting color, and
 - (3) A statement of an antidote for the pesticide.
- d. The pesticide commonly known as standard lead arsenate, basic lead arsenate, calcium arsenate, magnesium arsenate, zinc arsenate, zinc arsenite, sodium fluoride, sodium fluosilicate, and barium fluosilicate unless they have been distinctly colored or discolored as provided by regulation issued in accordance with this article, or any other white powder pesticide which the Commissioner, after investigation of and after public hearing on the necessity for such action for the protection of the public health and the feasibility of such coloration or discoloration, shall, by regulations, require to be distinctly

colored or discolored; unless it has been so colored or discolored; provided, that the Commissioner may exempt any pesticide to the extent that it is intended for a particular use or uses from the coloring or discoloring required or authorized by this section if he determines that such coloring or discoloring for such use or uses is not necessary for the protection of the public health.

e. Any pesticide which is adulterated or misbranded.

19. Makes it unlawful for any person to detach, alter, deface, or destroy, in whole or in part, any label or labeling provided for in this article or regulations promulgated hereunder, or to add any substance to, or take any substance from a pesticide in a manner that may defeat the purpose of this article.

20. Makes it unlawful for any person to use for his own advantage or to reveal, other than to the Commissioner or proper officials or employees of the State or to the courts of this State in response to a subpoena, or to physicians, or in emergencies to pharmacists and other qualified persons, for use in the preparation of antidotes, any information relative to formulas of products acquired by authority of this article.

21. Makes it unlawful for any person to store or dispose of any pesticide, or of any container which holds or has held a pesticide, except in compliance with the rules and regulations of the Commissioner.

22. Makes it unlawful for a commercial permit holder to sell restricted use pesticides except to the holder of a non-cancelled purchase permit or to the holder of a commercial permit.

23. Allows any pesticide that is distributed, sold or offered for sale within this State or delivered for transportation or transported in intrastate commerce or between points within this State through any point outside this State may be seized for confiscation:

a. If it is adulterated or misbranded, or if it has not been registered as required under this article;

b. If it fails to bear on its label the information required by this article;

c. If it is a white powder pesticide and is not colored as required under this article;

d. If a permit required by this article has not been issued in respect to such pesticide.

24. Stipulates that any person who violates any provision of any rule or regulation established by the Department, pursuant to the provisions of this article, shall be guilty of a misdemeanor and shall, upon conviction, be subject to a fine of not to exceed \$100.00 or imprisonment for not more than 30 days or by both such fine and imprisonment, and in addition thereto, shall be liable to a penalty of not less than \$10.00 nor more than \$100.00.

Circular 864, Part 326 -- Rules and Regulations Relating to Restricted Pesticides

25. Lists the pesticides that may be distributed, sold, purchased, possessed and used only upon issuance of a commercial or purchase permit for any uses listed on the approved label as registered with NYSDEC.
26. Lists the pesticides that may be distributed, sold, possessed, or used only upon issuance of a commercial permit or purchase permit for those purposes listed in Section 326.2(b)(1)-(9).
27. Details commercial permit and purchase permits restrictions, application procedures, cancellation of a permit, and the denial of an application.
28. Stipulates that a commercial permit holder must keep an annual sales report.

Circular 865, Part 325 -- Rules and Regulations Relating to the Application of Pesticides, Appendix 8-A to Part 325, Appendix 8-B to Part 325

29. Stipulates that pesticides be used in such a manner under such wind and other conditions as to prevent contamination of crops, property, structures, lands, pasturage or waters adjacent to the area of application. Registered pesticides are to be used only in accordance with label directions or as modified or expanded and approved by the Department. All equipment containing pesticides and drawing water from any water source shall have an effective anti-siphon device to prevent backflow.
30. Describes the procedure for cleaning and disposal of pesticide containers and disposal of unwanted or unusable pesticides.
31. Prohibits the re-use of pesticide containers unless such purpose has been approved by the Commissioner in writing and the containers have been properly decontaminated.
32. Requires each individual engaged in the commercial application of pesticides to possess a valid commercial applicators permit. Also requires individual engaged in the private application of any restricted use pesticide shall possess a valid private applicator certificate or

special permit issued by the Commissioner, except that an individual who is applying a restricted use pesticide under the direct supervision of an appropriate certified applicator shall not be required to possess such a certificate.

33. Details the eligibility requirements for certification, the examination for certification and the procedure for renewal and recertification.
34. Requires each business providing the services of commercial application of pesticides, either entirely or as part of the business, shall register annually with the Department on forms supplied by the Department, and to keep records showing: the kind and quantity of each pesticide used; dosage rates; methods of application, target organisms; and the use, date and place of application for each pesticide used. These records shall be maintained on an annual basis and retained for a minimum of three years and shall be available for inspection upon request by the Department.
35. Establishes general and specific standards for all categories of certification of commercial applicators.
36. Establishes standards for certification of private applicators.
37. Establishes standards for supervision of non-certified applicators by certified private and commercial applicators.

Administrative Responsibilities:

The Commissioner of the Department of Environmental Conservation is responsible for declaring as a pest any form of plant or animal life or virus which is injurious to plants, men, domestic animals, articles or substances; determining whether pesticides are highly toxic to man, and to promulgate a list of such pesticides; determining standards of coloring or discoloring for pesticides, and to subject pesticides to the requirements of paragraph d of subdivision 1 of Section 33-1301; promulgating a list of restricted use pesticides and the usages of such pesticides that may be permitted subject to whatever conditions or limitations which the Commissioner deems appropriate to fully protect the public interest; and adopting, promulgating and issuing such rules and regulations as he may deem necessary to carry out and give full force and effect to the provisions of this article. However, rules and regulations regarding custom application may be adopted only after a public hearing. Such rules and regulations may prescribe methods to be used in custom application of pesticides, including the time, place, manner and method of application and equipment used, and may restrict or prohibit use of materials in designated areas during specified periods of time, and shall encompass all reasonable factors which he deems necessary to prevent damage or injury to health, property and wildlife. Rules and regulations shall be filed and open for public inspection at the principal office of the Department and shall be filed with the Secretary of State. The Department is also responsible for certifying all pesticides and applicators.

POLITICAL JURISDICTION: New York

Title or Reference: New York Stream Protection Law Article 15,
Title 5, ECL

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Lakeshore and Riverbank Erosion Fish,
Wildlife, (Agricultural Erosion) Re-
creation, Agriculture, Forest, Urban,
Mining, Transportation.

Purpose:

To prevent unreasonable and unnecessary alteration of stream channels, filling and dredging in navigable waters, and to control construction of certain domes and docks.

Provisions:

1. Prohibits any person or public corporation or other State department from changing, modifying, disturbing, removing sand or gravel or other materials from the beds or banks of any stream for which the Department has classified AA(T), A, A(T), B, B(T), or C(T) without having applied for and obtained a permit.
2. Details the stream protection permit application requirements. They are as follows:
 - a. A plan showing existing and proposed profiles, cross sections, and stream alignment. Specifications on construction procedures, sediment control and the method of stream bank stabilization.
 - b. Hydraulic and hydrologic data to support channel design. Also data on increased flows, if any, as a result of the project and its effect downstream.
 - c. Any information on State or Federal flood plain management or basin studies either underway or completed, and any local or State restrictions regarding the use of the watershed in which the project is located.
 - d. Topographic map showing existing and proposed contours (2' interval).
 - e. Plan of stormwater drainage system and discharge structures into the stream. Details on other systems that may involve either discharges into streams or their crossing, such as sanitary sewers and water mains.
 - f. The environmental resources values of the stream are provided by the Department's Regional Office. This may include data on fishery surveys, the Department stocking policy, or any other biological information which the Region can offer.

3. Where there is no major change proposed in the stream, such as minor channel alignment or discharge structures built into the bank of the stream, the details outlined above can be reduced accordingly.
4. Prohibits any person or local public corporation from excavating or filling in the navigable waters of the State, or in marshes, estuaries, tidal marshes and wetlands that are adjacent to and contiguous at any point to navigable waters and that are inundated at a mean high water level or tide, unless a permit is obtained.
5. Requires the following information to obtain a permit to excavate or fill in navigable waters:
 - a. General location map;
 - b. Plans showing existing and proposed contours for fill and dredging in navigable waters (2' interval), type of shoreline protection, etc.;
 - c. Extent of the area to be filled or dredged to include the quantity and type of material to be filled or dredged;
 - d. Lake data and regulations, if any,
6. Prohibits any person or local corporation from erecting, reconstructing, or repairing any dam or impoundment structure or any dock, pier, wharf, or other boating land structure, temporary or permanent, unless a permit is first obtained.
7. Where the project includes a dam the following information must be provided:
 - a. Detailed plans and specifications for the design and construction of the dam and appurtenances prepared by a registered professional engineer in accordance with the Department's Guidelines for Small Earth Dams.
 - b. The environmental resource values of the stream are provided by the Department's Regional Office. This may include data on fishery surveys, Department stocking policy or any other biological information which the Region can offer.
 - c. Topographic map of the area around the impoundment showing the existing and proposed contours. If the stream is classified C(T) or higher, details on any drainage system discharging either into the impoundment or into the downstream portion should be provided.
8. Stipulates the environmental resource values of the lake or river be provided by the Department's Regional Office. This may include data on fishery surveys, Department stocking policy or any other biological information which the Region can offer.

9. Requires permittee to notify appropriate permit agent that the work has been completed.

Administrative Responsibilities

The Department of Environmental Conservation is responsible for reviewing and approving stream protection permit applications. The Commissioner may designate employees either as chief permit administrators or regional administrators to administer the law.

POLITICAL JURISDICTION: New York

Title or Reference: Public Lands Laws, Articles 2, 3, 6 and 7

Implementing Agency: Department of Environmental Conservation,
New York State Geological Survey, New York
Department of State, New York State Power
Authority, U.S. Army Corps of Engineers,
and municipalities

Affected Land Use Activities: Dredging, Filling Fish, Wildlife, Agriculture, Forest, Urban, Mining, Transportation, Recreation.

Purpose:

To protect all State land, upland and underwater.

Provisions:

1. Empowers the Commissioner of General Services to issue leases and grants, easements and licenses for dredging, bulkheads, fills and structures, pipelines, cables, both underwater and aerial. However, under an amendment to the Public Lands Law, OGS no longer has responsibility for the licensing and regulation of the taking of sand, gravel or other materials found in underwater State lands bordering Erie County, most of Chautauqua County, and all of Long Island.
2. Establishes specific grant programs that include:
 - a. Grants of Unappropriated State Lands (PLL, Article 3): These are lands to which the State holds title and are not directed by law to any specific use. Included are lands declared surplus to the needs of any State agency. Lands are sold at public auctions to private individuals or municipalities.
 - b. Underwater Land Grants (PLL, Article 6): Grants in perpetuity of underwater land may be made to owners of adjacent land to promote commerce or for other agricultural, recreational, transportation or conservation purposes. Permits from various government agencies may be required.
 - c. Extracting Minerals from State and Private Lands (PLL, Article 7): Permits may be issued to enter upon State lands for working a mine or extracting any minerals. Royalties are payable to the State.
 - d. Underwater Land Easements (PLL, Subdivision 2): In order to control the placement of structures on State underwater land, construction beyond an upland owner's riparian rights must be authorized by an easement on underwater lands not appropriated to any immediate use.

- e. Removing Material from Underwater Lands (PLL, Subdivision 5, Section 3): This program licenses and regulates the removal of sand, gravel, or other material from the underwater lands of the State. Most of this removal is done in connection with a requirement for fill material or keeping navigable channels open.

Administrative Responsibilities:

The Office of General Services (OGS) has the responsibility for the general care and superintendence of all State land, upland and underwater, which is not vested in some other State department, division, bureau or agency.

1. Empowers the Commissioner of General Services to issue licenses and grants, easements and licenses for dredging, building, filling and structures, pipelines, cables, both underwater and within harbors, under an agreement to the State. OGS no longer has responsibility for the licensing and regulation of the taking of sand, gravel or other materials found in underwater State lands including Erie County, east of Westchester County, and all of Long Island.
2. Establishes specific grant programs that include:
 - a. Grants of Designated State Lands (PL, Article 27): These are lands to which the State holds title and are not devoted by law to any specific use. Lands are issued and terms declared subject to the needs of any State agency. Lands are sold or public auction to private individuals or corporations.
 - b. Underwater Land Grants (PL, Article 27): Grants in perpetuity of underwater land may be made to owners of adjacent land to private commerce or for other agricultural, recreational, transportation or conservation purposes. Terms from various government agencies may be required.
 - c. Extractive Minerals from State and Private Lands (PL, Article 27): Parties may be issued in their own State lands for working a mine or extracting any minerals. Permitted and payable to the State.
 - d. Underwater Land Easements (PL, Subdivision 5): In order to control the placement of structures on State underwater lands, compensation beyond an unpaid owner's riparian rights must be established by an easement on underwater lands not appropriated to any particular use.

POLITICAL JURISDICTION: New York

Title or Reference: Real Estate Property Tax Law

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Forested Areas

Purpose:

To preserve forest land.

Provisions:

1. Stipulates that after September 1, 1974, owners of "forest land" who are seeking to have their land certified as such must apply under Section 480-a. As to lands classified pursuant to Section 480 prior to September 1, 1974, the owner of such lands may elect to continue to have such lands so classified, subject to all the duties, responsibilities, and privileges under that section, or he may elect to make application for certification pursuant to Section 480-a.
2. Provides that applications for certification under the law for eligible forest lands (at least fifty acres in size) is made to the Department. A subsequent field inspection of the property is made by appropriate Regional Office staff to determine eligibility under the Law. If the Department certifies "Forest Land" as eligible land (devoted to and suitable for forest crop production through natural seeding, reforestation or normal growth), copies of the certificate are then duly filed with the appropriate county clerk, the assessor, and the State Board of Equalization and Assessment. Certified eligible tracts are assessed upon the basis of forest land value per acre as determined annually by the State Board of Equalization and Assessment.

Administrative Responsibilities:

The Department of Environmental Conservation is responsible for certifying the forest land.

POLITICAL JURISDICTION: New York

Title or Reference: Soil and Water Conservation Districts Law as amended 1975

Implementing Agency: Soil and Water Conservation District

Affected Land Use Activities: Erosion Agricultural, Forest, Wildlife
Rural Non-farm, Urban, Water

Purpose:

To control and prevent floodwater and sediment damages both through the application of individual farm plans and support of small watershed management programs.

Provisions:

1. Establishes a Soil and Water Conservation Board in each county.
2. Makes mandatory, by 1980, individual soil and water conservation plans for productive rural land holdings of over 25 acres.

Administrative Responsibilities:

The Soil and Water Conservation District Boards are responsible for administering programs that control erosion and prevent floodwater and sediment damages. The Boards are also responsible for reviewing individual soil and water conservation plans.

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THE LEGISLATIVE AND INSTITUTIONAL FRAMEWORK
TO CONTROL POLLUTION FROM LAND USE ACTIVITIES IN
THE UNITED STATES GREAT LAKES BASIN

ACKNOWLEDGMENTS

THE STATE OF OHIO

PART I -- PROBLEMS, CURRENT

STATUS AND RECOMMENDATIONS

CHAPTER I -- INTRODUCTION

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IN SUBCONTRACT TO
GREAT LAKES BASIN COMMISSION
ANN ARBOR, MICHIGAN

To be used as a portion of the technical reports
of the International Reference Group on
GREAT LAKES POLLUTION FROM LAND USE ACTIVITIES
of the International Joint Commission --
Prepared in partial fulfillment of the
U. S. Environmental Protection Agency
Contract No. 68-01-1598
with the Great Lakes Basin Commission

October 1977

3.2.5 Local General Purpose Units of Government

3.2.6 Special Purpose Districts

3.3 LEGISLATIVE FRAMEWORK

3.3.1 Urban Areas

3.3.2 Agriculture

3.3.3 Liquid, Solid and Deepwell Disposal

ACKNOWLEDGEMENTS

This report was prepared by Linton & Company, Inc. under contract to the Great Lakes Basin Commission, Linton & Company would like to acknowledge the assistance of the following individuals in the preparation of the report:

Floyd E. Heft, Ohio Department of Natural Resources
Harold Porter, Department of Agriculture
Dave Kos, Department of Health
Joe Evans, Department of Health
Chris Stoler, Ohio Environmental Protection Agency
Charlie Call, Department of Natural Resources
Ted DeBrosse, Department of Natural Resources
Ernest Gibhart, Department of Natural Resources

This study was carried out as part of the Task A activities of the Pollution From Land Use Activities Reference Group, an organization of the International Joint Commission, established under the Canada/United States Great Lakes Water Quality Agreement of 1972. The Technical Representative for the study was Eugene A. Jarecki, Great Lakes Basin Commission. Findings and conclusions are those of the authors Eric Schweitzer and Barbara Roth, Linton & Company and do not necessarily reflect the views of the Reference Group or its recommendations to the Commission.

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PART I

PROBLEMS, CURRENT ACTIVITY, EVALUATION

3.1 GENERAL

This chapter presents the institutional structure and the legislative framework for non-point pollution control in the State of Ohio. Section 3.2 identifies the institutions involved in non-point pollution control and presents brief descriptions of the key institutions.

Section 3.3 presents the legislative framework in detail, followed by a discussion of the agencies of the problem, current controls, and evaluation of the controls and their implementation.

3.2 INSTITUTIONAL STRUCTURE

Different State and substate agencies share pollution control responsibilities in Ohio. Table I presents these agencies for each level of government.

TABLE I

AGENCIES WITH NON-POINT POLLUTION CONTROL RESPONSIBILITIES

STATE	SUBSTATE
Ohio Environmental Protection Agency	Cities
Department of Natural Resources	Villages
Soil and Water Conservation Commission	Townships
Department of Health	Counties
Department of Agriculture	Soil and Water Conservation Districts
Department of Transportation	Conservancy Districts
Ohio Water Development Authority	Sanitary Districts

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CHAPTER 3

INSTITUTIONAL AND LEGISLATIVE FRAMEWORK

3.1 GENERAL

This chapter presents the institutional structure and the legislative framework for non-point pollution control in the State of Ohio. Section 3.2 identifies the institutions involved in non-point pollution control and presents brief descriptions of the key institutions.

Section 3.3 presents the legislative framework in matrix form, followed by a discussion of the magnitude of the problem, current controls, and evaluation of the controls and their implementation.

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Department of Transportation	Conservancy Districts
Ohio Water Development Authority	Sanitary Districts

3.2.1 Ohio Environmental Protection Agency

The Ohio Environmental Protection Agency was created in 1972 under the Ohio Pollution Control Act to give the State a stronger means of cleaning up, controlling, and managing the environment. Responsibilities of the former Air and Water Pollution Control Boards and Water Commission, as well as the solid waste management responsibilities of the Public Health Council, were transferred to the Director of the Environmental Protection Agency.¹

The Ohio Environmental Protection Agency was given broad responsibilities in the area of water quality. Section 6111.03 of the Ohio Revised Code (ORC) mandates that OEPA develop plans and programs for the prevention, control and abatement of pollution in State waters and conduct studies and research relating to water pollution. Toward this end, OEPA reviews and issues discharge permits, monitors wastewater and water supply facilities, enforces water quality standards, distributes federal wastewater facilities grants and engages in water quality studies including 303(e) basin planning studies.²

Although OEPA has primary responsibility for enforcing water quality standards, the Ohio Department of Health plays a minor role by enforcing standards for water supply facilities used for public consumption as well as for septic tanks and sewage facilities serving public areas, such as schools and parks.³

The OEPA also plays a major role in wastewater management both in the area of promulgating and enforcing facilities and discharge standards and in certifying applications for Region V, USEPA. OEPA is authorized to issue or deny permits for the discharge of municipal and industrial wastes and any other wastes flowing into State waters. In addition, OEPA determines priorities among municipalities for the granting of federal monies for the construction of wastewater treatment plants.⁴

The OEPA is also responsible for the control of solid waste as it relates to water quality on the State level. The agency is responsible for adopting regulations and issuing permits and licenses governing solid waste disposal sites and facilities in order to assure that such sites and facilities will not contribute to water pollution.⁵

The OEPA's Office of Public Water Supply plays the principal State role in overseeing the State's water supply. Under the authority of Chapter 6111 of the ORC it administers guidelines for the siting of wells, proper treatment of raw water and development of distribution systems. OEPA may assume additional responsibility if it chooses to administer the Federal Safe Drinking Water Act (P.L. 93-523) for the State of Ohio. If OEPA assumes primary responsibility for implementation and enforcement of standards promulgated under this legislation, it will require additional funding and staffing. However, at this time, it may not be ready to make the commitment.⁶

The Director of the OEPA is responsible for the State's air, water and solid waste abatement programs and oversees the entire Agency's operation to ensure that all State and federal requirements are met.

In addition, the Director is a member of several groups formed to further environmental goals (Ohio Power Siting Commission, Great Lakes Water Quality Board, etc.).

The agency is divided into six functional offices. These include the Office of Wastewater Pollution Control, the Office of Public Water Supply, the Office of Land Pollution Control, the Office of Air Pollution Control, the Office of Operational Support and the Office of District Operations. Figure I presents the structure of OEPA.

The key offices which are concerned with non-point pollution are the Office of Wastewater Pollution Control and the Office of Land Pollution Control. The remainder of this section will present a brief description of each of the six functional offices.

3.2.1.1 Office of Wastewater Pollution Control

The Office of Wastewater Pollution Control is responsible for the control and prevention of water pollution in Ohio. The issuance of National Pollution Discharge Elimination System (NPDES) permits for both industrial and public wastewater dischargers is handled by the Office as well as the enforcement of NPDES permit requirements.

This Office also is responsible for the development and updating of Ohio's general water quality standards in compliance with the 1983 goals of the 1972 Federal Water Act.

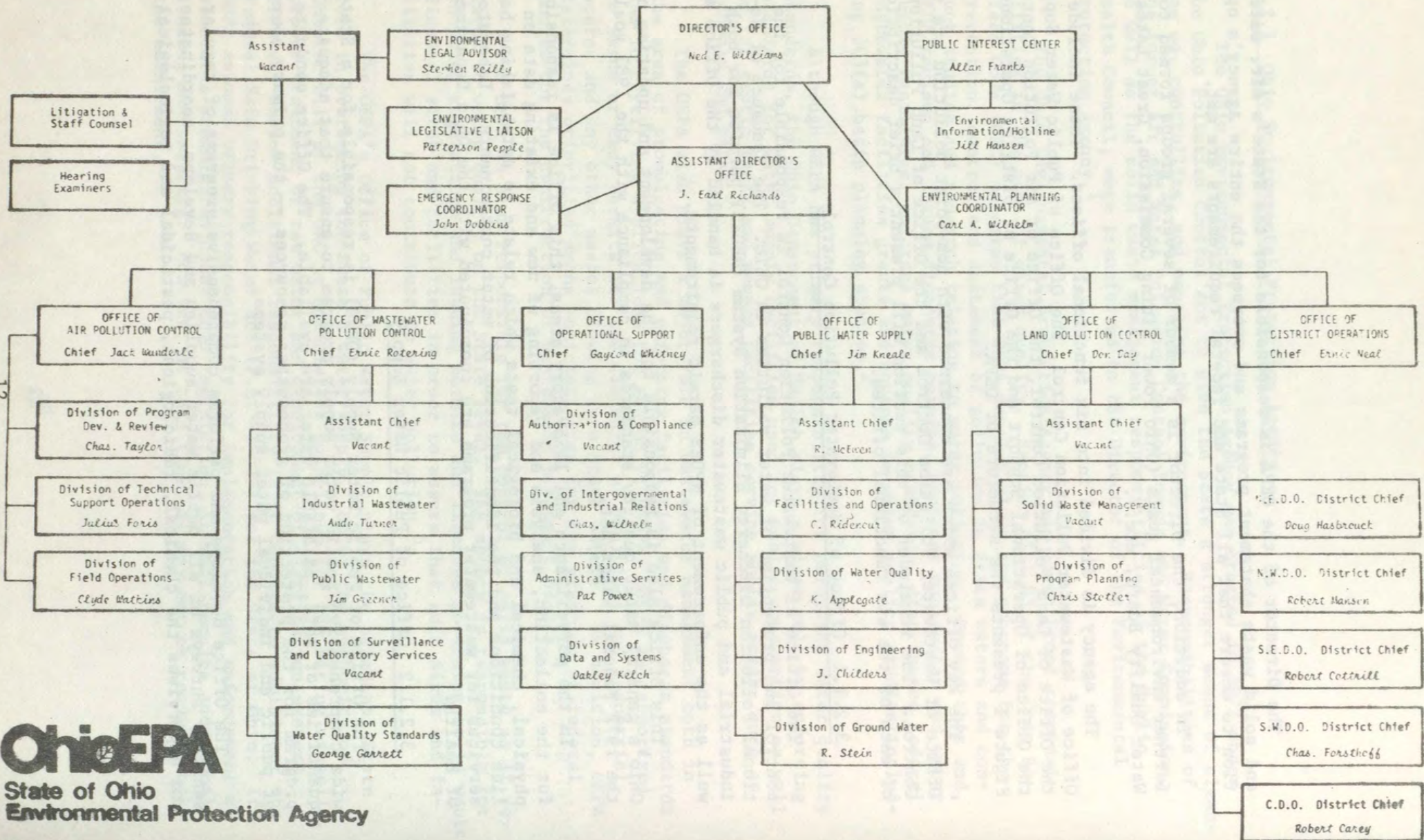
In the surveillance and laboratory areas, this Office is responsible for the collection, analysis and reporting of new and existing data on physical, chemical and biological tests which relate to establishing baseline conditions and the identification of water contaminants. Laboratory services for wastewater programs are coordinated with the Ohio Department of Health.

3.2.1.2 Office of Public Water Supply

The Office of Public Water Supply (OPWS) is responsible for a State-wide comprehensive public water supply program to ensure that adequate quantities of safe, palatable water are available. The Office conducts a program for the protection of groundwater resources -- the primary source of public and individual water supply systems.

The Office develops and performs comprehensive programs of regular sanitary surveys of all public water supplies and develops, coordinates, and supervises the chemical, radiological, pesticidal and toxicological

FIGURE 1



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aspects of public drinking water quality. OPWS also maintains a laboratory certification program for commercial, private, State and industrial facilities conducting either biological or chemical analysis of potable water.

3.2.1.3 Office of Land Pollution Control

The Office of Land Pollution Control (OLPC) directs the control and disposal of solid waste in the State. Investigating landfill disposal sites, reviewing and evaluating disposal plans and assisting geologists in establishing landfill monitoring programs are the responsibility of this Office.

OLPC also prepares plans, collects data and prepares guidelines for controlling the disposal of hazardous wastes in Ohio and reviews and approves plans for collection, transportation, temporary storage, site selection and recovery/disposal of hazardous wastes.

This Office assists communities and planning agencies in solid waste planning and monitors State and federally funded solid waste planning programs.

3.2.1.4 Office of Air Pollution Control

The Office of Air Pollution Control oversees the regulation and control of air pollution in Ohio. Steps toward pollution abatement include surveillance of pollution sources, permit review and long-range comprehensive planning.

The Office provides engineering support to the air program, evaluates pollution control strategies, and analyzes and determines the impact of an air pollution source to learn how it affects air quality. Applications for all types of air permits are processed and periodically reviewed by this Office.

3.2.1.5 Office of Operational Support

The Office of Operational Support supplies the Agency with those administrative and support functions necessary to complete the Agency's goals and functions.

3.2.1.6 Office of District Operations

The Office of District Operations oversees the functioning of the Agency's five district offices. The district offices are organized in much the same manner as the OEPA's Central Office, with functions being handled in closer proximity to the problem or pollution source.

The EPA also maintains a Public Interest Center for communicating with the public by such means as news releases, newsletters, a speakers bureau and special meetings and seminars.

The Environmental Board of Review, separate from the Environmental Protection Agency but created by the same law, hears appeals on decisions of the EPA Director regarding regulations or the issuing and renewing of licenses, permits and industrial pollution control certificates. This is a full-time job for the board's three members, who are appointed by the Governor to 6-year, overlapping terms.⁷

3.2.2 Department of Natural Resources

This department is responsible for the development, conservation and wise use of the State's natural resources.

The Division of Soil and Water Districts within the DNR is helping to take the lead role in non-point source pollution by assisting the Soil and Water Conservation Commission in developing rural and urban pollution control regulations. The Division acts as staff to the Commission. This role could become extremely important if the proposed rural and urban pollution control regulations are acted upon favorably by the Ohio General Assembly.⁸ The proposed legislation is discussed later in the report; e.g., pages 30-31, 37-41, 62-64. The regulations in agricultural areas would seek to control sediment pollution caused by accelerated erosion and animal waste pollution. A proposed urban sediment control program would include regulation of accelerated water erosion of land used or being developed for commercial, industrial, or residential purposes; for highways, streets, airports, railroads, utilities or other related purposes; and for private or public recreation, wildlife or natural purposes.

The Department also plays a major role in developing criteria for regulation of flood plains and has worked to encourage local governments to become eligible for flood insurance.

The Department additionally is responsible under Chapter 1501 to inventory water supplies throughout the State. The Department also administers the states coastal zone management program.

Legislation is pending before the Ohio General Assembly that would assign responsibility for the development and maintenance of regional water plans to ODNR. Under this legislation, ODNR would only be responsible for that portion of the plan relating to water supply. The legislation (designed to diffuse water resource management authority between ODNR and OEPA) does create problems in the assignment of water related responsibilities between the two agencies. Essentially though, OEPA is responsible for

water quality planning and enforcement, and ODNR for water inventory planning and management. "Gray" areas are assigned by agreement between the two agencies; in some cases, the assignment of a function is determined by the agency in which an expert on the subject is currently located.¹⁰

The Department is headed by a Director, an Executive Assistant and four Deputy Directors. The Deputy Directors supervise the four major offices of the Department.

3.2.2.1 Office of Management and Budget

The Office of Management and Budget handles the budgetary and administrative business of the Department, as well as matters pertaining to land acquisitions, engineering, and personnel.

3.2.2.2 Office of Planning and Research

The Office of Planning and Research includes the divisions of: planning, which makes recommendations on land use planning from the standpoint of land capability and the wise use of natural resources, including planning for open spaces, scenic river areas, and flood plain management; research; lands and soil, which maintains a soil resources inventory by classifying and mapping soils of the State; geological survey, which locates, maps, and analyzes mineral resources of the State, and researches currents, sediments, and shore erosion of Lake Erie; as well as units of Intergovernmental Coordination and Environmental Assessment.

3.2.2.3 Office of Environmental Enforcement and Legal Affairs

The Office of Environmental Enforcement and Legal Affairs contains the divisions of: Oil and Gas, which establishes and enforces regulations for pollution control and safety in the drilling, maintenance, and abandonment of oil and gas wells; Reclamation, which establishes and enforces regulations for the surface mining of coal, licenses strip miners, and inspects mining operations for pollution and adequate reclamation of the land; Water, which issues permits for and inspects dams constructed in the State; and Soil and Water Districts, which trains soil and water conservation district supervisors and administers programs of soil and water conservation in both urban and rural communities. This office also contains the Legal and Legislative Programs units.

3.2.2.4 Office of Recreation and Resource Management

The Office of Recreation and Resource Management includes the divisions of: Wildlife, which manages and protects the wildlife of the State, provides public hunting and fishing areas and stocks them, enforces hunting, fishing, and trapping regulations and enforces stream litter laws; Forests and Preserves, which protects and manages State forests and nature preserves,

re-forests open land, gives advice on sound forestry practices; Parks and Recreation, which administers the facilities and programs of the State parks and recreation areas; and Watercraft, which registers, licenses and numbers all boats using Ohio's waterways, operates a watercraft safety program, and enforces boating laws.

There is an Oil and Gas Board of Review which consists of five members appointed by the Governor to hear appeals on decisions of the Chief of the Division of Oil and Gas. The 7-member Reclamation Board of Review also performs a similar function for persons appealing decisions of the Chief of Reclamation.¹¹

3.2.3 Soil and Water Conservation Commission

The Soil and Water Conservation Commission was formed pursuant to State legislation enacted in 1941. That legislation, House Bill 646, provided for the formation of the Commission and set forth its responsibilities. The primary mission of the Commission and the early years of its existence was to encourage the formation of local soil and water conservation districts (SWC), and assist the districts in working with individual landowners to adopt land management and conservation practices.¹²

A number of amendments have been enacted since the original legislation was passed. Major legislative actions have included:

- . The granting of authority to Boards of County Commissioners to appropriate funds to local Soil and Water Conservation Districts;
- . Provision for "local organizations" under the Federal Watershed Protection and Flood Prevention Act (P.L. 83-566);
- . Legislation (S.B. 160), enacted in 1969, creating, within the Department of Natural Resources, a Division of Soil and Water Districts, which acts as a staff to the State Commission, and as the Commission's agent in providing assistance to local districts. This same legislation provided the soil and water conservation districts with the authority to carry out water management projects and established State grant programs to assist the Districts in undertaking these projects.
- . Legislation enacted in 1972 assigned the Division the responsibility to develop and recommend agricultural pollution and urban sediment control regulations.¹³

The present and proposed activities of the local districts as authorized by Section 1515 of the Ohio Revised Code bear directly on regulating non-point source pollution.

These districts are empowered under Chapter 1515 to conduct research, develop plans, and construct, operate and maintain improvement works to conserve natural resources, prevent and control floods, and dispose of water from public and private lands.

3.2.4 Department of Health

The Department of Health's jurisdiction is Statewide; however, for many programs policy is set by the Public Health Council (a 7-member State Board of Health) and carried out by local health departments as well as by the Department itself. There are 88 county health districts and 74 city health districts.¹⁵

The Department of Health has an important role with regard to wastewater management. It promulgates regulations covering on site waste water systems serving one to three family dwellings and sewage serving public areas. The Department did prepare a pamphlet entitled, "Recommended Uniform Water Supply Guideline" in 1971. As its title indicates, it is a model set of regulations defining and regulating the design, construction, location and installation of individual systems.

Local health departments may adopt their own standards. They are responsible for monitoring and enforcing either State standards or their own (which must be at least as stringent as those of the State). The State, in turn, periodically surveys local health departments to ensure applicable regulations are being enforced.¹⁶

3.2.5 Department of Agriculture

The Department of Agriculture was created in 1921 replacing a State Board that had been in existence since 1846. It enforces State agricultural legislation and regulations concerning production, handling, and distribution of food for the protection of the consumer; it is also responsible for promoting agricultural development and cooperating with federal departments.¹⁷

The Division of Plant Industry within the Department sets restrictions on the use of pesticides and herbicides. This is a function which can contribute to non-point pollution abatement. The Division restricts the use of specific pesticides and herbicides through a licensing and permitting system. In addition to licensing and permitting, the Division of Plant Industry investigates consumer complaints regarding the misuse of pesticides and participates in the investigation of "pesticide incidents," such as fish kills, resulting from pesticide runoff.¹⁸

3.2.6 Department of Transportation

The Department of Transportation was created by the legislature in 1972 incorporating the previous Department of Highways and adding responsibility for transportation planning in the State and for urban mass transit. The Department has four divisions: the Division of Highways, the Division of Aviation, the Division of Urban Mass Transportation, and the Division of Transportation Planning.¹⁹

With regard to water quality, the Department oversees highway construction, principally sediment erosion control. Guidelines for sediment control are promulgated in the Department's Construction and Materials Specifications. These guidelines must be followed in the construction of State highways and in the construction of any local highways where federal funds are used.²⁰

3.2.7 Ohio Water Development Authority

The Ohio Water Development Authority (OWDA) functions as a major source of funds for wastewater treatment facilities. OWDA floats bonds to finance both municipal and industrial wastewater facilities. Those municipalities borrowing money from OWDA repay the principal and a small financing charge from revenues generated from the facilities. Industries repay the principal and financing charge over a period of years.²¹

3.2.8 Local General Purpose Units of Government

At the local level, there are four general purpose units of government that have some form of authority to control non-point pollution. They are:

- . Townships,
 - . Cities,
 - . Villages,
 - . Counties.
- } Municipalities

3.2.8.1 Municipalities (Villages and Cities)

In Ohio, municipalities are general purpose governments whose forms and powers are specified in Article XVIII of the Constitution and in the municipal code. Municipal corporations are classified as cities if their population exceeds 5000; otherwise an incorporated municipality is called a village. In Ohio home rule powers are granted to all municipalities regardless of size. Home rule simply means the power to govern your own affairs.

Municipal corporations have the authority to appropriate property for public use and may sell any excess so acquired; assess property that benefits from local improvements to pay for such improvements; own and operate a public utility, sell up to 50 percent of the product of the utility outside its own corporation limits (water and sewer services are not subject to the limitation), and issue mortgage bonds to acquire or extend the utility.

Municipalities may provide police and fire protection; municipal light, power, heat and water supply; public band concerts and libraries; hospitals; ship canals or watercourses; places of correction; and public landings, wharves, docks, and piers. They may establish and care for streets, regulate vehicles and the use of streets, impound animals and regulate sanitation, provide for refuse disposal, and regulate weights and measures.²² Municipalities may construct the necessary buildings for police and fire use, purchase fire engines or boats, build airports and offstreet parking, rehabilitate blighted areas, and build limited access highways or freeways. The power to care for streets includes the right to assess benefited property owners. Municipalities have regulatory power. They may plan for the development of their land and its use and implement this plan by zoning.²³

The General Assembly may pass laws limiting the power of municipalities to levy taxes or incur debt and giving municipal electors initiative and referendum power over municipal ordinances.

The corporate authority of the city is usually exercised by the mayor and the common council. The council size varies with the size of the municipality. The council is the legislative body.

3.2.8.2 Counties

In Ohio, counties are created by the State without the consent of people, in order to carry out State law. There are 88 counties in Ohio which vary in size from 232 to 706 square miles, and in population from 10,000 to over 1.7 million. The people of a county must adopt a charter in order for a county government to be able to exercise broad powers.²⁴

Counties are governed by a Board of Commissioners who are responsible for both policy making and policy execution. There is no executive head, although commissioners may appoint one.²⁵

Ohio county governments have extensive powers to create and administer structural and nonstructural water pollution control programs. The program areas of waste treatment, water supply, solid waste, and stormwater control where stormwater is treated as runoff, are backed by statutes elaborating the county's responsibilities for public health and safety. Land use programs come under the traditional heading of county zoning powers.

The commissioners are responsible for the financial management of the county, the management of county facilities, and personnel administration. They approve the annual budget and determine tax levies for county purposes and bond issues for county capital improvement. They may buy and sell land and buildings, manage real and personal property, and provide necessary county buildings. They approve annexations and incorporations and are responsible for rural zoning. They have a wide range of welfare responsibilities, including building regulation and inspection, purchasing, sanitary engineering, welfare and preparation of an annual budget.²⁶

Although counties originally existed strictly as State administrative agencies, they are now developing quasi-municipal functions. Their legal existence and powers are dependent on the State, which significantly increased the potential scope of their activities early in the 1950s by granting to commissioners the authority to enter into agreements with municipalities, special districts, townships or other taxing authorities to perform any service provided by that body.²⁷

3.2.8.3 Townships

The Constitution provides for township government, and for the General Assembly to prescribe its form and powers by general law. Townships exercise only those powers specifically delegated to them by the General Assembly.

The present 1325 townships in Ohio are divisions of the counties. All land areas not incorporated into municipalities lie within the jurisdiction of a township. A township may levy taxes and sue and be sued. It is governed by an elected board of trustees. Responsibilities are those appropriate to a rural area - road maintenance, cemeteries, etc. Many townships located in metropolitan areas, however, now provide more varied and urban-oriented services, such as police and fire protection or zoning.²⁸

3.2.9 Special Purpose Districts

Under the Ohio Revised Code, there are three special purpose units of government which have the authority to control non-point source pollution. They are:

- . Soil and Water Conservation Districts,
- . Conservancy Districts,
- . Sanitary Districts,
- . Regional Sewer and Water Districts.

3.2.9.1 Soil and Water Conservation Districts

Soil and Water Conservation Districts (SWCDs) are created by petition of any 75 landowners within a proposed District and a referendum. They are governed by an elected board of supervisors (five).

The Districts exist primarily for the purposes of studying, planning, and implementing projects for the prevention of soil erosion and flood damage and the development, utilization and disposal of water resources.

SWCDs have the authority to enter into agreements with any occupiers of land to carry out conservation operations and work. The relationships of the Districts with local governments and private citizens vary. They range from assisting a city to develop a sediment control ordinance to delineating a 100-year flood area. They also have the power to accept without qualification as to source donations, gifts, grants and services. The Board of County Commissioners may levy a tax within the 10 mile limitation in behalf of a district.

These authorities have provided the basis for involvement by the local districts in agricultural and urban sediment pollution abatement programs. Up to the present, the programs have been primarily concerned with agricultural resource conservation, and have been voluntary. Recent changes to the enabling legislation authorized the Division of Soil and Water Districts to develop regulations to control agricultural and urban sedimentation. Under the proposed legislation, the districts, and in some cases the Division, would be authorized to adopt and implement such regulations through voluntary compliance.

3.2.9.2 Conservancy Districts

A Conservancy District (CD) is created by petition of landowners or governing bodies to a Common Pleas Court. A CD is operated by a governing body appointed by a Common Pleas Court.

Under Section 6101.04 of the Ohio Revised Code Districts are authorized for one or more of the following purposes:

- Preventing floods;
- Regulating stream channels by changing, widening, and deepening the same;
- Reclaiming or filling wet and overflowed lands;
- Providing for irrigation where it may be needed;
- Regulating the flow of streams and conserving the waters thereof;
- Diverting or, in whole or in part, eliminating watercourses;
- Providing a water supply for domestic, industrial and public use;
- Providing for the collection and disposal of sewage and other liquid wastes produced within the district;
- Arresting erosion along the Ohio shoreline of Lake Erie.

However, Conservancy Districts, upon creation, are not automatically endowed with the nine aforementioned purposes. Rather these purposes must be specifically stated or enumerated in their petition to the Court of Common Pleas. The bulk of CDs' activities are related to flood control. The involvement of CDs with water quality activities is growing.

The ORC makes no differentiation between point and non-point sources of pollution, stating only that one of the purposes for establishment and existence of the Conservancy District is "providing for the collection and disposal of sewage and other liquid wastes produced within the district (Section 6101.04(H))." However, if it is assumed that the approach to non-point source pollution consists of land use control or land management techniques, the role of the CD is most likely limited to technical studies since the Conservancy District Act does not provide for the use of police powers.

Districts have the authority to issue bonds, levy property taxes with voter approval, and fix rates and assessments.

3.2.9.3 Sanitary Districts

A Sanitary District (SD) is created by petition of landowners or a governing body to a Common Pleas Court. The District is governed by a body appointed by the enabling body.

SD's are authorized for one or more of the following purposes: providing sewage disposal, garbage disposal and water supply.

SD's have the express authority to construct, preserve, operate and maintain, in and out of said District, treatment and disposal works, and any other works and improvements deemed necessary to accomplish the purposes of the District.

SD's may issue bonds, levy property taxes with voter approval, levy assessments, and impose charges.

3.3 LEGISLATIVE FRAMEWORK

The legislative framework for the State of Ohio is made up of the various different laws relating to water quality and their effective implementation by the institutional structure. This framework is presented in summary form in Table II, Summary of Legislative Framework. A summary of the evaluation of the implementation is presented in Table III, Summary of Analysis. The following subsections present in more detail the legislative framework and the evaluation as summarized in the two tables. Each table is accompanied by a page of notes identifying different symbols that are used on the table and any specific clarifying comments.

TABLE II

OHIO

SUMMARY OF LEGISLATIVE FRAMEWORK

CHAPTER	LAND USE CATEGORY									IMPLEMENTING RESPONSIBILITY				TYPE OF CONTROL					COMMENTS/IMPLEMENTING AGENCY		
	Urban	Agriculture	Liquid/Solid Waste	Transportation	Shoreline Landfill	Extractive Operations	Recreation	Lakes & Riverbanks	Forest	Regulations	State	County	Municipality	Special District	Direct (PC)	Planning (P)	Indirect (OS)	Non-Statutory (NS)		Management (MP)	Fiscal (F)
Ohio Soil & Water Conservation District Law	X	X								YES	X			X	X			X		X	Department of Natural Resources Soil & Water Conservation District Ohio Conservation Commission
Chapter 3734, Solid Waste Disposal Act			X							YES	X		X	X	X						Ohio EPA, Local Boards of Health
Ohio Pesticide Law, Regulations		X								YES	X						X				Department of Agriculture
Chapter 1513, Strip Mining & Reclamation of Mined Land							X			YES	X						X				Department of Natural Resources
Chapter 1514, Surface Mining & Reclamation of Mined Land							X			YES	X						X				Department of Natural Resources Reclamation Board of Review
Chapter 1509 Oil and Gas							X			YES	X						X				Department of Natural Resources
Home Rule Powers Sections 2, 3, & 7 Article XVIII	X		X	X						NO		X	X		X	X	X		X		Cities, Towns, Villages, Counties
Chapter 3745 EPA Enabling Legislation	X	X	X	X	X	X	X	X	X	NO	X				X	X	X				Ohio Environmental Protection Agency
Chapter 343 County Garbage & Refuse Disposal Districts			X							NO		X			X	X	X		X	X	Board of County Commissioners
Draft Agricultural Pollution Abatement & Urban Sediment Pollution Abatement	X	X								NOT YET	X			X	X	X		X		X	Department of Natural Resources
Chapter 6123, Solid Waste Projects			X							YES	X					X	X		X	X	Ohio Water Development Authority
Chapter 6101 Ohio Conservancy District Act	X	X	X							YES				X	X	X			X		Conservancy Districts
Sanitary District Act Chapter 6113										YES				X	X	X					Sanitary Districts

NOTES -- TABLE II

1. Land Use Categories -- See Chapter 2, for definitions and identification of the land use activities in each category. An X indicates that the land use category is addressed by the Act. It does not indicate the adequacy of authority or degree of implementation. See page reference for discussion.
2. Regulations Adopted -- Have regulations been adopted to implement the legislation? Symbols refer to:
 - Yes -- Regulations have been adopted
 - No -- Regulations have not been adopted
 - NA -- Information not available or in case of Non-Statutory Control, not applicable.
3. Implementing Responsibility -- The key agencies and/or levels of government that have responsibilities in implementing the legislation. Specific agencies, municipalities and/or special districts are identified in the comments section.
4. Type of Control -- See Chapter 2, Section 3, for definitions of each type of control.
5. An X indicates that the category is addressed by the act identified, it does not identify the adequacy or degree of implementation.

LAND USE ACTIVITY	Magnitude of the Problem ¹	Current Activity ²	Staffing ³	Financing ⁴	Likely Future Activity ⁵	COMMENTS
Urban	NI	IP			L,R	
Site Runoff	L,R	--	--	--		Note pgs. 30-32, 59-60
Stormwater Runoff	NI	NO	NA	NA	NO	Note pgs. 32-33.
Agriculture		EP			R,	
Pesticides	L	R	+	--	EP	Note pgs. 33-34, 60
Fertilizers	UK	TK	NA	NA	NO	Note pg. 35
Feedlot Operations	M	IP, L,R	--	--	L, R,EP	Note pgs. 35-37, 60
Erosion from Farm Practices	M	IP L,R	--	--	L, R,EP	Note pgs. 37-40, 61
Drainage	L	UK	NA	NA	NO	Note pg. 40
Liquid, Solid, Deepwell Disposal					L,	
Solid Waste	M	EP	--	--	IP	Note pgs. 41-43, 62
Liquid Sewage Sludge	M	EP	NI	NI	R	Note pgs. 43-44, 62
Private Sewage Disposal	M	EP	--	--	L	Note pgs. 44-49, 62
Transportation Corridors						
Highway and Road Runoff	L	EP	NA	NA	NO	Note pg. 49
Railroad Runoff	L	EP	NA	NA	NO	Note pg. "
Airport Runoff	L	EP	NA	NA	NO	" " "
Utility Rights-of-Way Runoff	L	EP	NA	NA	NO	" " "
Shoreland Landfilling						
Land or Construction Excavation	NI	EP	NA	NA	NA	Note pg. 49
Dredging	NI	EP	NA	NA	NA	Note pg. 49
Extractive Operations						
Pits and Quarries	L	EP	--	--	EP	Note pg. 50
Mining	M	EP	--	--	EP	Note pgs. 51-52
Brines from Oil and Gas	M	EP	--	--	EP	Note pgs. 50-51
Recreation						
Runoff from Specific Activities	L	NA	NA	NA		Note pg. 52
Pesticide Use	L	EP, R	--	--	R, EP	" " "
Private Sewage Disposal	L	EP	--	--	L	" " "
Lakeshore and Riverbank Erosion						
Erosion	UK	NA	NA	NA	NA	Note pg. 52
Forest						
Timber Production	UK	EP, IP	O	O	IP, EP	Note pg. 53
Woodland Grazing	UK	NA	NA	NA	NA	" " "
Wildlife Management	UK	NA	NA	NA	NA	" " "
Recreation	UK					" " "

NOTES FOR TABLE III

1. Magnitude of the Problem -- The degree that the land use activity is reported to be a problem and/or perceived to be a problem by local or State officials. Symbols refer to:
 - S -- serious
 - M -- moderate
 - L -- low
 - UK -- yet to be determined
 - NI -- information not available.

2. Current Activity -- The land use activities where current activities are focused primarily at the State level. Activities of major emphasis are noted with asterisks (*). The types of activity are:
 - L -- development of new or improvements to legislation
 - R -- development of or improvements to the regulations
 - IP -- implementation of incentive programs
 - EP -- enforcement of control programs
 - TR -- technical research is needed to determine the type of controls needed, if any
 - NO -- no action
 - NA -- not applicable
 - NI -- information not available.

3. Staffing - The adequacy of staff assigned to the implementation of legislation addressing the land use activity. Symbols refer to:
 - + -- too many staff resources applied
 - 0 -- an adequate amount of staff resources applied
 - -- an inadequate amount of staff resources applied
 - NA -- not applicable
 - NI -- information not available

4. Financing -- The adequacy of the financing appropriated to the implementation of legislation addressing the land use activity. Symbols refer to:

- + -- too much financial assistance
- 0 -- adequate financial assistance
- -- inadequate financial assistance
- NA -- not applicable
- NI -- information not available.

5. Likely Future Activity -- The land use activities where there is likely to be future activity primarily at the State level. The types of activity are:

- L -- development of new or improvements to legislation
- R -- development of or improvements to the regulations
- IP -- implementation of new or improved incentive programs
- EP -- enforcement of new or improvement of control programs
- NO -- no action
- NA -- not applicable
- NI -- information not available.

3.3.1 Urban Areas

3.3.1.1 Construction Site Runoff

Magnitude of the Problem

New construction sites in urban areas can exert a non-point source loading of sediments up to 500 times greater per unit area than is evident in agricultural operations. Construction is an extensive land use disturbing activity and places urban lands under significant pressures and unstable conditions, resulting in a high loss of topsoil.²⁹ The problem is directly related to the growth of a specific area and the resulting demands for additional housing and commercial and industrial construction. Thus, the problem is greater in some urbanized areas than others.

In Ohio in 1971, there were 6,000 commercial building permits and 4,611 new home permits issued.

Current Activity

Cities, villages, towns, and counties can control urban activities through their powers to enact and enforce zoning ordinances, subdivision regulations, and building and sanitary codes, and to adopt a development plan. Cities, villages, towns, and counties have their general enabling legislation spelled out in local municipalities' powers over planning and indirect control of pollution-generating activities, as well as the responsibility for providing adequate management of any lands they own.

The Soil and Water Conservation District Law (ORC Sections 1515.01-.30 and Section 1501.201) provides another source of legislative authority that can control construction site runoff. Currently Districts can directly control site runoff through land management regulations, approval of facilities construction for planning activities, through the preparation and adoption of conservation and comprehensive plans, and indirectly through information and technical assistance programs.

The Districts are governed by a board of five locally elected supervisors. The board of supervisors of the Districts have the authority to enter working agreements with other local, State and federal agencies and entities for the purpose of implementing their conservation programs. Districts in Ohio have such agreements with the U.S.D.A. Soil Conservation Service, the Cooperative Extension Service, various divisions of the Department of Natural Resources, counties, townships, municipalities, and others. Some Districts receive special assessment funds to operate specific projects in cooperation with the counties. In addition to an average of nearly three District employees in each local office, the SCS provides at least one professional conservationist and in many cases a conservation technician to each office. There are 88 such Districts in Ohio having boundaries corresponding to county boundaries.

Districts have a long history and an excellent track record of assisting (not requiring) landowners to plan and apply "best management practices" to the land for the purpose of soil and water conservation.³¹

In 1971 legislation (Senate Bill 305) required the Division of Soil and Water Districts, Department of Natural Resources and two Advisory Boards, including representation from the Districts, to develop an agricultural and urban sedimentary pollution control program. To date, legislation that would authorize such a program has been developed and submitted to the Ohio General Assembly for approval. (Only the urban sediment program will be discussed in this section.) The Bill (Sub H.B. 513) as initially proposed to the Ohio General Assembly provided County Commissions with the authority to adopt rules requiring management practices to control the rate of runoff, thus sedimentation, on land areas being disturbed outside of municipalities purposes. Municipalities are also given the opportunity and encouraged to implement a local ordinance or control program equal to or stronger than the State standards and regulations. The Chief of the Division of Soil and Water Districts is given this same authorization; however his rules would not be applicable in counties and municipalities already enforcing their own rules which meet or exceed those required by the Chief. Local governments will enforce the urban sediment pollution abatement program.

The Bill controls the activities of anyone involved in grading excavation, filling, or other earth disturbing activities which may result in erosion or sediment pollution. Anyone involved in such earth disturbing activity on areas of five acres or larger must submit a sediment control plan for approval before beginning such activities. The landowner or developer's plan must meet a minimal level of conservation standards.

If the legislation should pass, technical assistance training programs will be available through the Districts. Funds to cover additional costs may be obtained by an increase in permit fees. For the small developer, where no plan is required, information on erosion and sediment control techniques would be provided at the time the building permit is issued.³³

The following details practices that could be utilized to control erosion and sediment pollution:

- Limiting disturbed area and time of exposure;
- Preserving and reusing topsoil to reduce accelerated runoff;
- Prompt revegetation, mulching, temporary vegetation;
- Avoiding disturbance of critical erosion hazard areas;
- Constructing diversions, grassed waterways, terraces, grade stabilization structures, etc.;
- Using detention basins for sediment and stormwater control.³⁴

Aside from erosion of soil sediment from land areas being developed for housing, industry, and shopping centers, the program also addresses transportation, utilities and other non-farm land disturbing activities in the municipality or county.

A modified version of the aforementioned Bill passed the House in September. The urban sediment control program. The enforcement powers of the Division of Soil and Water District and Counties were deleted. The Bill is currently awaiting further action in the Senate.

Evaluation

Municipalities and local Soil and Water Conservation Districts both exercise control of site construction runoff.

In general, the municipalities have adequate authority to pass the necessary local ordinances to control construction site runoff.

There are a few cities which have adopted urban sediment control ordinances, one of which is Cincinnati. Some of the ordinances which have been adopted do not have enforcement measures. In the cases where local jurisdictions do have enforcement powers, they are not practicing them. According to an interview with one State official, the lack of enforcement partially reflects the building inspector's lack of familiarity with what to look for.³⁵

Local Soil and Water Conservation Districts have the authority to recommend and adopt regulations for land management activities. Several districts are currently involved in urban soil erosion control. The new legislation will expand and encourage local SWCDs, municipalities and Division of Soil and Water Districts to develop and implement urban sediment control program.

The final version of the legislation has yet to be determined. It is thought it will be adopted in some form by the early part of 1978.

3.3.1.2 Stormwater Runoff

Magnitude of the Problem

Pollution from stormwater runoff normally occurs in one of two ways: (1) where the stormwater is combined with raw sewage in a combined sewer system; and excess flow exceeds the capacity of the treatment plant, resulting in the combined raw sewage and stormwater bypassing the treatment plant and going directly to the receiving stream; or (2) where the stormwater is separated from the sewer system but goes directly to the stream without any kind of treatment. The combined sewer problem has been defined as a point source problem and will not be discussed here. The separated system is currently defined as a non-point pollution problem, since stormwater begins as non-point runoff and only gains point source characteristics after it has

been collected in the storm system. Little data is available that adequately describes the severity of this problem in Ohio.³⁶

There are 330 separated stormwater systems. This covers most of the major cities in the State.³⁷

Current Activity

Stormwater runoff may be controlled by municipalities or sewer districts. Under Section 735.01-735.02 (ORC) each city is empowered to establish a department to manage and supervise all public works which include sewers, drains, ditches, and sewage disposal works. Each of these municipalities also has the power to construct and plan stormwater sewers. The sewer districts derive their legal authority for water pollution control similar to municipalities from Chapter 6117 of the ORC.

Under the drainage laws counties may also control stormwater runoff through their authority to construct and make improvements to ditches. Ditch improvements can only be initiated by property owners' petition, and can only be constructed if the assessment of benefits is found to be greater than the costs (Section 6131 ORC) County Engineers are responsible for the implementation of Ohio drainage laws. Engineer ODNR is additionally responsible for administering the Ohio Drainage Laws (Section 6131 ORC). It reviews drainage plans and specifications drawn up by the counties, however, the counties need not be bound by their ruling.

Evaluation

In regard to controlling stormwater runoff, there is little communication or coordination between the County Engineers and ODNR. Some of the counties are unaware as to which division of ODNR is responsible for administering the Drainage Laws.¹¹⁴

The Laws do not, however, give the counties the authority to service ditches without successful petition by landowners being sewerred (Section 6131.04). Although drainage improvements may be necessary (especially in areas where rapid growth has occurred) opposition to costs by some of the benefiting parties may cause the petition process to be unsuccessful, thus hampering any needed improvements and/or expansions.

The method of financing also constrains ditch maintenance and construction. The Laws allow counties to use only direct assessments of benefiting parties to cover maintenance fees of construction costs (Section 6131.15). The problem here is determining the benefits that people upstream are receiving. These people contend that their property values have not increased due only to construction downstream, and are therefore unwilling to be assessed for any so-called benefits they received. This method works well in areas which are still primarily agricultural and serve only a limited number of properties; however, assessing affected homeowners in subdivisions built on former agricultural lands is an expensive process, and often unsuccessful. This builds up resistance to ditch expansion in suburban areas, where homeowners may not realize the need for effective drainage.

It has been expressed by the counties that for the aforementioned reasons, countywide sewer and drainage districts as well as countywide or municipal assessments would be more effective than the existing district system now in effect.³⁸

Counties have the authority to issue bonds, levy taxes and assessments and acquire land for activities by eminent domain. This enables them to actively undertake stormwater projects such as retention basins, etc.

The County Engineers are primarily concerned with supplying adequate drainage facilities for the county rather than the facilities' proper management. The counties do, however, have the authority to actively participate in planning programs to control runoff, especially in terms of dictating land use and funding mechanisms. Little attention is given to the degradation of water quality caused stormwater runoff.

3.3.2 Agriculture

3.3.2.1 Pesticides

Magnitude of the Problem

In Ohio, as over the Nation, there is growing recognition that pesticides can have a serious adverse effect on our very complex environment. Some of the most toxic pesticides at the time of application persist but a short time after application and have a lesser effect on the environment, as a whole, than some of lower toxicity but longer persistence. The more toxic pesticides present special problems, especially if humans are exposed.

The largest use of pesticides in the State is for weed control in the production of corn and soybeans. Atrazine is used extensively on corn. Herbicides are applied to about 45% of the cropland on which corn and soybeans are grown (6,700,000 acres).³⁹

Overall, however, the use of pesticides has a low level effect on surface water quality.⁴⁰

Current Activity

On September 1, 1976 the Ohio Pesticide Law, Chapter 921, became effective. Under the Statute each pesticide sold, distributed, and transported in the State must be registered with the Department of Agriculture. In addition, the law requires custom applicators, public operators, limited commercial applicators, and private applicators to obtain a license issued by the Department of Agriculture. Pesticide dealers must also be licensed.

Each licensed applicator is required to keep a record of pesticide application for a 3-year period. The storage, transportation and disposal of pesticides and containers is also regulated.

Two years ago the Plant Industry Division of the Department of Agriculture, with the cooperation of the Cooperative Extension Service, initiated a training program for certifying applicators. The majority of commercial applicators (approximately 1500) in the State have been certified. To date, 9,000 private applicators have been certified. The number of private applicators who need to be certified has not been identified. Some estimate the figure to be close to 20,000. Only recently have private applicators been required to obtain a license. This is the reason for the large number of uncertified private applicators. The Plant Industry Division is assisted by the staffs of other divisions during examination periods.

The law also requires that applicators be certified every 3 years to ensure that the applicators have up-to-date information with regard to pesticides. The Standards Committee is in the midst of determining recertification requirements. This is the first year for recertifying since the program was initiated. Continuing education programs administered by the industry's associations has been a suggested method of fulfilling recertification requirements. Continuing education programs operated by the local SWCD's for private applicators have also been suggested as an alternative. Re-examination is, of course, a method of assuring recertification.⁴¹

There are six pesticide control specialists for the entire State of Ohio. They are responsible for ensuring that pesticide applicators and dealers act in compliance with the Pesticide Law. Specialists visit pesticide users on a regular basis to review their recordkeeping. They administer the certification examination and visit county meetings to lecture applicators on any new laws or regulations. They do not monitor applicators on a routine basis.⁴² Most of the specialists' on-site visits are prompted by complaints.

Evaluation

Ohio appears to be meeting the standards established in the Federal Environmental Pesticide Control Act of 1973. The training program is in its initial stages of operation. It appears to be operating smoothly. The policy decisions on many issues are in the testing stages and will need to be re-evaluated periodically. To keep up with the increasing number of certified applicators and applicants for the certification program, the Department will have to expand its program. It has already applied to USDA for an enforcement grant. The staff will also need to expand.⁴³

3.3.2.2. Fertilizers

Magnitude of the Problem

Agricultural land is estimated to contribute approximately 20 percent of the total phosphorous loading in the Great Lakes and approximately 30 percent of that contributed by tributaries to the Great Lakes. Unfortunately, sufficient information is not available to compute the proportion of nitrogen loadings contributed from agricultural lands, although it may be similar to the amount estimated for phosphorus.⁴⁵ Thus, while it is recognized that there are pollutant problems with fertilizer application, the problem of what to control and how to write controls must be addressed. Specific to the application of fertilizers is the determination of the application rate, method of application, and the impact of different types of practices on water quality.

Current Activity

Ohio currently does not have any direct controls on the application of fertilizers. Through its assistance program, the Cooperative Extension Service provides farmers with information as to the time, method, and amount of fertilizer to apply.

Evaluation

Because the impact of fertilizers in relation to time and method of application is unknown, no regulations have been developed to limit their effect on stream and groundwater quality. It was suggested that nutrient effects on water quality could be limited by implementation of better management practices, such as soil erosion and control programs.⁴⁶

3.3.2.3. Feedlots

Magnitude of the Problem

Animal wastes can become serious pollutants of water. To date there are approximately 80,000 animal feedlots in the State. The Ohio Division of Soil and Water Districts estimates that 18% of those feedlots need some type of corrective action. A smaller percentage of those feedlots generate serious water pollution problems. The bulk of Ohio's feedlots are excluded from point source regulation by virtue of EPA farm size definitions.⁴⁷

Current Activity

In Ohio, the Cooperative Extension Service, in cooperation with the Department of Agriculture, has issued a set of guidelines entitled, "Livestock Waste Management Guide." The guidelines provide livestock producers, agri-businessmen

and public entities with a basis for making sound management decisions which are compatible with water resources statutes. The guidelines are primarily concerned with controlling surface and groundwater pollution problems associated with manure storage systems, application, feedlot runoff, and odor control.

Animal feedlot operators excluded from EPA requirements are not required by law to follow the guidelines. However, the majority of operators in Ohio are thought to voluntarily comply with management guidelines. To date, Cooperative Extension Service provides educational services. The Extension staff members also work with county, area and State Extension advisory committees to identify major problems and methods of solving problems. They additionally assemble facts and scientific research with regard to livestock waste management. The Ohio Division of Soil and Water Districts coordinates the activities of the local Soil and Water Conservation Districts to encourage livestock owners and operators to apply the required levels of operation and management for pollution abatement. Each Soil District provides information, technical assistance and cost-share assistance when requested. Ohio Environmental Protection Agency is responsible for issuing discharge permits for the OPDES program.⁴⁸

The proposed Sub H.B. 513 -- Agricultural Pollution Abatement Program -- contains regulations and standards for pollution caused by animal waste pollution. (See construction site runoff section.) There is a provision in the Bill that limits Ohio EPA's jurisdiction to animal waste treatment facilities over 1,000 animal units, as defined in the U.S. EPA regulations.⁴⁹

A cost share proposal is also included in the Bill to enhance water quality by controlling pollution of public waters by animal wastes. The proposal is designed to provide a strong incentive to encourage compliance with the program. Through the program, livestock producers are encouraged to consider proper management of animal wastes as a production cost. Cost-share funds are proposed only to assist in upgrading existing animal facilities to meet standards. Operations constructed, expanded or reactivated after implementation date will not be considered eligible.

Under the proposed standards and regulations, no person is permitted to store, handle, treat or dispose of animal wastes that are likely to pollute public waters or groundwater in excess of State Standards.

It is the intent of the legislation that animal waste pollution control be achieved by developing a vigorous program involving districts and other cooperating agencies. This program will encourage good waste management practices. It will be based on a no-discharge method of handling wastes and recycling back to agricultural land according to the good practice guidelines in the Ohio Livestock Waste Management Guide developed by the Ohio Cooperative Extension Service⁵⁰ in cooperation with other agencies.

Evaluation

Statewide rules need to be adopted for the management of animal wastes. The farm industry also needs technical and financial assistance to solve waste problems. In the interim, extensive education and citizen participation programs will continue. This overall effort will result in the best management practices for agricultural feedlots.

3.3.2.4 Erosion from Farming Practices

Magnitude of the Problem

There are 9,351,000 acres of tilled land. There are 100,000 farmers in Ohio. The majority of farmers are currently participating voluntarily in soil and water conservation, land use, and water management programs and meet established guidelines. It is thought that 5% of the farmers are creating 75% of the problems experienced in the State.⁵¹

Current Activity

As discussed in the site runoff section, sediment control can be administered by Soil and Water Conservation Districts. Under the present Ohio program, Soil and Water Conservation Districts are responsible for assisting landowners and operators in meeting established soil and water conservation standards. The U.S. Department of Agriculture's Soil Conservation Service (SCS) provides technical assistance, and the Ohio State University Extension Service assists with technical information and education programs. The OEPA has responsibility for establishing and enforcing air and water standards, but specific programs for agricultural pollutants and urban sediment pollutants have not yet been developed.

While enforcement procedures for agricultural lands are lacking, local ordinances adopted by some counties or municipalities require erosion and sediment control for development or other land disturbing activities prior to issuing rezoning classifications or building permits. Local jurisdictions with such ordinances look to conservation districts and the SCS for technical standards and plan review.⁵²

The DNR is confident that the proposed agricultural pollution control program will strengthen control of pollution caused by agricultural activities. The proposed legislation would empower the Chief of the Division of Soil and Water Districts to establish rules and procedures for administration and enforcement of an agricultural pollution program (Sub H.B. 513). Under the proposal, the Chief would enter into cooperative agreements with conservation districts to obtain compliance with rules and orders by the Chief. The Chief would have the power to enter all lands to inspect and investigate conditions and to request the Attorney General to bring action for noncompliance with the rules of the Division. This would shift responsibility for enforcement from the OEPA to the ODNR. This proposed shift is appropriate, and the standards to be used are a required level of conservation or management standard rather than air and water quality standards.⁵³

The proposed legislation will cover agricultural pollution including soil sediment, attached substances, and animal waste. The program will be carried out by ODNR, Division of Soil and Water Districts, in cooperation with local conservation districts.⁵⁴

The proposed program provides for the adoption of Soil Loss Tolerance Factors utilizing the Universal Soil Loss Equation and for animal waste control. It also provides for State financed cost sharing for installation of needed practices to meet agricultural soil loss limits and for animal waste control.⁵⁵

See Figure 2, an organization chart of local Soil and Water Conservation Districts, under the proposed program.

The Division of Soil and Water Conservation Districts conducted a workload and manpower analysis with the 88 Soil and Water Conservation Districts to determine costs and staffing of the proposed program needs. This survey showed an average new need of one professional Pollution Abatement Specialist and one Pollution Abatement Technician for each conservation district for a 10-year period.⁵⁶

Manpower needs will vary during program phase-in and as management efficiencies and personnel training are achieved. According to an interview with one official at the DNR, 50% of the farmers would not be affected if the new program was instituted (these farmers are already in compliance); 40% of the farmers would be affected to a minor degree; and 5% would be affected to a large degree.⁵⁷ In addition, a few new positions would be required at the State agency and area levels.⁵⁸

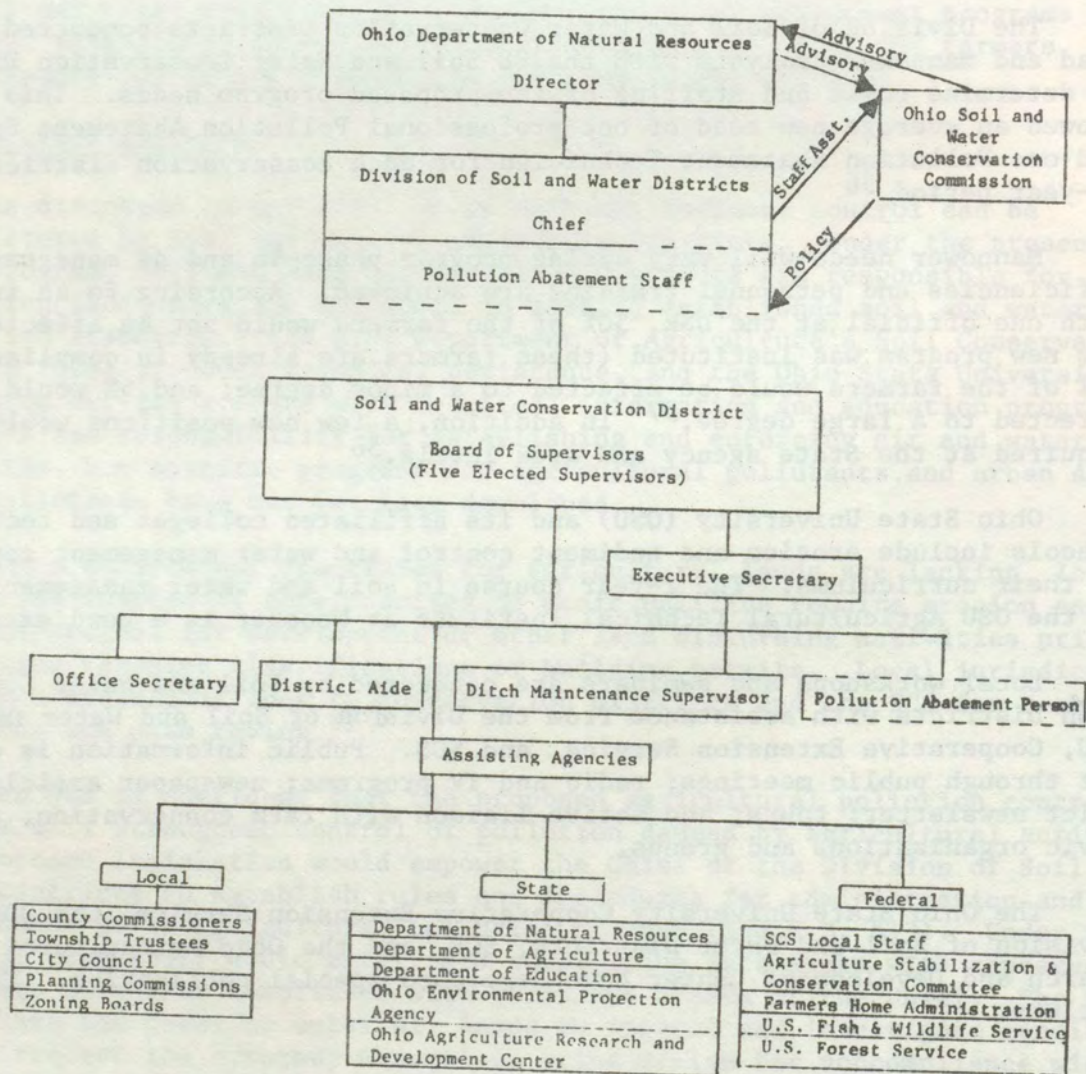
Ohio State University (OSU) and its affiliated colleges and technical schools include erosion and sediment control and water management courses in their curriculums. The 2-year course in soil and water management offered at the OSU Agricultural Technical Institute at Wooster is a good example.

Local workshops and seminars are conducted by Soil and Water Conservation Districts with assistance from the Division of Soil and Water Districts, OSU, Cooperative Extension Service, and SCS. Public information is carried out through public meetings; radio and TV programs; newspaper articles, district newsletter; tours; and active liaison with farm conservation, and civic organizations and groups.

The Ohio State University Cooperative Extension Service, the ODNR Division of Soil and Water Districts, SCS, and the Ohio Agricultural Research and Development Center have developed special publication. These include:

Figure 2

Chart 11. Organization Local Soil & Water Conservation Districts



- . Ohio Erosion Control and Sediment Pollution Abatement Guide, Cooperative Extensive Service, Ohio State University, Bulletin 594, March 1975;
- . Ohio Livestock Waste Management Guide, Cooperative Extension Service, Ohio State University Bulletin 604, December 1975.⁵⁹

Evaluation

Up to the present, the programs operated by the local Soil and Water Conservation Districts have primarily been concerned with agricultural resource conservation, and have been voluntary. The proposed changes to the enabling legislation would change this by authorizing the Division of Soil and Water Districts to develop regulations to control agricultural and urban sedimentation. The Districts and, in some cases, the Division would be authorized to implement and enforce the regulations. Consequently the role of the Districts would shift from passive (in the sense that the District did not have monitoring and enforcement authority) to active. The shift in the manner in which the Districts carry out their functions will increase their workload to ensure compliance with the regulations and necessitate additional staff at the District level.

Another important component of the agricultural pollution abatement program is the cost-share provision. This provision provides farmers with assistance needed to comply with program regulations. The proposed legislation passed the House of the Ohio General Assembly early in October. The important enforcement provision was deleted from the version of the Bill sent to the Senate. The Senate is expected to act on the Bill in the early part of 1978. Should it pass the program could start as early as July of 1978.

3.3.2.5 Drainage

Magnitude of the Problem, Current Activity, Evaluation

In interviews with State officials, drainage is not considered an important source of non-point pollution.⁶⁰ There are areas in the State that have heavy concentrations of clay soil and consequently have drainage problems. Unfortunately technical solutions to the problem are unknown. It is thought that stabilized ditch banks and alternative methods of tillage (other than plowing) might prove effective in combating the problem.⁶¹

In Ohio County Boards of Commissioners through their Engineering offices have the authority to control drainage. Under the drainage laws counties have the authority to construct and make improvements to ditches. As discussed in the stormwater runoff section, ditch improvement can only be initiated by property owner's petition and then can only be constructed if the assessment of benefits is found to be greater than the costs.

Boards are also responsible for the implementation of the Ohio Drainage Laws. County Engineers are specifically responsible for the administration

Chapter 6131 of the ORC (concerning storm sewers). Subdivision regulations pertaining to drainage in subdivisions located in unincorporated areas of the county, are also subject to the approval of the County Engineer.

The County Engineers are primarily concerned with supplying adequate drainage facilities for the county rather than the facilities' proper management. The counties do, however, have the authority to actively participate in planning programs to control runoff, especially in terms of dictating land use and funding mechanisms.

3.3.3 Liquid, Solid and Deepwell Disposal

3.3.3.1 Solid Waste

Magnitude of the Problem

The problems associated with solid waste disposal in Ohio are:

- . Expanding volumes of solid waste with limited areas for disposal;
- . Refusal of towns to permit municipalities to operate disposal facilities within township jurisdictions;
- . Public resistance to institute new landfill sites;
- . Improper disposal of toxic and hazardous wastes and lack of complete knowledge in this area;
- . Rising costs of collection and disposal services;
- . Illegal dumping/roadside litter.⁶²

Solid waste disposal facilities in Ohio consist of landfills, incinerators and one full-scale resource recovery facility.

There were 228 landfill sites in 1977. This figure dropped to 263 sites in 1972, largely because of closing publicly-owned disposal sites (mainly open dumps) which did not comply with regulations.⁶³

In addition approximately 1,300 open dumps were closed in Ohio between the late 1960's and 1970. There are presently nine licensed incinerators with capacities ranging from less than one ton per day to 600 tons per day. Of these, only two meet EPA air emission standards. There were 16 licensed incinerators in 1975. One resource recovery facility is in operation in Franklin County, Ohio. Resource recovery facilities are in various stages of planning and implementation in several areas of the State.⁶⁴

Land filling activities present the most serious threat to surface and ground water quality in Ohio.⁶⁵ However overall solid waste disposal is not Ohio's most serious water quality problem.

Current Activity

The Ohio Environmental Protection Agency conducts a solid waste management program based on Chapter 3734 of the ORC, entitled Solid Waste Disposal. New regulations (3743-27 and 3745-37) became effective July 29, 1976. These were designed to make the State's solid waste control program more effective and comprehensive. In the past, the regulations offered little guidance in the preparation of plans for new or expanded solid waste facilities, nor did they regulate many plants and other operations having private landfills for waste generated on the same property. The new Solid Waste Disposal Regulation 3745-27 details solid waste disposal operations and 3745-37 details the licensing and other procedural regulations for local health departments and solid waste disposal facilities.⁶⁶

According to interviews at OEPA at the State level, on-site inspections occur once or twice a year. There are six sanitary inspectors for the entire State. Local health departments make on-site inspections on a quarterly basis. They are the first line of enforcement.⁶⁷

In 1974, the Ohio IPA undertook a study to evaluate the capacity for disposal of solid waste, by county, of each landfill and incinerator and associated problems -- 1974 Disposal Practices Survey. This survey is being redone in 1977-78.

The agency has issued a study that presents an overview for a Statewide Solid Waste Management Plan. More specifically, the study shows the potential of resource recovery in Ohio, its framework and problems of implementation. The State Hazardous Waste Plan/Phase III of the Statewide Plan being done by Battelle Columbus is in part a result of the 1975 Ohio Industrial Waste Survey conducted by Ohio EPA.

Counties have the authority, by resolution of any board of county commissioners, to establish or maintain one or more Garbage and Refuse Disposal Districts with a county. The county board has authority to provide for the collection and disposal of garbage and refuse and make appropriate regulations for the construction, protection, maintenance and use of disposal and collection, recycling or resource recovery facilities. The County Boards may also enter, jointly or individually, into agreement for the operation and maintenance of solid waste facilities. Additionally, they may levy taxes to provide for these services.

Municipalities under Article XVIII of the Ohio Constitution also have the authority to acquire, construct, own, lease or secure services for the collection and disposal of solid waste. Like counties, municipalities can levy taxes, and issue bonds or general obligation to finance these services. In general, the powers of municipalities are much broader than towns or counties due to home rule, although statutory powers are similar.

Townships under Section 505 of the ORC are provided with the authority to create sanitary land disposal sites, create a solid waste district, or operate or contract to operate a solid waste disposal system. They are permitted to levy a tax to finance these activities.

Health districts, according to Chapter 3709 of the ORC, are responsible

for licensing and inspecting solid waste disposal sites and facilities. Of the 162 health districts in Ohio, 92 were issued licenses in 1975.

The emergence of resource recovery systems has also made it important to examine institutional arrangements that would allow for the collection of most consumer wastes, the marketing of recovered resources, and the disposal of residue. In Ohio, solid waste resources recovery activities may be practiced by the private sector through traditional governmental units or the creation of special authorities, by the private sector, or a combination of the public and private sectors. In one, the Ohio Water Development Authority (OWDA) may provide an institutional environment in which resource recovery could be implemented by a local government and/or the private sector.

(OWDA) was created in 1968 to assist communities in securing finances for developing water and wastewater systems. Initial financing of this agency came through a statewide referendum for \$100 million, with proceeds intended for loans to communities. With the passage of Section 6123 of the ORC, solid waste facilities were added to the projects that could be financed, constructed, and operated by the OWDA. OWDA has the authority to make loans and grants to governmental agencies and persons and to issue solid waste revenue bonds of the state for the purpose of solid waste facilities. The finances afforded by the initial statewide general obligation bond referendum, however, remain limited to water and wastewater treatment facilities. The city of Akron has solicited the assistance of OWDA for providing \$20 million in solid waste revenue bonds to supplement \$10 million of city and county bonds. OWDA is also assisting Northwest Ohio Solid Waste Management (NOSWM), Toledo, with bonding for a resource recovery facility. Other local jurisdictions have approached this agency for similar bonding assistance.

The bill authorizes OPEA to specifically develop a hazardous waste program. It requires a permit to operate a hazardous waste facility. The permit is to be issued by OEPA. The agency is also responsible for promulgating any necessary regulations and enforcing the law. The regulations detail the design, development, location, construction, installation, ownership and training of personnel to operate a hazardous waste facility. They must also address transporters of hazardous waste. Transporters must also be licensed under the proposed law. The agency is also charged with conducting a survey designating where hazardous waste facilities should or should not be located. The Board of Health of each Health District is delegated responsibility for inspecting, licensing and enforcement of the law.

Evaluation

In Ohio it appears that many of the landfills are becoming filled, leaving no room for expansion or they are being closed because costs for operating in an environmentally acceptable method are no longer cost effective. Eighty-five percent of the incineration capacity is scheduled to be removed from service within the next four years. With the above factors in mind, viable alternatives to conventional disposal must be considered.⁶⁸ It is the Contractor's opinion that the role of resource recovery systems in Ohio should be investigated. Legislation is needed to remove split bidding requirements for resource recovery facilities. Such legislation passed and is waiting for the Governor's signature.

It is also recommended that legislation be adopted to regulate demolition dumps. Additionally legislation should be proposed that would provide for management of hazardous wastes. ORC 3734 needs other revisions to bring it in line with PL. 94-580.

3.3.3.2 Liquid Sewage Sludge

Magnitude of the Problem

Ohio has consistently been ranked as one of the largest manufacturing states in the nation. Therefore it can be accurately assumed that Ohio is among the largest producers of industrial wastes which must be adequately treated and disposed of in order to protect the environment. A survey conducted by the Office of Land Pollution Control, Division of Solid Waste, indicated that they disposed of 2.5 billion gallons of sludge and liquids in lagoon complexes, 151 million pounds per year by land spreading, and 39 million pounds by incineration. There is also a lack of control, of industrial wastes from the generator, through the hauler, to ultimate disposal.⁷⁰

Current Activity

The Office of Land Pollution Control shares responsibility for sludge disposal with the Office of Wastewater Pollution Control. The OEPA has not established a standard policy position on the accepted disposal practices but treats the approval of each sludge disposal procedure on an ad hoc basis. At the present time, OEPA is conducting several demonstration projects in the northwest and southwest sections of the State on land disposal of sludge.⁷¹

Responsibility for the review and approved of plans for sludges and issuance of NPDES permits are handled by the Office of Wastewater. In situations where landfills are used, responsibility lies with the Office of Land Pollution Control. In these cases the Office of Land Pollution Control, licenses solid waste disposal facilities and issues permits and/or licenses for the disposal of sludge. Either Office can permit or refuse to permit a facility.⁷²

Under proposed regulations the policy which requires solid waste permits when landfills are used for sludge disposal would be reaffirmed.⁷³

Local, health departments or districts enforce OEPA solid waste regulations and permits. When land application methods of disposal are used, the enforcement is the responsibility of the OEPA district offices.⁷⁴

Under the law all abandoned wells must be capped. Abandoned wells could present problems in Ohio if not monitored carefully. In the past, some of the casing materials used to cap wells have been insufficient and have corroded. However, proper site selection and aggressive monitoring prevented serious problems from occurring.

Ohio has a law that regulates the disposal of industrial wastes in deep-

wells. Disposal operations are regulated through a permit program. The Division of Oil and Gas, and the Geological Survey Division must approve the plans to drill and operate a well. The Ohio EPA is responsible for issuing the permits. There are 7 deepwells currently operating in Ohio which are dispersed throughout the State. Two new sites are being considered.

Evaluation

The current control for policy on liquid sewage sludge disposal is unclear. There is a need to enact improved regulations and policy with regard to the licensing, operation, and inspection of landfills used for sludge disposal. Additionally, the responsibilities of the Offices of Land Pollution Control and the Wastewater Control must be more clearly defined.

There must also be legislation enacted regulating the transport, handling and disposal of industrial waste haulers. Currently, they are under no comprehensive Statewide regulation, with the exception of limited regulation of contract carriers by the Public Utilities Commission.

3.3.3.3 Private Sewage Disposal

Magnitude of the Problem

In relation to other pollution-generating land use activities, on-site sewage disposal is not considered a serious problem in Ohio. There have been instances where private sewage disposal systems have contributed to water quality problems, particularly in areas of rapid growth.⁷⁵

Current Activity

The Ohio Department of Health has responsibility for private sewage treatment systems serving one, two or three family dwellings. Regulations covering such systems became effective in July 1974, and are contained in HE 29.01-29.20. These regulations establish minimum standards governing design, construction, location, reconstruction, operation and installation of household sewage disposal systems.

They also detail minimum standards governing the issuance of permits for the installers and cleaners of household sewage disposal systems.

The Department of Health is the granted general authority to regulate home water supply for the purpose of abating nuisances and unhealthy conditions. It is not given specific authority to enforce the law. The oversight has provided grounds for contractors and homeowners to challenge the Department's authority to enforce the law. Over 50% of the counties do comply with the regulations established by the Department.⁷⁶ Model legislation has been drafted that would specifically grant the Department power to enforce provisions of the law. In the meantime, the Health Department will continue to conduct educational programs, provide technical assistance, sponsor seminars, and monitor local activities.⁷⁷

The Sanitary Code provides local health districts specifically with the authority to regulate on sewage disposal. There are 88 county and 74 city health districts. In administering the households sewage disposal code each district may adopt locally more stringent provisions when, in their estimation, conditions in their district warrant them. The principal of home rule is very strong in Ohio, thus, many districts have optioned for local variations in their code. The State does periodically survey local health departments to ensure applicable regulations are being enforced. Figure 3 is a copy of the Home Sewage Disposal Program Review Form conducted by the Department. The state health department has no authority to make the districts comply with department regulations.

There are 14 staff members at the State level that are currently involved with home water supply. They are responsible for the program's development as well as enforcement.

The number of individuals engaged in enforcing the law at the local level varies by county. However, on the whole local health departments are understaffed.⁷⁸

By law, a septic tank system must be installed by a registered installer. The local board of health administers the registration program and has the authority to revoke or suspend the installer's registration.

In addition, a permit must be obtained from the board of health prior to the start of the construction of a dwelling to install and operate a household sewage disposal system.

Under the law any person who wishes to create a subdivision is required to submit to the board of health a plan for approval. A lot of subdivision is considered for on-site sewage disposal only upon finding central sewers to be inaccessible, impracticable, or inadvisable. The State of Ohio Environmental Protection Agency makes that determination. Requiring State involvement to establish the feasibility of the community sewerage system for proposed subdivisions has lifted much of the pressure off local health districts to permit individual household sewage disposal systems. Should community sewerage prove a viable alternative, the request for household sewage disposal systems is denied.⁷⁹

HOME SEWAGE DISPOSAL PROGRAM REVIEW

Health District _____ Date _____

Address _____ Phone _____

Regulation: As Stringent _____; More Stringent _____; Less Stringent _____ than
minimum statewide regulations

Enforcement _____

Sanitarians employed in sewage program _____

Estimated man days spent on sewage program per year _____

Register: Installers Yes _____ No _____ Fee _____ Number/year _____

Septic Tank Cleaners Yes _____ No _____ Fee _____ Number/year _____

Septage Disposal:

Methods of Disposal (Number of Sites)

Permits: Application Yes _____ No _____ Fee _____ Number/year _____

Installation Yes _____ No _____ Fee _____ Number/year _____

Operational Yes _____ No _____ Fee _____ Number/year _____

Combination Yes _____ No _____ Fee _____ Number/year _____

Derials _____ Number/year _____

Application for Installation Permit Requires Plot Plan Yes _____ No _____

Soil Evaluation:

Soil Survey of County None _____ In Progress _____ Complete _____

Soil Survey Utilized Yes _____ No _____

Test Pit Required Yes _____ No _____ Depth _____

Soil Specialist Utilized Yes _____ No _____

Percolation Test Required Yes _____ No _____ By _____

Sanitarian Lays Out System On Permit Yes _____ No _____

Construction Inspections: Site Intermediate Final

Operational Surveillance: Septic Yes _____ No _____ Frequency _____

Aerobic Yes _____ No _____ Frequency _____

Total number of inspections per year _____

Types and number of systems installed annually (if estimated, enter est.)

Septic _____ (a) Leaching tile field _____ Failures# _____
(b) Leaching well _____ Failures# _____
(c) Surface sand filter _____ Failures# _____
(d) Subsurface sand filter _____ Failures# _____
(e) Evapotranspiration _____ Failures# _____
(f) Other, Specify _____

Number discharging off-lot _____

Aerobic _____ (a) Leaching tile field _____ Failures# _____
(b) Leaching well _____ Failures# _____
(c) Surface sand filter _____ Failures# _____
(d) Subsurface sand filter _____ Failures# _____
(e) Evapotranspiration _____ Failures# _____
(f) Other, Specify _____

Number discharging off-lot _____

Privy _____ Failures# _____
Total Number Systems _____ Failures# _____

List the acceptable points of discharge _____

List the manufacturers installing aerobic systems in the district _____

Effluent Tests (check): BOD₅ DO SS TS ODOR COLOR OTHER

Laboratory (check): Local-Public State Private Other

Records: Files current - Applications Permits

Files well organized Yes _____ No _____

ODH Forms utilized Yes _____ No _____

Forms adequate and complete Yes _____ No _____

Describe any significant variations from the state regulations: _____

Describe any research, experimental type systems, or novel approaches in Home Sewage Disposal that is currently being undertaken in the district: _____

Comments: _____

*The failures may be estimated by the number of complaints received for any given system the previous year.

Environmentalist

However, if community sewerage is ruled out the prospective building site(s) must be evaluated for installation of a household sewage disposal system. The first consideration is given to an on-site system but off-lot discharge may be considered if site conditions are unfavorable for on-site disposal. In terms of the primary treatment modules permitted by Ohio Sanitary Code the alternatives are the conventional septic tank and the aerobic type treatment plant. There is little which is unusual or innovative in the specified design of the septic tank. The Code does require compartmentalization of septic tanks when the tank volume exceeds 1500 gallons capacity to assure best treatment. This prevents short-circuiting of the influent through the tank and minimizes the chance of solids wash-out under surge flow conditions. The tanks are also over-sized in comparison to the sizes set by other states. The larger size extends the length of time between necessary pumpings of the tank and contributes to the enhanced removal of solids. Covers are required to be extended to grade to permit ready location of and access to the tank for inspection and cleaning. Although a few home owners have protested this provision, alleging it spawns odors and presents a safety hazard to children, no justification for these claims has been found. Rather, it would appear the cover is unsightly to them and detracts from their landscape.⁸⁰

The alternative to the septic tank is the aerobic type treatment plant. During 1975 aerobic units constituted 20% of all tanks installed in Ohio. Currently 80 counties permit them -- i.e., 91% of the counties. Of these, over half utilize them as a component in on-site household sewage disposal systems although approximately 80% of the systems installed in 1975 were utilized in off-lot (surface) discharge applications. Only 8 counties have opted locally to prohibit their use altogether. The State evaluates and approves all aerobic type treatment plants utilized in Ohio on the basis of a minimum of 6 months performance testing. Counties are not encouraged by the Health Department to employ aerobic type treatment plants unless the county conducts a routine surveillance program to assure satisfactory operation and maintenance. According to a survey conducted by the Health Department, only 35% (28 of 80) counties conduct routine surveillance programs.⁸¹

The sole alternatives for the on-site disposal component of the household sewage disposal system in Ohio are discharge to a soil absorption tile field and seepage pit. Any other on-site disposal scheme is legally considered exceptional and can only be permitted under variance provisions of the State Code. Few locations possess sufficient depth of pervious material -- at least 10 feet above the normal groundwater table -- to warrant installation of seepage pits. Thus the soil absorption tile field generally constitutes the only serious consideration in on-site system design.⁸²

3.3.4 Transportation Corridors

Magnitude of the Problem

Transportation affects the quality of surface water through runoff from highways and airports. Oils and salts leaching into adjacent soils, herbicide

applications along roadside and railroad sites, and accidental spillage are also a problem. Certain forms of solid waste, such as litter or debris, are also found near highways and railroads; but nutrient loading is seldom an important runoff from transportation.⁸³ Ohio is considered to have a low level problem with regard to non-profit pollution impacts resulting from transportation systems.

Current Activity

The runoff from different types of transportation facilities is not directly controlled. Municipalities and counties have indirect control through their planning powers.

The Ohio Department of Transportation oversees those aspects of highway construction which impact water quality, principally sediment control. Guidelines for sediment control are promulgated in Ohio DOT's Construction and Materials Specification. These guidelines must be followed in construction of any local highway where federal funds are used.

There are 217 general aviation and commercial airports. There are also 429 private airports. All of those facilities using federal funds must provide for the control of runoff and erosion as set by FAA standards.⁸⁴

Evaluation

Due to the lack of adequate information on the magnitude of the problem, it is impossible to determine what type of controls are needed.

3.3.5 Shoreland Filling

Magnitude of the Problem, Current Activity, Evaluation

There is little information available with regard to the effect of shoreland filling on water quality. In Ohio, the Department of Natural Resources has some authority to control dredging and land excavation activities. The Department is the liaison contact agency with Ohio for all Corps of Engineer projects. The Department operates a permit program. The COE must additionally issue a permit for dredge and fill projects in Ohio. The Dept holds veto power over all structural solutions proposed by COE.

3.3.6 Extractive Operations

3.3.6.1 Pits and Quarries

Magnitude of the Problem

Minimal water quality problems are generated as a result of a pit and quarry operation.⁸⁵ There are some instances of acid mine drainage problems but it is almost impossible to prevent some groundwater from seeping into the mining operation. These incidents of accidents of mine drainage are not within the Great Lakes Basin.

Current Activity, Evaluation

Chapter 1514 of the ORC directly controls surface mining and reclamation of mined land. By law, mine operators are required to obtain a permit to engage in surface mining from the Department of Natural Resources, Division of Reclamation. The application for a permit requires a plan for operation and reclamation of the mined land be submitted. If the application is approved, the applicator is required to post a bond to assure compliance with the approved plan.

There are 26 State and 22 field inspectors with the Division of Reclamation, DNR, that monitor both strip and surface mining sites. The surface mining sites are inspected every 3 months.⁸⁶

While there are some localized problems with pits and quarries, the DNR does not feel that they create any significant problems.⁸⁷

3.3.6.2 Brines from Oil and Gas

Magnitude of the Problem, Current Activity, Evaluation

Since 1860, oil or gas has been discovered in 69 of Ohio's 88 counties. More than 112,000 wells have been drilled in Ohio searching for these commodities. At the present time approximately 27,000 wells are producing oil or gas, or both.⁸⁸ Such wells have become productive at depths ranging from 50 feet to over 8000 feet. Approximately 814 million barrels of oil and over 4 trillion cubic feet of natural gas have been produced in Ohio from 1860 to the present time. The total land area of the State is 26,222,080 acres, of which more than 2,431,390 acres have proven to be productive of oil or gas.

The Division of Oil and Gas supervises and regulates all types of oil and gas field operations in the State of Ohio. It is responsible for the proper development and conservation of oil and gas resources in the State. Created in 1965, the Division operates under the authority of Chapter 1509, Revised Code, and the rules and regulations formulated under the authority of the Division Chief.

The Division issues permits which are required for all wells exclusive of those drilled for fresh water. Maps, records and statistical data are maintained for all oil and gas wells and wells for subsurface disposal of brine and underground gas storage.⁸⁹

Under the law when an applicant applies for a permit he is also required to file a surety bond condition or compliance with restoration requirements with the Division. This is to insure the well will be reclaimed.

Permits are also required to plug wells. They are issued by the Division of Oil and Gas. The law additionally describes methods of plugging.

Ohio has experienced some water pollution problems with wells abandoned prior to the existence of the Agency. To meet this problem the Ohio General Assembly (July 1971) imposed a mineral severance tax. The tax monies will be used to treat orphan wells. No more than 10% of the monies can be used for administrative purposes. Wells in congested areas are expected to be given priority.⁹⁰

Division operations are conducted by a technically and administratively trained staff headquartered in Columbus and a qualified team of oil and gas well inspectors located in various areas of the State. The field staff inspects and supervises the drillings and plugging of all oil and gas wells, and maintains a close liaison with oil and gas operators, municipalities and the general public.

The inspectors make an average of 3.8 visits to a site during a construction of a well. Thereafter, unless a complaint is filed, they visit the well annually.⁹¹

A Technical Advisory Council, consisting of representatives of the oil and gas industry and the public, is appointed by the Governor to serve as an advisory group for the Division. The Council meets with the Chief of the Division several times a year in regard to matters concerning the oil and gas industry and the people of the State of Ohio.

An Oil and Gas Board of Review, representing the legal, technical and operating phases of the industry, is appointed by the Governor to hold hearings and rule on appeals to any orders of the Division.

3.3.6.3 Mining

Magnitude of the Problem

The pollution problems generated from strip mining in Ohio are moderate. Many of the problems Ohio is experiencing are the result of poor mining management practices. Unfortunately many of these operators lack sufficient capital to purchase quality mining equipment.⁹²

Current Activity, Evaluation

Chapter 1513 of the ORC directly controls coal mining and the reclamation of mined land. The statute stipulates that any operator conducting a strip mining operation obtain a permit issued from the Department of Natural Resources, Division of Reclamation. The permit application requires that both a plan for the mining operation and a plan for reclamation of the mined area be submitted for approval.

If the application is accepted, the applicant must post a bond to assure compliance with the approved plan. A small percentage of operators forfeit their bonds. All of the 345 coal mines operating in Ohio are licensed.

There are 26 staff members at the State level and 22 at the local level within the Division of Reclamation that are responsible for monitoring surface and strip mining activities. Active strip mining sites are inspected monthly; reclamation sites are visited every 3 to 4 weeks. DNR would like to see the number of visits to active mine sites increased to ensure current standards are being met. Increased monitoring is one approach that could be used to induce better management practices.⁹³

3.3.7 Recreation Areas

Magnitude of the Problem

This category includes pesticide use and private sewage disposal, both of which were described in earlier sections. The third land use activity, that of runoff that results from specific types of facilities, is not a problem of Statewide concern, although it could be a localized problem from time to time. This is primarily an erosion problem that results in the overuse of a specific section of trails, whether from hiking or other types of use.⁹⁴

Current Activity, Evaluation

The control of water quality, as a result of different recreational activities, falls under the more generalized controls given to the local units of government. These are the zoning powers of the general purpose governments, the building inspection programs, and the Soil and Water Conservation District's programs. The activities of the various different local governments and the control of erosion from specific recreational activities has not been identified.

Currently, there are no recreation land use activities creating major environmental problems in the State. The existing controls seem to be adequate, with the proper staff and resources assigned to enforce the legislation. There are variations at the local level which might make the solution to a localized problem difficult.

3.3.8 Lakeshore and Riverbank Erosion

Magnitude of the Problem, Current Activity, Evaluation

Erosion from the natural actions of a lake or river, and how to control it has not yet been determined. This includes identification of the relationship between various different land use activities and their indirect impact on lakes and streams. Without such a determination, controls cannot be developed.

The Dept. of Natural Resources administers the State's Coastal Zone Management Program. The program is currently in its third year. During the first two years the project activities mainly concentrated on conducting surveys, studies, inventories and soliciting information from the general public. Now during the third year attention has turned to developing policies to implement the program. The agency anticipates recommending 1) a set of general policies which would encourage local governments to adopt ordinances to protect the shoreline, 2) a set of specific actions that the state should take (i.e. additional shoreland authorities instituting shoreland setback requirements to protect against erosion from construction).

Conservancy Districts have the authority to control activities which would contribute to the erosion of the lakeshore and riverbanks.

(a) Under Section 6101.04 of the CRC Conservancy District are organized for any one or more of the following purposes:

- (a) preventing floods;
- (b) regulating stream channels by changing, widening and deepening the same;
- (c) reclaiming or filling wet and/or overflowed lands;
- (d) providing irrigation where it may be needed;
- (e) regulating the flow of streams and conserving the water thereof;
- (f) diverting or in whole or in part eliminating watercourses;
- (g) providing water supplies for domestic, industrial, and public use;
- (h) providing for the collection and disposal of sewage and other liquid wastes produced within the district; and
- (i) arresting erosion along the Ohio shoreline of Lake Erie.

These watershed districts constitute political subdivisions of the State. They have many of the powers and responsibilities of other political subdivisions. However, their jurisdiction extends only to those counties, municipal corporations, or parts thereof, who, by petition from landowners, have agreed to become part of said district (Section 6101.10). Their expressed purpose is to enable local groups of property owners to erect and maintain flood control works.

At present, the conservancy districts in the TMACOG region include the Maumee Watershed Conservancy District and its Ten Mile Subdistrict. Recently, the Maumee Watershed District participated in a joint effort with the State and Village of Archbold to construct a reservoir near the Goll Woods State Forest. The Conservancy District will manage the reservoir.

In general, the Districts have promoted multi-agency studies of water management needs in the Maumee River Basin, with special emphasis on erosion and sediment control. However, it has been reported that no significant contributions toward construction or improvements has occurred in the region, due to funding limitations. The Districts do, though, remain a viable means for inducing comprehensive and coordinated stormwater management planning and control in the area.

County Engineers under the Ohio Ditch Laws can contribute to the control of lakeshore and riverbank erosion. For more detailed information refer to stormwater runoff and drainage sections.

3.3.9 Forested Areas

Magnitude of the Problem

The water quality problems related to forested areas are currently unknown. The Department of Natural Resources does not feel that there are any major problems, but that there may be localized problems, especially in relation to timber production.⁹⁵

Current Activity, Evaluation

No controls of wildlife management or woodland grazing on State or county lands have been identified. From a water quality standpoint, the State has had a long-standing policy opposing woodland grazing.⁹⁶

The division of Forestry of ODNR operates a tax incentive program which provides woodland owners, who agree to operate and maintain their property according to certain standards, a 50% tax reduction. The owners are required to submit a management plan for approval to the Forest Service. The program is voluntary. Good forestry practices can indirectly impact water quality.⁹⁷

With regard to the State's involvement with recreational activities on State owned and operated lands, the Forest Service does not build any recreational facilities in State parks or State forests. Furthermore, a limited amount of camping is permitted in these areas. (See recreational section for a more in-depth discussion of other controls on recreational activities.)⁹⁸

In Ohio, the primary problem with timber cutting does not come from massive clear cutting, but from the construction of timber roads and skid trails. These roads cause heavy sedimentation. There are currently no controls over these roads and trails.⁹⁹

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44. Ibid.
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CHAPTER 4

FRAMEWORK ANALYSIS

4.1 GENERAL

This Chapter presents the Contractor's analysis of the legislative framework for the State of Ohio. The analysis, based on the evaluations of land use activities presented in Chapter 3, identifies the strengths and weaknesses in the framework and the future actions which could correct them. The discussion covers each land use activity in terms of the problem, the current framework, the strength or weakness and the possible future actions.

4.2 ANALYSIS

4.2.1 Construction Site Runoff

In Ohio local jurisdictions do have the power, through their general authority, to directly control site runoff. Some localities have already adopted sediment control ordinances. Some of the ordinances have enforcement provisions embodied in them. In most cases these powers are not practiced. Failure to enforce these provisions stems from the building inspectors unfamiliarity with practices or conditions that would result in erosion.

The Soil and Water Conservation Districts have the power to recommend activities and currently are assisting local jurisdictions in adopting ordinances and developing urban sediment control programs.

There is a bill before the Ohio legislature that would specifically provide either the municipality, the county, or the local SWCD with the authority to control site construction runoff. This legislation would expand the existing programs and encourage other municipalities to get involved.

More specifically, under the new Act anyone involved in earth disturbing activities on areas of five acres or more must submit a sediment control plan before any activity can be conducted. There is also a provision in the Bill that would provide municipalities with enforcement power.

County Commissioners are given authority to adopt rules requiring management practices to control the rate of runoff. The Chief of the Division of Soil and Water District of ODNR is given this authority. However, his rules are not applicable in counties and municipalities already enforcing their own rules which meet or exceed those required of the Chief. Local SWCDs can provide enforcement for a municipality if it so requests under the Act.

The Bill is expected to pass in some form by the end of the year. Should the legislation pass with the enforcement provisions deleted, municipalities, through their general authority, would still technically have the authority to enforce the Act. Costs of this program are the responsibility of all levels of government, local, state and federal, and paid from tax revenues generated under the present tax structure.

The small developer (anyone involved in grading excavation, filling, or other earth disturbing activity on areas of less than five acres) is not subject to the plan approval provision of the Act. However, he will be provided information on sediment control techniques at the time the building permit is issued.

4.2.2 Pesticides

Ohio recently initiated a training program to certify pesticide applicators. The program takes a comprehensive approach to pesticide control. While it is not specifically focused on the prevention of deterioration of the water quality it does have a positive effect on maintaining the quality of the water through its control of pesticides.

The course materials meet EPA standards. In some areas they exceed them. The requirements, with regard to the recertification of private and commercial applicators, have not been finalized. Continuing education programs and/or examinations have been suggested as methods of assuming recertification. The policy decisions on acceptable recertification standards, as well as many other issues, still need further study.

There are only six pesticide control specialists for the entire State. Their responsibilities range from administering examinations to enforcing the law. To keep up with the increasing number of applicators the staff and financial resources need to expand. It is hoped the Department of Agriculture's enforcement grant application is approved by USDA. It will provide the needed resources to operate the training program.

4.2.3. Feedlot Operations

Currently there are livestock Management Guidelines that provide livestock producers, agri-businessmen and public entities with a basis for making sound management decisions which are compatible with water resource management. These guidelines are voluntary for animal feedlot operators who are

excluded from EPA requirements. The Ohio Cooperative Extension Service and the local SWCDs provide assistance to operators who wish to comply with the standards set in the guidelines.

The proposed Agricultural Pollution Abatement Program (also referred to in urban areas, Section 4.2.1) establishes standards and regulations for proper management and operation of animal feedlots. The program is based on a nondischarge method of handling and recycling animal wastes back to agricultural land. The Bill limits Ohio EPA's jurisdiction to animal waste treatment facilities of over 1,000 animal units or more. A cost share proposal is also incorporated in the body of the legislation. Under the Act financial assistance would be available to upgrade existing facilities. Operations constructed, expanded or reactivated after implementation of the Act would not be eligible for funds. Local SWCDs would be responsible for enforcing the program. Additional staff and financial resources will be necessary to implement the program.

The Bill is expected to pass the legislature by the end of the year. The final version of the legislation has yet to be determined.

4.2.4 Erosion from Farming Practices

Currently Soil and Water Conservation Districts assist landowners in meeting established soil and water conservation standards. They operate voluntary programs primarily concerned with conservation. Ohio EPA is responsible for enforcing air and water standards, but no specific programs for agricultural pollution exist.

Legislation (Agricultural Pollution Control Program - also applies to site construction runoff, animal wastes) has been proposed that would specifically authorize the Division of Soil and Water Districts to develop regulations to control agricultural pollution and urban sedimentation. The Act authorizes the Division to implement and enforce regulations if a county or appropriate municipality fails to meet the Division's standards.

In its original form, the Bill also includes a provision for establishing a cost sharing program. A District would cost share with eligible landowners on practices as money became available.

Traditionally the District provided assistance to landowners who voluntarily wished to participate in the program. Passage of the legislation would make the Districts, in some cases, responsible for enforcing and monitoring the programs. Consequently the role of the District would shift from passive to active.

To carry out the new program and ensure compliance with the regulations, additional staff at the District level, and financial resources will be necessary.

As mentioned earlier, the proposed legislation is expected to be adopted in some form by the end of the current session.

4.2.5 Solid, Liquid and Deepwell Disposal

New regulations have recently been implemented to establish a more effective and comprehensive solid waste program in Ohio. The new regulations offer guidance to entities in preparing new or expanded solid waste facilities. They also regulate many plants and private landfills -- sites that previously went unregulated. These new regulations place additional responsibilities on the six State sanitary inspectors who are already overburdened. Local health departments are responsible for licensing solid waste facilities.

Resource recovery is being seriously considered as an alternative to conventional disposal methods. The legalities of carrying out resource recovery activities is currently being investigated.

Legislation needs to be adopted to regulate demolition dumps and to provide for the management of hazardous wastes.

Ohio is among the highest producers of industrial wastes. The State's current policy with regard to sewage sludge is unclear. Disposal practices are treated on a case-by-case basis. There is a need to enact improved regulations that detail procedures for licensing, operation, and inspection of landfill sites used for sludge disposal. There are no controls on industrial waste haulers. They are not required to be licensed. Legislation regulating the transport, handling and disposal of industrial wastes should be implemented.

On-site sewage disposal is not considered a serious problem in Ohio. Most of the water quality problems that the State experiences are in areas of rapid growth. There are regulations that establish minimum standards governing the design, construction and location of household sewage disposal systems. They also govern the issuing of permits for installers and cleaners of disposal systems. Local health departments are responsible for enforcing the law. The Department of Health has no specific authority to require the localities to comply. Consequently the enforcement varies from county-to-county. The Department has drafted legislation that would grant them enforcement powers. When such legislation is adopted the Department will continue to conduct educational programs and provide technical assistance.

4.2.6 Additional Technical Studies

The following areas require additional technical study prior to the determination of the type and need, if any, of control. These areas are:

- Fertilizers,
- Transportation,
- Shoreland filling,
- Lakeshore and riverbank erosion.

and will be... Additional Technical Studies... New regulations have recently been implemented... The new regulations... comprehensive solid waste program in Ohio... The new regulations... comprehensive solid waste program in Ohio... The new regulations... comprehensive solid waste program in Ohio...

On-site sewage disposal is not considered... The Department has drafted legislation... The Department has drafted legislation... The Department has drafted legislation... The Department has drafted legislation... The Department has drafted legislation...

4.2.4 Additional Technical Studies

Additional technical studies... The Department has drafted legislation... The Department has drafted legislation... The Department has drafted legislation... The Department has drafted legislation... The Department has drafted legislation...

PART II

SUMMARIES OF LEGISLATION

2-1 GENERAL

The Chapter presents a summary of the legislative activity for each year and lists the bills and resolutions which were introduced and passed. The legislation is summarized by act with the title and number, followed by a brief description of the act. Where the act is a public law, the title and number of the act are given. Where the act is a private law, the title and number of the act are given.

The summaries are presented in order of Chapters and then alphabetically within each Chapter.

Chapter 209	Health Districts
Chapter 210	Health Districts
Chapter 211	Health Districts
Chapter 212	Health Districts
Chapter 213	Health Districts
Chapter 214	Health Districts
Chapter 215	Health Districts
Chapter 216	Health Districts
Chapter 217	Health Districts
Chapter 218	Health Districts
Chapter 219	Health Districts
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Chapter 295	Health Districts
Chapter 296	Health Districts
Chapter 297	Health Districts
Chapter 298	Health Districts
Chapter 299	Health Districts
Chapter 300	Health Districts

CHAPTER 5
RELEVANT LEGISLATION

5.1 GENERAL

This Chapter presents a summary of the legislative authority for control of land use activities that may cause water pollution. Where information was available, the legislation is summarized by Act with the implementing agency, affected land use activity, purpose, provisions and administrative responsibilities identified. Where the contractor is unable to secure information allowing summarization, the acts are listed.

The summaries are presented in order of Chapters and then alphabetically. A listing follows:

Chapter 343	County Garbage and Refuse Disposal Districts
Chapter 921	Ohio Pesticide Law and Regulations
Chapter 1507	Shore Erosion
Chapter 1509	Oil and Gas
Chapter 1513	Strip Mining and Reclamation of Mines Law
Chapter 1514	Surface Mining and Reclamation of Mined Land, Surface Mining Rules
Chapter 1515	Ohio Soil and Water Conservation District Law
Chapter 3709	Health Districts
Chapter 3734	Solid Waste Disposal Act and Regulations
Chapter 3735	Ohio EPA Enabling Legislation
Chapter 6101	Ohio Conservancy District Act
Chapter 6123	Solid Waste Projects
Chapter 6131	Ohio Drainage Laws
Article XVIII Ohio Constitution	Home Rule Powers
Proposed Legislation -	Pollution Abatement and Urban Pollution Agricultural Sediment Abatement

POLITICAL JURISDICTION: Ohio

Title or Reference: Chapter 343, County Garbage and Refuse Disposal Districts

Implementing Agency: Board of County Commissioners

Affected Land Use Activities: Waste Disposal

Purpose:

To establish garbage and refuse disposal districts and the Board of County Commissioners with duties and responsibilities.

Provisions:

1. States that any Board of County Commissioners may by resolution establish and maintain one or more garbage and refuse disposal districts within its respective county, outside of municipal corporation.
2. Provides the Board with the authority to acquire, construct, maintain and operate such garbage and refuse collection systems within any district and plants and facilities.
3. Provides the Board with the authority to make and enforce regulations for the construction, maintenance, protection and use of garbage and refuse collection and disposal facilities.
4. Prohibits any garbage and refuse disposal system plant or facilities from construction until plans and specifications for the facility have been approved by the Board.
5. Provides the Board with the authority to enter into a contract for furnishing of the garbage and refuse disposal services within the district.
6. Stipulates that the Board of County Commissioners may have a general plan of garbage and refuse disposal facilities prepared by the County Sanitary Engineer.
7. Allows the adopted plan to be amended by a resolution as an "improvement resolution."
8. Authorizes the Board with the power to issue bonds to pay for part of the cost of acquisition, construction or repair of any improvement.

Administrative Responsibilities:

The Board of County Commissioners is responsible for acquiring, maintaining, and operating garbage and refuse collection systems and plants and facilities. The county Sanitary Engineer is responsible for preparing a garbage and refuse facility and plant plan and assisting the Board. Financial advisers and other professional services may assist the Engineer in his duties.

Affected Land Use Activities: Waste Disposal

Purpose:

To establish garbage and refuse disposal districts and the Board of County Commissioners with duties and responsibilities.

Provisions:

1. The Board of County Commissioners may by resolution establish and maintain one or more garbage and refuse disposal districts within the respective county, outside of municipal corporations, and within the county limits, and may acquire, construct, maintain and operate such garbage and refuse collection systems and plants and facilities.

2. Provides the Board with the authority to make and enforce regulations for the construction, maintenance, protection and use of garbage and refuse collection and disposal facilities.

3. Prohibits any garbage and refuse disposal system plan or facility from construction until plans and specifications for the facility have been approved by the Board.

4. Provides the Board with the authority to enter into a contract for the collection of garbage and refuse disposal services within the district.

5. Authorizes that the Board of County Commissioners may have a general plan of garbage and refuse disposal facilities prepared by the County Sanitary Engineer.

6. Allows the adopted plan to be amended by a resolution as an "amendment resolution" and such amendments shall be subject to the same provisions as the original plan.

7. Authorizes the Board with the power to issue bonds to pay for part of the cost of acquisition, construction or repair of any improvement.

POLITICAL JURISDICTION: Ohio

Title or Reference: Ohio Pesticide Law and Regulations, Chapter 921

Implementing Agency: Department of Agriculture

Affected Land Use Activities: Pesticides

Purpose:

To prevent adverse environmental effects from using various pesticides.

Provisions:

1. Requires that each pesticide distributed in the State be registered with the Department of Agriculture.
2. Describes the procedure for registering and the information required to register.
3. Authorizes the Director of the Department of Agriculture to issue experimental use permits.
4. Requires any person who wishes to act as a custom applicator to have a license issued by the Department of Agriculture.
5. Requires that any person acting as a public operator be licensed by the Department of Agriculture.
6. Stipulates that each applicant for a license be examined on his knowledge and competency in the proper use, handling and application of pesticides.
7. States that the Director of Agriculture shall not issue a custom applicator license or limited commercial applicator license until the applicant has submitted to the Director either surety bond, an effective liability insurance policy, or such other evidence of financial responsibility as the Director determines necessary.
8. Requires any person who shall apply or directly supervise the application of a "restricted use pesticide" to be certified as a private applicator.
9. Stipulates that no person shall act as a "limited commercial applicator" without first having obtained a "limited commercial applicator" license from the Director of Agriculture.
10. Stipulates that any person acting in the capacity of a pesticide dealer or who advertises as, or assumes to act as a pesticide dealer at any time must obtain a pesticide dealer license from the Director of Agriculture. Such license shall expire on the last day of February of each year.

11. Requires each licensed custom applicator, limited commercial applicator and public operator to keep a record of all pesticide applications made by him.
12. Empowers the Director of Agriculture to adopt all necessary rules and regulations.
13. Authorizes the Director of the Department of Agriculture or employees designated by the Director to enter upon any public or private property to inspect equipment, etc.
14. Establishes an inter-agency pesticide advisory council to review policies, procedures and existing legislation.
15. Establishes a committee to assist the Director of the Department of Agriculture to establish standards of training, examination and licensing.
16. Empowers the Director of the Department of Agriculture to enforce all provisions of the Act and if the Director believes that a pesticide or device is being distributed, stored, transported, or used that it may be served.
17. Provides that a person who claims damages from a pesticide notify the Director of the Department of Agriculture.

Regulations 901:5-11:01-08

18. Lists the members of the Standards Committee.
19. Describes the procedure for applying for a customs license.
20. Lists the restricted use pesticides and conditions of their use.
21. Details the manner in which pesticides are to be stored and used for agricultural and commercial purposes.
22. Discusses the financial responsibility of each applicator.
23. Indicates the information and materials necessary for recordkeeping purposes.

Administrative Responsibilities:

The Director of the Department of Agriculture is responsible for adopting all regulations necessary for the administration of the Act. Such rules may relate and not be limited to the time, place, manner and methods of application, materials and amounts and concentrations of application of pesticides, may restrict or prohibit the use of pesticides in designated areas during specified periods of time, and shall encompass all reasonable factors that the Director determines necessary to minimize or prevent damage to the environment.

The Director is also charged with classifying pesticides for use, prescribing standards for certification of applicators, and enforcing the provisions of the law. The Standards Committee is designated the responsibility of advising the Department of Agriculture on training, licensing and examination standards.

Attached find the Activities, Laboratory and Field Station

Report

To prevent more efficient, and to provide the Director of

Provisions:

1. Stipulates that the office of the Chief Engineer of the Department of

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POLITICAL JURISDICTION: Ohio

Title or Reference: Chapter 1507, Shore Erosion

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: Lakeshore and riverbank erosion

Purpose:

To prevent shore erosion.

Provisions:

1. Stipulates that the office of the Chief Engineer of the Department of Natural Resources is to act as the erosion agency of the State to cooperate with the beach erosion board of DOD.
2. Prohibits any person from building or constructing or erecting any structure on a beach without submitting plans to the Chief Engineer.
3. Provides the Chief Engineer with the authority to enter into agreement to construct and maintain projects to prevent, correct, and arrest erosion.
4. Stipulates that the Chief Engineer and the geological survey will prepare a plan to prevent shore erosion.

Administrative Responsibilities:

The Chief Engineer, DNR is responsible for cooperating with the beach erosion board in carrying out investigations and studies of the present condition along Lake Erie.

POLITICAL JURSDICTION: Ohio

Title or Reference: Chapter 1509, Oil and Gas

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: Oil and Gas

Purpose:

To regulate the exploration, drilling and production of oil and gas as well as oil field waste.

Provisions:

1. Creates the Division of Oil and Gas within the Department of Natural Resources.
2. Stipulates that no person shall drill a new well, drill any existing well any deeper, convert a well to any other than its original purpose without having a permit to do so.
3. Stipulates that no person shall use a well for the injection of sewage any liquid used in any process of industry, maintenance, or agriculture without a permit.
4. Details the information required when applying for a permit.
5. Requires a surety bond in order to be approved for a permit.
6. Details a schedule for restoring the land surface within an area disturbed in siting, drilling, completing and producing the well.
7. Requires a log to be kept by any one drilling.
8. Disallows any owner of any well to permit defective casing or tubing in a well. Upon notice, said owner shall immediately plug, case, tube, or abandon such well.
9. Requires a permit to plug and abandon a well issued by the Chief of the Division of Gas and Oil and details the requirement of the permit.
10. Requires any person who abandons a well to make a written report on abandonment.
11. Details the methods of plugging abandoned wells.
12. Stipulates that any person who drills a well shall encase the well with good and sufficient wrought iron or steel casing.

13. States that any owners, lessees, or agents drilling for oil must use every reasonable precaution to prevent waste of gas and oil.
14. Sets a minimum size for drilling units and minimum distance requirement.
15. Establishes the oil and gas board of review to listen to the appeals of any persons adversely affected by the order of the Chief of the Division of Oil and Gas. In addition, any party may also appeal to the court of common pleas in Franklin County or in court in the appropriate district.
16. Establishes a technical advisory council on oil and gas to advise the Chief of the Division of Oil and Gas.
17. Authorizes a municipal corporation to enact and enforce municipal ordinances regulating health and safety standards for the drilling and exploration for gas and oil.

Administrative Responsibilities:

The Chief of the Division of Oil and Gas is responsible for adopting, amending, rescinding and enforcing any rules or regulations with regard to exploration, drilling and the production of oil and gas and oil field wastes. The District also issues permits for drilling, deepening existing and new wells. It is also charged with issuing permits for plugging and abandoning wells.

POLITICAL JURISDICTION: Ohio

Title or Reference: Chapter 1513, Strip Mining and Reclamation of Mines Law

Implementing Agency: Division of Reclamation, DNR

Affected Land Use Activities: Mining

Purpose:

To regulate strip mining and reclamation activities.

Provisions:

1. Creates a reclamation board of review.
2. Stipulates that no operator shall engage in strip mining or conduct a strip mine operation without a license issued by the Chief of the Division of Reclamation.
3. Details the application requirement for a license.
4. Stipulates that no operator shall conduct a strip mining operation without a permit for such operation issued by the Chief of the Division of Reclamation.
5. Details the information required for a permit (a complete plan for mining and reclaiming the area of land to be affected is required, an estimate of the cost of reclamation, maps).
6. Stipulates that no permit will be approved to strip mine land adjacent to a public road.
7. Requires the operator to which a permit has been granted to conduct a strip mining operation to submit various reports.
8. Provides that any person claiming to be deprived of a right or protection afforded by law by an order of the Chief of the Division of Reclamation may appeal to the Reclamation Board of Review for an order vacating or modifying the order of the Chief. In addition, any party to an appeal before the board may appeal the order of the board to the court.
9. Stipulates that within three months after removal of overburden, the operator shall commence backfilling, grading, resoiling, and other work, except planting on the area of land affected by such removal. Such work shall be completed within 12 months after the end of the permit year within which the area of land was affected, or within 12 months after the operation is terminated, completed or abandoned, whichever comes first. The Chief may extend this period.

10. Details procedures to be followed while mining and reclaiming:
 - a. Conspicuously post at each entrance to the operation a sign which clearly shows the name, business address, and telephone number of the operator and the license number of the operation. The sign shall be at least 3 feet by 3 feet in size;
 - b. Remove the topsoil from the land in a separate layer and segregate the topsoil in a separate pile until needed so that the soil is kept in a usable condition for sustaining vegetation, unless other soil placement procedures or soil conditioning, as may be necessary to better establish and maintain vegetation in the area of land affected, have been approved by the Chief;
 - c. Cover immediately with nontoxic material any toxic material, roof coal, pyritic shale, or other material determined by the Chief to be acid-producing, toxic, or creating a fire hazard, and bury such toxic material under adequate fill. Before completion of reclamation the operator shall remove or bury any metal, lumber, equipment, or other refuse resulting from the mining, and dismantle and remove all abandoned or useless structures.
 - d. Construct and maintain access roads and fire lanes in the affected area, when required to do so by rule, order of the Chief, or the plan for mining and reclamation required as part of the application;
 - e. Prevent pollution of waters of the State, substantial erosion, substantial deposition of sediment, landslides, accumulation or discharge of acid water, and flooding, and maintain ditches, dikes, pumps and other drainage facilities necessary to prevent acid water from draining into or accumulating in the pit.
11. Details practices to be followed in reclaiming land.
12. Stipulates that when the reclamation other than planting of the area of land affected as shown on an annual or final map is completed, the operator shall file a request on a form provided by the Chief, for inspection of the area.
13. States that the Chief or designated inspection officer shall make an inspection and evaluation of the reclamation of the area within the prescribed period after receipt of the request or, if the operator fails to complete the reclamation or file the request as required, as soon as the Chief learns of such default. Thereupon, if the Chief approves the reclamation other than planting as meeting the requirements of Chapter 1513.

14. Establishes the strip mining reclamation fund. Disbursements from such fund shall be made by the Chief of the Division of Reclamation only for the purpose of reclaiming areas of land affected by strip mining on which an operator has defaulted.
15. Establishes the strip mining administration and reclamation reserve fund.
16. Authorizes the Chief of the Division of Reclamation, with the approval of the Director of Natural Resources, to purchase or acquire by gift, donation or contribution any eroded land, including land affected by strip mining, for which no cash is held in the strip mining reclamation fund. All lands purchased or acquired shall be deeded to the State, but no deed shall be accepted or the purchase price paid until the title has been approved by the Attorney General.
17. Establishes a board on unreclaimed strip mined lands.

Administrative Responsibilities:

The Chief of the Division of Mine Reclamation is responsible for adopting, implementing and enforcing rules with regard to the Strip Mining Act. The Chief is also charged with designating certain employee inspection officers to enforce the law. The Reclamation Board of Review is responsible for conducting hearings on appeals of the actions of the Division of Reclamation.

POLITICAL JURISDICTION: Ohio

Title or Reference: Surface Mining and Reclamation of Mined Land, Surface Mine Rules - Chapter 1514

Implementing Agency: Department of Natural Resources, Reclamation Board of Review

Affected Land Use Activities: Mining

Purpose:

To regulate surface mining and reclamation activities.

Provisions:

1. Prohibits any operator from engaging in surface mining or conducting a surface mine operation without a permit issued by the Chief of the Division of Reclamation.
2. Details the information required in the application for a permit (i.e., a complete plan for mining and reclamation of the area affected).
3. Requires the operator to obtain a certificate of public liability insurance covering all surface mining operations.
4. Stipulates that no permit be approved to surface mine land adjacent to a public road.
5. Stipulates that no permit application be approved to engage in surface mining on land that is closer than 50 feet of horizontal distance to any adjacent land or waters in which the operator making application does not own the surface or mineral rights, unless the owners of the surface and mineral rights in and under the adjacent land or waters consent in writing to surface mining closer than 50 feet of horizontal distance.
6. Authorizes the Chief of the Division of Reclamation or a designated agent to enter upon the premises of an operator for inspection purposes.
7. Allows a plan of mining and reclamation to be amended.
8. Requires an operator to file an annual report to the Chief of the Division of Reclamation stating the amount of, and identifying the types of minerals and coal, if any, produced, and stating the number of acres affected and the number of acres to be affected during the next year of operation.

9. States that the operator must request inspection of the area of land for which he is responsible for reclamation. Upon inspection by the Chief, if the area meets the established requirements, the operator will be released from the liability for one-half the total amount of his surety bond or deposit.
10. Establishes the surface mining reclamation fund. Disbursements from the funds shall be made for the purpose of reclaiming areas of land affected by surface mining operations on which an operator has defaulted.
11. Calls upon the Chief of the Division of Reclamation to enforce the provisions of the law.
12. Authorizes the Chief of the Division of Reclamation with the power to adopt, amend or rescind rules with regard to prescribing procedures for submitting applications for permits and amendments to permits, amendments to plans of mining and reclamation, filing annual reports and final reports, requesting inspection and approval of reclamation, paying permit and filing fees, and filing and obtaining the release of bonds, cash, and certificates of deposit deposited with the State.
13. Establishes a reclamation board of review to consider any appeal pertaining to the surface mining law.

Surface Mine Rules

14. Details the schedule for filing applications for surface mining permits.
15. Details the information necessary to complete an application with regard to maps (color code and symbols), survey of acreage, certificates of public liability insurance, performance bond.
16. Requires public notices of hearings to adopt, amend or rescind rules.
17. Discusses conversion from a surface mining permit to a strip mining license.
18. Discusses resoiling, highwalls, underground water supplies; minimizing acid drainage and acid water accumulation, final slopes revegetation, abandonment and completion dates.

Administrative Responsibilities:

The Chief of the Division of Reclamation, Department of Natural Resources, is responsible for promulgating any rules and regulations necessary to administer the law, issue permits, inspect areas, and enforce all provisions of the law.

The Chief of the Division delegates his authority to inspection officers to enforce the strip and surface mining laws.

The Reclamation Board of Review is responsible for hearing the appeal of any person claiming to be deprived of a right or protection afforded him by law with regard to surface mining.

10. Establishes the surface mining reclamation fund. Disbursement from the fund shall be made for the purpose of reclamation work on lands affected by surface mining operations on which an operator has defaulted.
 11. Calls upon the Chief of the Division of Reclamation to enforce the provisions of the law.
 12. Authorizes the Chief of the Division of Reclamation with the power to negotiate agreements with respect to strip mining operations and amendments to plans of mining and reclamation, filing annual reports and final reports, requesting inspection and approval of reclamation plans, and releasing bonds, and releasing bonds to the States.
 13. Establishes a committee to study and report on the conditions pertaining to the surface mining laws and the enforcement thereof.
 14. Details the schedule for filing applications for surface mining permits.
 15. Details the procedure for the issuance of permits for strip mining operations and the enforcement thereof.
 16. Requires public notice of hearings to be held on applications for strip mining permits.
 17. Requires the submission of a surface mining permit to a strip mining board of review.
 18. Enforces regulations, including the enforcement of laws relating to acid drainage and acid water accumulation, final slope revegetation, and other matters.
- The Chief of the Division of Reclamation, Department of the Interior, is responsible for promulgating any rules and regulations necessary to enforce the law, issue permits, inspect areas, and enforce all provisions of the law.

POLITICAL JURISDICTION: Ohio

Title or Reference: Ohio Soil and Water Conservation District Law,
Sections 1515.01-30, Section 1501.201

Implementing Agency: Department of Natural Resources, Division of Soil
and Water Districts, Soil and Water Conservation
Commission, Soil and Water Conservation Districts.

Affected Land Use Activities: Urban, agriculture

Purpose:

To establish the duties and responsibilities of the Soil and Water Conserva-
tion Commission, the Supervisors of the Soil and Water Conservation Dis-
tricts, and the Division of Soil and Water Districts, DNR.

Provisions

Sections 1515.01 through 1515.30

1. Establishes Ohio Soil and Water Conservation Commission within the Department of Natural Resources
2. States that any 75 owners of land situated within the limits of the territory proposed to be organized into a Soil and Water Conservation District may file a petition with the Ohio Soil and Water Conservation Commission asking that a district be organized to function in the territory described in the petition.
3. States that a Soil and Water Conservation District should be governed by five supervisors.
4. Provides the supervisors of a Soil and Water Conservation District with the power to:
 - a. Conduct surveys, investigations, and research relating to the character of soil erosion, floodwater and sediment damages, and the preventive and control measures and works of improvement for flood prevention and the conservation, development, utilization, and disposal of water needed within the District, and to publish the results of such surveys, investigations, or research, provided that no district shall initiate any research program except in cooperation or after consultation with the Ohio agricultural research and development center;
 - b. Develop plans for the conservation of soil resources and for the control and prevention of soil erosion and works of improvement for flood prevention and the conservation, development, utilization, and disposal of water within the district, and to publish such plans and information;

- c. Implement, construct, repair, maintain and operate preventive and control measures and other works of improvement for natural resource conservation and development and flood prevention, and the conservation, development, utilization and disposal of water within the district on lands owned or controlled by this State or any of its agencies and on any other lands within the District, which works may include any facilities authorized under State or federal programs, and to acquire, by purchase or gift, or to hold, encumber, or dispose of, real and personal property or interests therein for such purposes;
- d. Cooperate with or enter into agreements with any occupier of lands within the district in the carrying on of natural resource conservation operations and works of improvement for flood prevention and the conservation, development, utilization, and management of natural resources within the District, subject to such conditions as the supervisors deem necessary;
- e. Accept donations, gifts, grants and contributions in money, service, materials, or otherwise, and to use or expend them according to their terms;
- f. Make, amend, and repeal rules to carry into effect its purposes and powers;
- g. Sue and plead in its own name and be sued and impleaded in its own name with respect to its contracts or torts of its officers, employees or agents acting within the scope of their employment, or to enforce its obligations and covenants made under Chapter 1515 of the Revised Code;
- h. Make and enter into all contracts and agreements and execute all instruments necessary or incidental to the performance of its duties and the execution of its powers;
- i. Make agreements with the Department of Natural Resources giving it control over lands of the District for the purpose of construction of improvements by the Department;
- j. Charge, alter and collect rentals and other charges for the use or services of any works of the District;
- k. Enter, either in person or by designated representatives, upon lands, private or public, in the necessary discharge of their duties;
- l. Enter into agreements or contracts with the Ohio Department of Natural Resources for the determination, implementation, inspection, and funding of agriculture pollution abatement and urban sediment pollution abatement measures whereby landowners, operators, managers and developers may meet adopted State standards for a quality environment;

- m. Do all acts necessary or proper to carry out the powers granted in Chapter 1515 of the Revised Code.
- 5. Requires that the supervisors of a Soil Conservation District or a Soil and Water Conservation District annually submit to the Division of Soil and Water Districts a work plan and any additions thereto for projects it plans to commence or undertake during the ensuing year authorized by division.
- 6. Allows the Board of County Commissioners of each county in which there is a Soil Conservation District or a Soil and Water Conservation District to levy a tax within the ten-mill limitation and may appropriate money from the proceeds of such levy or from the general fund of the county, which money shall be held in a special fund for the credit of the District.
- 7. Allows the supervisors of any two or more adjoining Soil and Water Conservation Districts to, with approval of the Ohio Soil and Water Conservation Commission, form a joint board of supervisors for the purpose of construction, maintenance, and operation of a work of improvement located or to be located in such districts.
- 8. Provides that the Board of County Commissioners, or if a joint board of county commissioners has been created under Section 1515.22 of the Revised Code, the joint board, shall maintain the works of improvement constructed by the board for a Soil and Water Conservation District, and may contract with or authorize the supervisors or joint board of supervisors of a Soil and Water Conservation District to perform maintenance of such works of improvement.
- 9. Authorizes the Division of Soil and Water Districts, subject to the approval of the Director of Natural Resources, to:
 - a. Provide administrative leadership to local Soil and Water Conservation Districts in planning, budgeting, staffing, and administering District programs and the training of District supervisors and personnel in their duties, responsibilities, and authorities as prescribed in Chapter 1515 of the Revised Code;
 - b. Administer Chapter 1515 of the Revised Code pertaining to State responsibilities and provide staff assistance to the Ohio Soil and Water Conservation Commission in exercising its statutory responsibilities;
 - c. Assist in expediting State responsibilities for watershed development and other natural resource conservation works of improvement;
 - d. Coordinate the development and implementation of cooperative programs and working agreements between local Soil and Water Conservation Districts and divisions or sections of the Department of Natural Resources, or other agencies of local, State and federal government;

- e. Recommend methods and management practices to meet air and water quality standards relating to agricultural pollutants and sediment pollutants resulting from residential, industrial and other urban developments causing a moving or reshaping of the land surface:
- (1) When developing methods and management practices for meeting air and water quality standards relating to agricultural pollutants the Division shall name, with the approval of the director, an advisory board of not less than seven nor more than eleven members representing agricultural agencies, industry, and organizations of which not less than two shall be Soil and Water Conservation District supervisors, to make recommendations to the Division,
 - (2) When developing methods and management practices for meeting air and water quality standards relating to urban sediment pollution abatement, the Division shall name, with the approval of the director, an advisory board of not less than seven nor more than eleven members representing planning commissions, zoning boards, municipal government, private developers, Soil and Water Conservation Districts, and appropriate agencies of government, to make recommendations to the Division;
- f. Employ, subject to the approval of the Director of Natural Resources, field assistants and such other employees as are necessary for the performance of the work prescribed by Chapter 1515 of the Revised Code, for performance of work of said Division, and as agreed to under working agreements or contractual arrangements with local Soil and Water Conservation Districts, prescribe their duties, and fix their compensation in accordance with such schedules as are provided by law for the compensation of State employees.

All employees of the Division, unless specifically exempted by law, shall be employed subject to the classified civil service laws in force at the time of employment;

- g. In connection with new or relocated projects involving highways, underground cables, pipelines, railroads and other improvements affecting the water management of the lands:
- (1) Provide engineering service as is mutually agreeable to the Ohio Soil and Water Conservation Commission and the Department of Natural Resources to aid in the design and installation of soil and water management facilities on rural lands adjacent to such projects,

- (2) Maintain close liaison between owners of such lands, local Soil and Water Conservation Districts, and authorities responsible for such projects,
- (3) Recommend plans for such projects in cooperation with the Department of Highways or with any other interested agency which is engaged in soil or water conservation projects in the State, in order to permit continuing agricultural use of lands adjacent to these projects,
- (4) Recommend measures to retard erosion and conserve soil and water through installation of water impoundment or water infiltration facilities,
- (5) Cooperate with other agencies and sub-divisions of the State to protect the agricultural status of rural lands adjacent to such projects.

Section 1501.201

10. Empowers the Ohio Soil and Water Conservation Commission to recommend to the Director of Natural Resources a procedure for coordination of a program of agricultural pollution abatement and urban sedimentary pollution control. Implementation of such a program shall be based on the standards for air and water quality determined by the Ohio air pollution control board and the Ohio water pollution control board.

Administrative Responsibilities

The Ohio Soil and Water Conservation Commission is responsible for determining distribution of funds under Section 1515.14 of the Revised Code, recommending to the Director of Natural Resources and other agencies the levels of appropriations to special funds established to assist Soil and Water Conservation Districts, and recommending the amount of federal funds to be requested and policies for the use of such funds in support of Soil and Water Conservation District programs; assisting in keeping the supervisors of Soil and Water Conservation Districts informed of their powers and duties, program opportunities, and the activities and experience of all other districts, and in facilitating the interchange of advice and experience and cooperation between such districts; seeing the cooperation and assistance of the federal government or any of its agencies, and of agencies of this State, in the work of such districts; issuing appropriate regulations governing the conduct of referendums or elections provided for in Chapter 1515 of the Revised Code, subject to Chapter 119 of the Revised Code; recommending to the Director of Natural Resources priorities for planning and construction of small watershed projects, and making recommendations to the Director of Natural Resources concerning coordination of programs as proposed and implemented in agreements with Soil and Water Conservation Districts; recommending to the Director of Natural Resources, the governor, and the general assembly programs and legislation with respect to the

operations of Soil and Water Conservation Districts which will encourage proper soil, water, and other natural resource management and promote the economic and social development of the State.

The Supervisors of the Soil and Water Conservation Districts are charged with the responsibility of conducting surveys and investigations with regard to the character of soil erosion, floodwater and sediment damages; developing conservation plans; implementing, constructing, and maintaining preventive and control measures; and entering into agreements with any occupiers of land to carry out conservation operations and works.

The Division of Soil and Water is responsible for providing administrative leadership to the local districts, assisting in administering district programs, and developing and coordinating new methods and management practices, for meeting air and water quality standards relating to urban sediment pollution abatement and agricultural pollution abatement.

POLITICAL JURISDICTION: Ohio

Title or Reference: Chapter 3709, Health Districts

Implementing Agency: City Health Department, General Health Department

Affected Land Use Activities: Solid, Liquid and Deepwell Disposal

Purpose:

To establish health districts.

Provisions:

1. Provides the authority to create health districts. Each city constitutes a health district known as a "city health district."
2. States that villages and townships in each county be combined into a health district known as "general health district."
3. Provides that there be a union of two or more contiguous general health districts, not to exceed five.

Administrative Responsibilities:

The Health Districts responsibilities were not described in the portion of Chapter 3709 available to us.

POLITICAL JURISDICTION: Ohio

Title or Reference: Chapter 3734, Solid Waste Disposal, Solid Waste Disposal Regulations (OAC 3745-27), Solid Waste Disposal Licenses Regulations (OAC 3745-37)

Implementing Agency: Ohio EPA, local board of health

Affected Land Use Activities: Solid Waste

Purpose:

To regulate the disposal of solid waste disposal sites and facilities.

Provisions:

Chapter 3734, Solid Waste Disposal

1. Empowers the Director of the Environmental Protection Agency to adopt all regulations having uniform application throughout the State, governing solid waste disposal sites and facilities, inspections and issuance of licenses.
2. Requires any person wishing to establish a solid waste disposal site or facility to first have the approval of the Agency. The Agency requires the person to submit a plan and specification of the project. The agency has the authority to deny the application.
3. Subjects open dumping and open burning to conditions prescribed in the regulations adopted by the public health council.
4. Empowers the board of health of each district to provide for the inspection, licensing and enforcement of sanitary standards for solid waste disposal sites and facilities.
5. Stipulates that no person shall own or operate a site or facility without a license issued by the local board of health.
6. Stipulates that before a license is initially issued and annually thereafter the board of health is required to inspect the site.
7. States that the Director of the Environmental Protection Agency is to make a survey annually of each health district's licensed solid waste disposal sites and facilities.
8. Authorizes the Board of Health of each district with the power to revoke, suspend or deny a license.

Solid Waste Disposal Regulations (OAC 3745-27)

9. States that solid wastes may only be disposed of by one of the following methods or a combination thereof: sanitary landfill, incineration, or composting.
10. Prohibits any person from open dumping.
11. Requires any person proposing to establish a new or substantially modify an existing solid waste disposal site or facility to submit plans to Ohio EPA.
12. Details the information to be included in the plan submitted to the Director of Ohio EPA.
13. Requires that all waste materials being delivered to the incinerator be placed into a charging pit as soon as possible.
14. States that the site for and method of incinerator residue disposal or use be approved by the Director to insure the method of disposal will not create water pollution, a nuisance, or a health hazard.
15. States that all facilities be operated in compliance with the law and terms and conditions of the permits.
16. Requires the operator to employ all reasonable measures to collect, properly contain, and dispose of scatter litter including the use of portable winds where necessary.
17. Prohibits any operator of a solid waste disposal facility from accepting sewage solids, semi-solids, or liquids unless detailed plans for disposal have been approved by the Director of Ohio EPA.
18. Stipulates that the operator should insure that all waste materials admitted to the site be spread and compacted properly.
19. Requires highly flammable waste material be deposited in a separate location sufficient distance from the working face to prevent fires.
20. Requires the operator to install a monitor well to determine the effect of the facility upon the quality of groundwater.
21. Requires the operator of each facility to send an operating report to the Ohio EPA, and the Health Commission for the facility and details the information it should include.
22. Describes circumstances under which a sanitary landfill may be closed and the procedures the operator must complete after closure.
23. Authorizes the Health Commission and Director of Ohio EPA to inspect the closed sanitary landfill.
24. States that site should be covered with additional material and re-seeded if cracking or erosion of cover material occurs.

Solid Waste Disposal Licenses Regulations (OAC 3745-37)

25. Stipulates that no person may operate a solid waste disposal facility without a license issued by a Board of Health of the Health District where the facility is located.
26. Details the procedure for and information required to apply for a license.
27. Details the criteria for issuing solid waste disposal license.
28. Requires the Director of Ohio EPA to survey annually each Health District licensing solid waste disposal facilities to determine if the facilities comply with the rules.
29. Requires the Board of Health to inspect each facility at least quarterly and each new facility bi-weekly during the first three months of operation.
30. Authorizes the Director to return the solid waste disposal licensing function to a Board of Health if he determines the Board capable.
31. Provides both the Board of Health and the Director of Ohio EPA with the power to suspend, revoke or modify a license.

Administrative Responsibilities:

The Director of Ohio EPA is responsible for promulgating all necessary rules and regulations with regard to solid waste disposal sites and facilities, inspection and issuance of permits. The Director is also responsible for making an annual survey of each health district licensing solid waste disposal sites and facilities. Boards of Health in each Health District are responsible for issuing operator and facility licenses, inspecting and enforcing the law.

POLITICAL JURISDICTION: Ohio

Title or Reference: Chapter 3745, Ohio EPA

Implementing Agency: Environmental Protection Agency

Affected Land Use Activities: Enabling Legislation -- all categories

Purpose:

To create the powers and duties of the Environmental Protection Agency.

Provisions:

1. Provides the Director of EPA with the authority to:
 - a. Provide such methods of administration, appoint such personnel, make such reports, and take such other action as may be necessary to comply with the requirements of the federal laws and regulations pertaining to air and water pollution control, public water supply, water resource planning, and waste disposal and treatment,
 - b. Procure by contract the temporary or intermittent services of experts of consultants or organizations thereof when such services are to be performed on a part-time or fee-for-service basis and do not involve the performance of administrative duties,
 - c. Enter into agreements for the utilization of the facilities and services of other departments, agencies, and institutions, public or private,
 - d. Establish advisory boards in accordance with Section 121.13 of the Revised Code,
 - e. Accept on behalf of the State and deposit with the treasurer of State any grant, gift, or contribution made for air or water resource planning, waste disposal or treatment, or related purposes, and expend the same for such purposes,
 - d. Make an annual report to the governor and the general assembly on activities and expenditures including recommendations for such additional legislation as he considers appropriate to carry out his duties or accomplish the purposes of this section.
2. Creates an environmental review board to hear appeal for an order vacating or modifying the action of the director of EPA or board of health to perform an act.

3. Requires the Review Board to adopt rules governing procedure to be followed in hearings.
4. Allows any party adversely affected by the environmental board of review to appeal to the Court of Appeals of Franklin County or in the court of appeals in the district where the violation occurs.
5. Requires the Director of EPA, before issuing, denying, modifying, revoking, or renewing any permit, license, or variance pursuant to Chapter 3704, 3734 or 6111 of the Revised Code, to issue a proposed action to the applicant that indicates the Director's intent with regard to the issuance, denial, modification, revocation or renewal of the permit, license, or variance.

Administrative Responsibilities:

The Director of Environmental Protection Agency is responsible for administering the laws and regulations pertaining to the prevention, control and abatement of air and water pollution, public water supply, comprehensive water resource management planning, and the disposal and treatment of solid wastes, sewage, industrial and other wastes.

The Director of Environmental Protection is also responsible for maintaining, and keeping available for public inspection, at his principal office, a current register of all applications filed for permits, leases, licenses, variances, certificates and approval of plans and specifications, under his jurisdiction, hearings pending, his final action thereon and the dates on which such filings, hearings and final actions occur.

POLITICAL JURISDICTION: Ohio

Title or Reference: Ohio Conservancy District Act, Chapter 6101

Implementing Agency: Conservancy Districts

Affected Land Use Activities: Liquid and Solid Waste, Construction
Site Runoff, Drainage, Lakeshore and River-
bank Erosion

Purpose:

To establish conservancy districts and their responsibilities and powers.

Provisions:

1. Provides that any area or areas situated in one or more counties may be organized as a conservancy district for one or more of the following purposes:
 - a. Preventing floods,
 - b. Regulating stream channels by changing, widening, and deepening the same,
 - c. Reclaiming or filing wet and overflowed lands,
 - d. Providing for irrigation where it may be needed,
 - e. Regulating the flow of streams and conserving the waters thereof,
 - f. Diverting or in whole or in part eliminating water-courses,
 - g. Providing a water supply for domestic, industrial, and public use,
 - h. Providing for the collection and disposal of sewage and other liquid wastes produced within the district,
 - i. Arresting erosion along the Ohio shoreline of Lake Erie.
2. Stipulates that proceedings for the establishment of a conservancy district may be initiated only by a filing of a petition in the Office of the Clerk of the Court of Common Pleas of one of the counties containing territory within the proposed district, which petition shall be signed by 500 freeholders, or by the majority of the freeholders, or by the owners of more than half of the property.
3. Authorizes the Board of Directors to manage the district.

4. Requires the Board of Directors to prepare a plan for such part or parts of the improvements for which the district was created.
5. Provides the Board of Directors of a Conservancy District with the right of eminent domain.
6. Authorizes the Board of Directors with the authority to make and enforce all rules and regulations it deems necessary:
 - a. To protect and preserve the works, improvements, and properties owned or controlled by the district, prescribe the manner of their use by public corporations and persons and preserve order within and adjacent thereto,
 - b. To prescribe the manner of building bridges, roads, or fences or other works in, into, along or across any channel, reservoir or other construction of the district,
 - c. To prescribe the manner in which ditches, sewers, pipelines, or other works shall be adjusted to or connected with the works of the district or any watercourse therein and the manner in which the watercourses of the district may be used for sewer outlets or for disposal of waste,
 - d. To prescribe the permissible uses of the water supply provided by the district and the manner of its distribution and to prevent the pollution or unnecessary waste of such water supply,
 - e. To prohibit or regulate the discharge into the sewers of the district of any liquid or solid wastes deemed detrimental to the works and improvements of the district.
7. Allows Board of Directors to amend or alter the official plan.
8. States that the monies of every conservancy district be administered through the following funds:
 - a. The improvement fund,
 - b. The bond retirement fund,
 - c. The maintenance funds.
9. Provides the conservancy district with the power to borrow money, issue notes and bonds, levy taxes, impose rates for sale of water.

10. Provides districts with the authority to annually tax the district for the purpose of collection and disposal of sewage and liquid waste.
11. Permits the union of two or more conservancy districts into a single district with the approval of a petition submitted to the court.
12. Provides the Board of Directors or employees designated by the Board with the power to police the works of the district.

Administrative Responsibilities:

The Board of Directors of a Conservancy District is responsible for cleaning out, straightening, widening, or changing the course of any ditch, sewer, river, watercourse, located in or out of the district; filling up any abandoned or altered ditch, drain, sewer, river in or out of said district; constructing, acquiring, operating, or maintaining ditches, sewers, canals, purification works, treatment and disposal works in and out of the district; forest lands owned by the district; install improvements on lands owned or controlled by the district; construct connections to the works of the district for the delivery of a water supply; construct or enlarge any bridge, roadway, or street, etc. The Board is also responsible for promulgating all necessary rules and regulations.

POLITICAL JURISDICTION: Ohio

Title or Reference: Chapter 6123, Solid Waste Projects

Implementing Agency: Ohio Water Development Authority

Affected Land Use Activities: Solid Waste

Purpose:

To provide for the efficient and proper methods of disposal, salvage and reuse of or recovery of resources from solid waste thereby eliminating or decreasing accident and health hazards and the adverse effect on land values.

Provisions:

1. Provides the Ohio Water Development Authority with the power to:
 - a. Adopt bylaws for the regulation of its affairs and the conduct of its business under Chapter 6123 of the Revised Code,
 - b. Sue and plead in its own name; be sued and impleaded in its own name with respect to its contracts or torts of its members, employees, or agents acting within the scope of their employment, or to enforce its obligations and covenants,
 - c. Make loans and grants to governmental agencies for the acquisition or construction of solid waste projects by any such governmental agency and adopt rules, regulations and procedures for making such loans and grants,
 - d. Acquire, construct, reconstruct, enlarge, improve, furnish, equip, maintain, repair, operate, lease or rent to, or contract for operation by, a person or governmental agency, solid waste projects, and establish rules and regulations for the use of such projects,
 - e. Make available the use or services of any solid waste project to one or more persons, one or more governmental agencies, or any combination thereof,
 - f. Issue solid waste revenue bonds and notes and solid waste revenue refunding bonds of the State, payable solely from revenues as provided in Section 6123.06 of the Revised Code, unless the bonds be refunded by refunding bonds, for the purpose of paying any part of the cost of one or more solid waste projects of parts thereof,

- g. Acquire by gift or purchase, hold, and dispose of real and personal property in the exercise of the powers of the authority and the performance of its duties under Chapter 6123 of the Revised Code,
- h. Acquire, in the name of the State, by purchase or otherwise, on such terms and in such manner as the authority determines proper, public or private lands, or parts thereof or rights therein, rights-of-way, property, rights, easements and interests as it finds necessary for carrying out Chapter 6123 of the Revised Code, and compensation shall be paid for public or private lands so taken,
- i. Make and enter into all contracts and agreements and execute all instruments necessary or incidental to the performance of its duties and the execution of its powers under Chapter 6123 of the Revised Code,
- j. Employ managers, superintendents, and other employees and retain or contract with consulting engineers, financial consultants, accounting experts, architects, attorneys, and such other consultants and independent contractors as are necessary in its judgement to carry out Chapter 6123 of the Revised Code, and fix the compensation thereof. All expenses thereof shall be payable solely from the proceeds of solid waste revenue bonds or notes issued under Chapter 6123 of the Revised Code, from revenues, or from funds appropriated for such purpose by the general assembly,
- k. Receive and accept from any federal agency, subject to the approval of the governor, grants for or in aid of the construction of any solid waste project or for research and development with respect to solid waste facilities, and receive and accept aid or contributions from any source of money, property, labor or other things of value, to be held, used, and applied only for the purposes for which such grants and contributions are made,
- l. Engage in research and development with respect to solid waste facilities,
- m. Purchase fire and extended coverage and liability insurance for any solid waste project and for the principal office and sub-offices of the authority, insurance protection the authority and its officers and employees against liability for damage to property or injury to or death of persons arising from its operations, and any other insurance the authority may agree to provide under any resolution authorizing its solid waste revenue bonds or in any trust agreement securing the same,
- n. Charge, alter and collect rentals and other charges for the use or services of any solid waste project as provided in Section 6123.13 of the Revised Code.

2. Provides that upon application by the Ohio Water Development Authority appropriations may be made available for surveys and studies of any proposed solid waste projects.
3. Provides the Ohio Water Development Authority with the power to issue revenue bonds and notes.
4. Authorizes the Ohio Water Development Authority with the power to charge, alter, and collect rentals or other charges for use of any solid waste project and contract.
5. Requires the authority to maintain and keep in good condition and repair each solid waste project.
6. Provides the authority with the right to acquire property by purchase or lease.
7. Provides the authority with the power to change the location of any public road, highway, railway or public facility in connection with the construction of a solid waste project.

Administrative Responsibilities:

The Ohio Water Development Authority is responsible for constructing, operating or leasing for operation solid waste projects, as well as rules and regulations to operate them. The authority is also charged with making loans and grants to governmental agencies to construct solid waste projects. In addition, the authority adopts all necessary rules and regulations.

POLITICAL JURISDICTION: Ohio
County Engineers

Title 6131 ORC

Implementing Agency: County ODNR Engineers

Affected Land Use Activities: Drainage, Lakeshore and Riverbank
Erosion, Stormwater Runoff

1. Authorizes counties to make improvement to ditches.
2. States that ditch improvements can only be initiated by property owners' petition and can only be constructed if the assessment of benefits is found to be greater than the costs.

Administrative Responsibility

County Engineers are responsible for implementing the law. The ODNR is responsible for reviewing drainage plans and specifications drawn up by the counties, however, the counties need not be bound by their ruling.

POLITICAL JURISDICTION: Ohio

Title or Reference: Home Rule Powers under Sections 2, 3 and 7, Article XVIII
Constitution

Implementing Agency: Municipalities

Affected Land Use Activities: All Categories

Purpose:

To establish municipal home rule powers.

Provisions:

Section 2, Article XVIII

1. Authorizes the passage of laws to provide for the incorporation and government of municipalities.
2. Authorizes additional laws or special plans of government when approved by a majority vote of the people.

Section 3, Article XVIII

3. Authorizes municipalities to exercise all powers of local self-government and adopt local police, sanitary and other similar regulations not in conflict with general laws.

Section 7, Article XVIII

4. Authorizes any municipality to adopt a charter. Under the charter a municipality is subject to or limited by Section 3 of this Article in that: (1) the powers dealt with must be "powers of local self-government," and (2) police powers exercised by or under the charter must not conflict with general laws. Powers of local self-government of charter municipalities are not subject to the variance concept applicable to non-charter municipalities, and the following powers of local self-government are not subject to control by the State:
 - a. Structure and organization - i.e., form government,
 - b. Procedures used by the municipal corporation,
 - c. Other substantive powers of local self-government.

Charter municipalities gain no additional police powers -- compared to non-charter municipalities -- due to the adoption of a charter. The people, through the charter, may impose additional restrictions on

the municipality's exercise of: (1) powers of local self government; (2) police powers; (c) other powers not covered in this chapter such as the powers of taxation and debt. See Chapter 12 of this text for a more detailed explanation of municipal charters and the powers derived from charters.

5. Limits the powers granted to municipalities under Sections 2, 3 and 7 of this Article by the power given to the General Assembly to restrict and regulate municipal tax and debt powers under Section 6 of Article XVIII, and Section 13 of Article XVIII of the Constitution. Section 2, Article XII limits property taxing powers of State and political subdivisions to 1% of true value without a vote of the people, but allows additional levies: (1) under laws providing for voted levies, or (2) when provided for by a municipal charter.
6. Does not provide municipalities with the authority to create courts or appoint judges. That power is vested in the General Assembly.

Administrative Responsibilities:

Municipalities are responsible for exercising all powers of local self-government and adopting any and all ordinances, not in conflict with the general laws, which will ensure the health, safety and welfare of the general public.

POLITICAL JURISDICTION: Ohio

Title or Reference: Proposed Legislation -- Agriculture, Pollution Abatement and Urban Sediment

Affected Land Use Activities: Erosion, Site Runoff

Purpose:

To control runoff and soil erosion through proper management techniques.

Provisions:

1. Provides the Board of County Commissioners with the authority to adopt or amend reasonable rules restricting, through required management practices, the rate of soil erosion or loss of soil or sediment on lands that are cleared, graded, or otherwise improved or prepared for the construction of non-farm buildings, structures, utilities, recreational areas, or other similar non-farm uses. Such rules may govern grading, terracing, planting, sodding, drainage, storm sewerage, detention, or other improvements for controlling the runoff of water, that will minimize the erosion of soil or sediment from such lands into the waters of the State and minimize damage resulting from improper water management. Such rules shall not apply to lands being used in a strip mine operation as defined in Section 1513.01 of the Revised Code or land being used in a surface mine operation as defined in Section 1514.01 of the Revised Code.
2. States that the rules may require persons to obtain permits and file sediment control and water management plans incident thereto, before clearing, grading, excavating, filling or otherwise wholly or partially disturbing five or more contiguous acres of land owned by one person or operated as one development unit for the construction of non-farm buildings, structures, utilities, recreational areas, or other similar non-farm uses. Areas of less than five contiguous acres shall not be exempt from compliance with other provisions of this section or rules adopted pursuant to this section.
3. Stipulates that rules or amendments may be adopted under this section only after public hearing at not fewer than two regular sessions of the Board.
4. Authorizes the Board to employ enforcement personnel, delegate enforcement duties to any other county officials or employees, and enter into agreements with one or more political subdivisions or county officials in any combination, in order to obtain services for the enforcement of the rules adopted under this section. In addition, the Board may, upon identification to the owner or person in charge, enter any land upon obtaining agreement with the owner, tenant, or manager thereof in order to determine whether there is compliance with the rules. If the Board or

its duly authorized representative is unable to obtain such an agreement, the Board or representative may apply for and any judge of a court of record may issue an appropriate inspection warrant as necessary to achieve the purposes of this chapter within its jurisdiction.

5. Defines "agricultural pollution" as a failure to use management or conservation practices in farming or silvi-cultural operations to abate wind or water erosion of the soil or to abate the degradation of the waters of the State by animal waste or soil sediment including substances attached thereto.
6. Defines "urban sediment pollution" as a failure to use management or conservation practices to abate wind or water erosion of the soil or to abate the degradation of the waters of the State by soil sediment in conjunction with land grading, excavating, filling, or other soil disturbing activities on land used or being developed for non-farm commercial, industrial, residential, or other non-farm purposes, except lands being used in a strip mine operation as defined in Section 1513.01 of the Revised Code and except lands being used in a surface mining operation as defined in Section 1514.01 of the Revised Code.
- 7a. Requires the Chief of the Division of Soil and Water Districts to establish a technically feasible and economically reasonable standard to achieve a level of management and conservation practices in farming or silvi-cultural operations which will abate wind or water erosion of the soil or abate the degradation of the waters of the State by animal waste or soil sediment including substances attached thereto, and establish criteria for determination of the acceptability of such management and conservation practices.
- 7b. Requires the Chief of the Division of Soil and Water Districts to establish a technically feasible and economically reasonable standard to achieve a level of management and conservation practices which will abate wind or water erosion of the soil or abate the degradation of the waters of the State by soil sediment in conjunction with land grading, excavating, filling, or other soil disturbing activities on land used or being developed for non-farm commercial, industrial, residential or other non-farm purposes, and establish criteria for determination of the acceptability of such management and conservation practices. Such standards and criteria shall not apply to lands being used in a strip mine operation as defined in Section 1513.01 of the Revised Code or to lands being used in a surface mining operation as defined in Section 1514.01 of the Revised Code.
8. Authorizes the Chief with the power to require an approved urban sediment pollution abatement plan prior to any grading, excavating, filling, or other whole or partial disturbance of five or more contiguous acres of land owned by one person or operated as one development unit and require implementation of such plan.

9. States that the Chief shall establish procedures for administration and enforcement of rules for agricultural pollution abatement and urban sediment pollution abatement and specify the pollution abatement practices eligible for State cost sharing and determine the conditions for eligibility, the construction standards and specifications, the maintenance requirements, and the limits of cost sharing for such practices.
10. States that the Chief shall not issue any orders relative to urban sediment pollution in a municipal corporation or county that is enforcing ordinances or rules for urban sediment pollution abatement that meet or exceed standards as adopted by rule pursuant to Section 1513.30 of the Revised Code.
11. Establishes the Agricultural Pollution Abatement Advisory Board.
12. Establishes the Urban Sediment Pollution Abatement Advisory Board.
13. Authorizes the Chief, subject to approval of the terms of the agreement by the Soil and Water Conservation Commission, to enter into cooperative agreements with the Board of Supervisors of any Soil and Water Conservation District in order to comply with rules and orders of the Chief pertaining to agricultural pollution abatement and urban sediment pollution abatement.
14. States that the Attorney General, upon written request of the Chief, shall bring an action for an injunction or damages, or both, against any person or political subdivision violating any order issued or rule adopted by the Division of Section 1515.30 of the Revised Code, or failing to implement any plan approved pursuant to Division (E)(3) of Section 1515.30 of the Revised Code.
15. Creates a Soil and Water Districts Board of Review to review any person(s) claiming to be deprived of a right or protection afforded by law by an order of the Chief of the Division of Soil and Water Districts.
16. Stipulates that whoever violates Division (A) of Section 1515.32 of the Revised Code is guilty of a minor misdemeanor. Each succeeding day of violation is a separate offense.
17. Stipulates that no person shall cause pollution or place or cause to be placed any sewage, industrial waste, or other wastes in a location where they cause pollution of any waters of the State, and any such action is hereby declared to be a public nuisance, except in such cases where the Director of Environmental Protection has issued a valid and unexpired permit, or renewal thereof, as provided in Sections 6111.01 to 6111.08 of the Revised Code, or an application for renewal is pending.
18. Stipulates that no person to whom a permit has been issued shall place or discharge, or cause to be placed or discharged, in any waters of the State any sewage, industrial waste, or other wastes in excess of the permissive discharges specified under such existing permit without first receiving a permit from the Director to do so. Agriculture is exempted.

19. Stipulates that no person who is discharging or causing the discharge of any sewage, industrial waste, or other wastes into the waters of the State shall continue or cause the continuance of such discharge, without first obtaining a permit therefor issued by the Director. The Director shall prescribe by regulation a reasonable filing period within which applications may be filed to obtain permits for existing discharges that have not been authorized by permit.
20. Stipulates that no municipal corporation, county, public institution, corporation, or officer or employee thereof, or other person shall provide or install a water supply or sewerage or purification or treatment works for water supply or sewage disposal, or make a change in any water supply, water works intake, water purification works, sewerage, or sewage treatment works until the plans therefor have been submitted to and approved by the Director of Environmental Protection. Sections 6111.44 to 6111.46 of the Revised Code apply to water supply, sewerage, and purification or treatment works for water or sewerage of a municipal corporation or part thereof, an unincorporated community, a county sewer district, or other land outside of a municipal corporation or any publicly or privately owned building or group of buildings or place, used for the assemblage, entertainment, recreation, education, correction, hospitalization, housing, or employment of persons, but do not apply to water supply, or sewerage, or purification or treatment works for water or sewerage installed or to be installed for the use of a private residence or dwelling, or to water supply for industrial purposes and not intended for human consumption or to animal waste treatment or disposal works and related management and conservation practices subject to rules adopted pursuant to Division (E)(1) of Section 1515.30 of the Revised Code and involving less than 1,000 animal units as animal units are defined in the United States Environmental Protection Agency Regulations. This exclusion does not apply to animal waste treatment works having a controlled direct discharge to waters of the State.
21. Authorizes the Director of EPA with the power to stipulate modification, conditions, and regulations as the public health and prevention of pollution may require.
22. Does not apply to lands being used in a strip mine operation.
23. Requires a performance bond to ensure sediment control work under permit or plan is completed.
24. Rules shall not apply inside limits of municipal corporations.

Administrative Responsibilities:

The Chief of the Division of Soil and Water Conservation Districts is responsible for coordinating the development and implementation of cooperative programs and working agreements between local Soil and Water Conservation Districts and Divisions or Sections of the Department of Natural Resources,

or other agencies of local, State and federal government, subject to the approval of the Director of Natural Resources and the Soil and Water Conservation Commission.

The Agricultural Pollution Abatement Technical Advisory Board and the Urban Sediment Pollution Abatement Technical Advisory Board both are responsible for advising Soil and Water Conservation Districts with regard to their respective areas. Field Assistants from the Division of Soil and Water Districts are responsible under contractual agreements with local Soil and Water Conservations Districts to:

- Provide engineering service as is mutually agreeable to the Ohio Soil and Water Conservation Commission and the Department of Natural Resources to aid in the design and installation of soil and water management facilities on rural lands adjacent to such projects;
- Maintain close liaison between owners of such lands, local Soil and Water Conservation Districts, and authorities responsible for such projects;
- Recommend plans for such projects in cooperation with the Department of Highways or with any other interested agency which is engaged in soil or water conservation projects in the State, in order to permit continuing agricultural use of lands adjacent to these projects;
- Recommend measures to retard erosion and conserve soil and water through installation of water impoundment or other water management facilities;
- Cooperate with other agencies and subdivisions of the State to protect the agricultural status of rural lands adjacent to such projects.

The Soil and Water Conservation Districts Board of Review considers any persons claims of deprivation of a right or protection afforded by law by an order of the Division Chief of Soil and Water Districts.

The DNR promulgates all necessary rules and regulations.

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THE STATE OF PENNSYLVANIA

PREPARED BY
ERIC SCHWEITZER
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IN SUBCONTRACT TO
GREAT LAKES BASIN COMMISSION
ANN ARBOR, MICHIGAN

To be used as a portion of the technical reports
of the International Reference Group on
GREAT LAKES POLLUTION FROM LAND USE ACTIVITIES
of the International Joint Commission --
Prepared in partial fulfillment of the
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Contract No. 68-01-1598
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ACKNOWLEDGEMENTS

This report was prepared by Linton & Company, Inc. under contract to the Great Lakes Basin Commission. Linton & Company would like to acknowledge the assistance of the following individuals in the preparation of the report:

- Mr. Walter A. Lyon, Department of Environmental Resources
- Mr. Ernest F. Giovannitti, Department of Environmental Resources
- Mr. Thomas B. Koons, Department of Environmental Resources
- Mr. D.R. Thompson, Department of Environmental Resources
- Mr. Donald Lazarchik, Department of Environmental Resources
- Mr. William C. Bucciarelli, Department of Environmental Resources
- Mr. Gary Gilada, Department of Environmental Resources

This study was carried out as part of the Task A activities of the Pollution From Land Use Activities Reference Group, an organization of the International Joint Commission, established under the Canada/United States Great Lakes Water Quality Agreement of 1972. The Technical Representative for the study was Eugene A. Jarecki, Great Lakes Basin Commission. Findings and conclusions are those of the authors Eric Schweitzer and Barbara Roth, Linton & Company and do not necessarily reflect the views of the Reference Group or its recommendations to the Commission.

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PART I

(8 - 1) PROBLEMS, CURRENT ACTIVITY, EVALUATION

INSTITUTIONAL AND LEGISLATIVE FRAMEWORK

3.1 GENERAL

This chapter presents the institutional structure and the legislative framework for non-point pollution control in the State of Pennsylvania. Section 3.2 identifies the institutions involved in non-point pollution control, and presents brief descriptions of the key institutions. Section 3.3 presents the legislative framework in matrix form, followed by a discussion of the magnitude of the problem, current controls, and evaluation of the controls and their implementation.

3.2 INSTITUTIONAL STRUCTURE

Pollution control responsibilities in Pennsylvania are shared among different State and Substate agencies. Table 1 presents these agencies for each level of government.

TABLE 1

AGENCIES WITH NON-POINT POLLUTION CONTROL RESPONSIBILITIES

STATE	SUBSTATE
Department of Environmental Resources	Cities
State Conservation Commission	Counties
Environmental Hearing Board	Boroughs
Environmental Quality Board	Township
Citizens Advisory Council	Parishes
Department of Agriculture	
Department of Transportation	

CHAPTERS 1 and 2

(Refer to Chapters 1 and 2, State of New York, pages 1 - 8)

CHAPTER 3

INSTITUTIONAL AND LEGISLATIVE FRAMEWORK

3.1 GENERAL

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Environmental Quality Board	Township
Citizens Advisory Council	Authorities
Department of Agriculture	
Department of Transportation	

3.2.1 The Department of Environmental Resources

The Department of Environmental Resources is responsible for overall coordination of the State's water quality program. The Chief Administrative officer of the Department is the Secretary. Specifically, this office supervises the administration of the entire Department in the central and regional offices. The Secretary serves as Chairman of the Environmental Quality Board and the State Conservation Commission and as a member of the Citizens Advisory Council.

The Department is divided into six offices:

- Office of Administration;
- Office of Enforcement and General Counsel;
- Office of Environmental Protection and Regulation;
- Office of Resources Management;
- Office of Planning and Research;
- Office of Deep Mine Safety.

Figure 1 presents an organization chart of the Department of Environmental Resources. This Figure details the responsibilities of the individual offices.

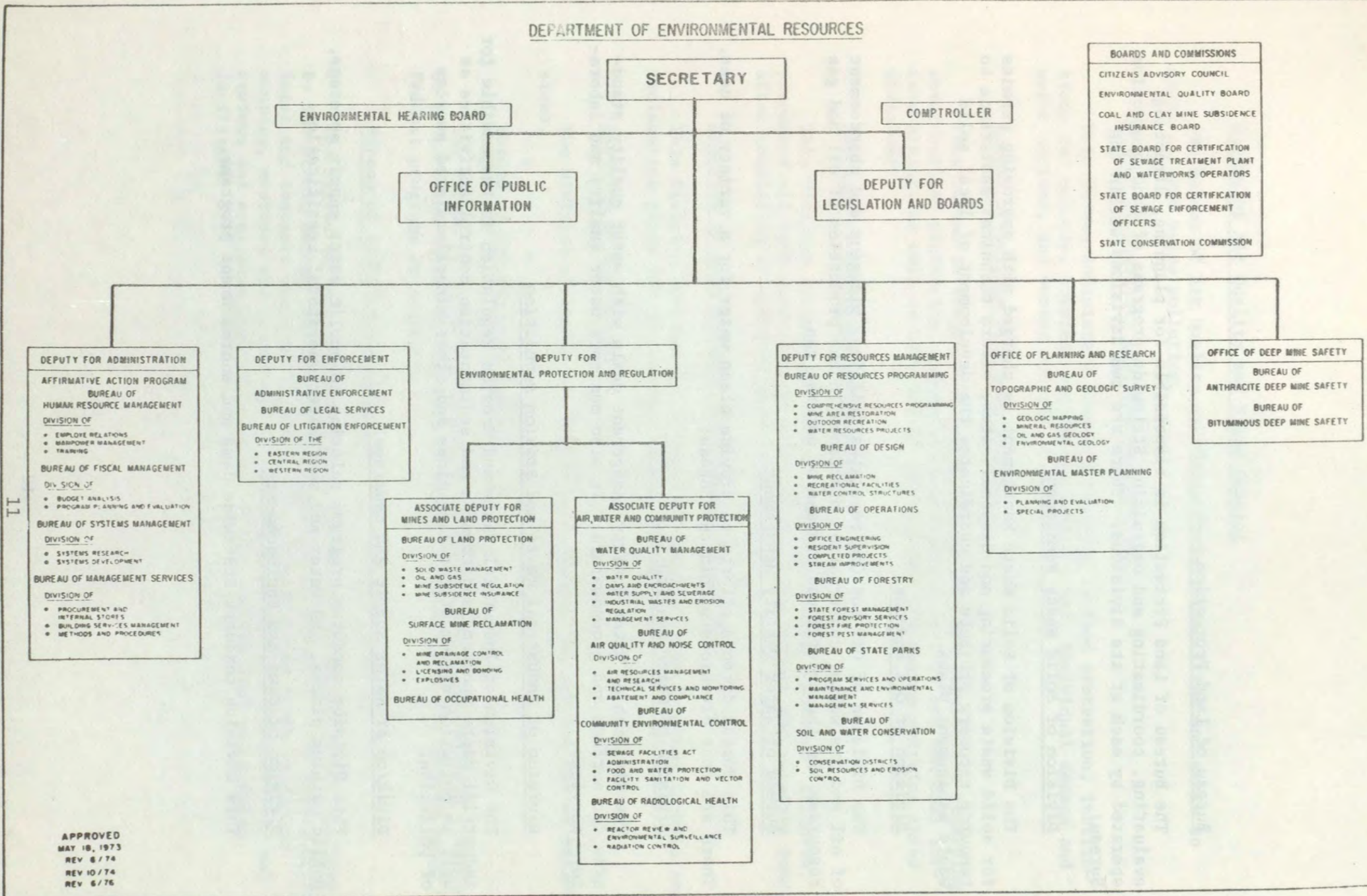
3.2.1.1 Office of Environmental Protection and Regulation

This Office is responsible for developing and carrying out programs to identify and correct environmental problems. The programs work toward coordinated total solutions to environmental problems and provide guidelines and assistance to local governments, private organizations and citizens to abate pollution.

Within the office there are seven bureaus, which are further broken down into divisions.

- Bureau of Land Protection;
- Bureau of Water Quality Management;
- Bureau of Air Quality and Noise Control;
- Bureau of Community Environmental Control;
- Bureau of Surface Mine Reclamation;
- Bureau of Radiological Health.

Figure 1



Bureau of Land Protection

The Bureau of Land Protection is responsible for planning, directing, evaluating, coordinating and organizing Statewide programs of land protection operated by each of its divisions. There are ~~two~~ divisions within the Bureau:

Division of Solid Waste Management

The Division of Solid Waste Management is charged with approving permits for solid waste processing and disposal sites, offers technical assistance to resource recovery projects and coordinates the development of local solid waste management plans.

Division of Oil and Gas

The Division of Oil and Gas regulates drilling, plugging and abandonment of oil and gas wells, conservation practices in the production of oil and gas resources and the underground storage of natural gas.

Bureau of Water Quality Management

This Bureau directs efforts to provide clean water for a variety of uses. There are four divisions within the Bureau:

Division of Water Quality

The Division of Water Quality Management deals with water quality standards for surface and groundwaters. It also monitors water quality and laboratory services.

Division of Industrial Waste and Erosion Regulation

The Division of Industrial Waste and Erosion Regulation is responsible for industrial waste programs and erosion and sedimentation control activities as well as pollution abatement for deep mines and other mineral-related sources of pollution.

Division of Water Supply and Sewerage

This Division conducts programs relating to public water supply sewerage, public bathing places, and water and wastewater operators' certification.

Division of Dams and Encroachments

This Division conducts Statewide dams and encroachment programs.

Bureau of Air Quality and Noise Control

The Bureau of Air Quality and Noise Control identifies and seeks to abate air and noise pollution.

Bureau of Community Environmental Control

This Bureau administers programs relating to food protection, institutions and schools, housing, recreational facilities, individual sewage and water systems, and vector control.

Bureau of Surface Mine Regulation

This Bureau is responsible for enforcing laws and regulations regarding environmental protection, conservation and safety in coal and non-coal surface mining, as well as safe use of explosives. The Bureau contains three divisions:

Division of Licensing and Bonding

This Division reviews and approves surface mining operators' licenses, processes all bond deposits, approves surface mine permits and releases bonds after completion of approved land reclamation.

Division of Mine Drainage Control and Reclamation

This Division reviews and recommends action on mine drainage permits and reclamation plans for all surface mining operations.

Division of Explosives

The Division of Explosives regulates handling, use and storage of explosives.

Bureau of Occupational Health

The Bureau of Occupational Health is charged with administering programs to protect the health and welfare of Pennsylvania workers not covered under Federal programs or standards.

Bureau of Radiological Health

The Bureau of Radiological Health carries out responsibilities assigned by the Atomic Energy Development and Radiation Control Act. The Bureau regulates and inspects users of ionizing radiation, licenses users of radium sources, monitors the environment to determine levels of radioactivity, and reviews and evaluates applications for nuclear reactors and other major facilities.

3.2.1.2 Office of Resources Management

This Office plans, directs and operates the Department's programs associated with management of the State's natural resources. This includes outdoor recreation, forestry, flood control, land and water conservation, mining area pollution abatement and restoration, water resources planning and development, and related engineering and operations activities.

This Office is divided into six Bureaus.

Bureau of Resources Programming

The Bureau of Resources Programming is responsible for long-range programming for multi-purpose water and other resource uses and controls, recreational facilities, programs for acid mine pollution abatement and mine area reclamation.

Bureau of Design

The Bureau of Design coordinates the design of projects constructed for the Department by the Department of General Services.

Bureau of Operations

The Bureau of Operations inspects the construction of dams, flood protection projects, recreational areas and State parks, both new and rehabilitative work and similar projects. The Bureau also inspects the construction of water pollution abatement and control structures, mine subsidence protection and restoration projects, and for elimination of mine and refuse bank fires.

It operates and maintains specific Department projects and periodically inspects Department-built projects. In addition, the Bureau constructs Department stream clearance and channel improvement projects, minor construction works as required and rents equipment.

Bureau of Forestry

This Bureau prepares and maintains a Forest Resource Management Plan for State Forest lands. It prevents, detects and extinguishes forest fires on all forest lands and manages the State Forest land. In managing the forest lands the Bureau tries to protect water resources and facilitate flood prevention and soil erosion control.

Bureau of State Parks

This Bureau administers and controls the overall operation, maintenance and protection of the State park system, providing recreational and interpretive activities year-round.

Bureau of Soil and Water Conservation

This Bureau is responsible for implementing the Soil Conservation Law, it also administers Small Watershed Projects, establishes priorities for watershed project installations, implements erosion and sedimentation control regulations, assists the State's 66 local soil conservation districts and the Environmental Advisory Councils. The State Conservation Commission provides technical and financial assistance to the districts.

3.2.1.3 The Office of Deep Mine Safety

The Office of Deep Mine Safety is responsible for enforcing anthracite and bituminous coal mining laws. This office also administers state health and safety regulations applicable to persons employed in underground mining operations.

3.2.1.4 The Office of Enforcement and General Counsel

This Office is the Department's legal agency. The Office represents program bureaus in court and before the Environmental Hearing Board and offers legal advice and services to the Department.

3. .1.5 The Office of Administration

The Office of Administration provides staff services to the Secretary and the Department program areas to maintain the orderly and efficient administration of the Department's activities.¹

3.2.2 State Conservation Commission

The State Conservation Commission is responsible for:

- Assisting local soil conservation districts by providing financial assistance to employ professional help;
- Providing financial assistance to local sponsors of P.L. 566 projects in land acquisition and setting priorities for watershed planning;
- Encouraging and supporting local soil conservation districts in all soil and water conservation efforts.²

3.2.3 Environmental Hearing Board

The Environmental Hearing Board was created as an independent body. The Board is responsible for holding hearings and issuing adjudications on any order, permit, license or decision of the Department. The Board is placed under the Department's administrative and budgetary function. Its three members, required by law to be attorneys, are appointed by the governor, with the advice and consent of the Senate.³

3.2.4 Environmental Quality Board

The Environmental Quality Board was established to develop an environmental plan for the State and promulgate rules and regulations for the Department of Environmental Resources.

Membership on the Board is comprised of the Secretaries of Environmental Resources, Transportation, Health, Commerce, Agriculture, Labor and Industry and Community Affairs, the Executive Directors of the Fish Commission, Game Commission, State Planning Board and Historical and Museum Commission, the Chairman of the Public Utility Commission, four members of the General Assembly and five members of the Citizens Advisory Council. More specifically, the Board's responsibilities are to:

- Formulate, adopt and promulgate regulations for the performance of the Department;
- Receive and review reports from the Department and Secretary on matters of policy;
- Establish rules and regulations for the control, management, protection, utilization, development, occupancy and use of lands and resources for State parks and forests.⁴

3.2.5 Citizens Advisory Council

The Citizens Advisory Council was organized to increase input into the decision-making processes of the Department of Environmental Resources and other governmental agencies. The Council consists of 19 members appointed by the Governor, the Speaker of the House of Representatives and the President Pro Tempore of the Senate, and the Secretary of Environmental Resources. The citizen members are unpaid volunteers and represent a broad spectrum of interest and background in the Commonwealth. Under the law the Council is charged with:

- Reviewing all environmental laws of the State and making appropriate suggestions for their revision, modification and codification;
- Reviewing the work of the Department and making recommendations for improvement;
- Making annual reports to the governor and General Assembly.⁵

3.2.6 Department of Agriculture

The Department of Agriculture was established in 1895. The Department is charged by numerous laws to encourage the development and successful pursuit of agriculture, to control animal and plant diseases and insect pests, and to safeguard the public against impure or misrepresented foods, also feeds, fertilizers, liming materials and pesticides, principally through the enforcement of essential legal measures.

The Department is administered by the Secretary of Agriculture, who is appointed by the governor. Its component bureaus are: Animal Industry, Administrative Services, Dog Law Enforcement, Foods and Chemistry, Markets, Plant Industry, Rural Affairs and Weights and Measures. The Secretary of Agriculture also has administrative supervision of the State Farm Products Show Commission and the State Harness Racing Commission and provides co-operation with the Pennsylvania Crop Reporting Services.⁶

The Bureau of Plant Industry is the part of the Department most relevant to control of pollution through land use activities since it is responsible for licensing dealers in pesticide products, establishing and enforcing all laws covering pesticides and fertilizers.

3.2.7 Department of Transportation

The Department of Transportation was created on May 6, 1970 by Act No. 120 to develop programs assuring adequate, safe and efficient transportation. More specifically, the responsibilities of the Department are to:

- Develop and maintain a continuing, comprehensive and coordinated transportation planning process;
- Develop programs designed to foster efficient and economic public transportation services in the State;
- Prepare plans for the preservation and improvement of the commuter railroad system;
- Develop plans for more efficient public transportation service by motor bus operation;
- Prepare and develop plans and programs for all modes of urban transportation, including in addition to commuter rail and motor bus, rapid rail, trolley coach, surface rail, corridor rail, and other innovative modes of urban transportation;
- Coordinate the transportation activities of the Department with those of other public agencies and authorities;
- Cooperate with interstate commissions and authorities, State departments, councils, boards, commissions, authorities and other State agencies, with political subdivisions of the Commonwealth, with appropriate Federal agencies, public agencies in other States, and with interested private individuals and organizations in the coordination of plans and policies for the development of ground, air and water commerce and facilities;
- Mark, build, rebuild, relocate, fix the width of, construct, repair, and maintain State designated highways and transportation facilities and rights of way;

- Have exclusive authority and jurisdiction over all State designated highways;
- Superintend, supervise and control the work of constructing, reconstructing, maintaining and repairing State designated highways, and other transportation facilities and rights of way;
- Enter into contracts for designing, constructing, repairing or maintaining State designated highways, and other transportation facilities and rights of way, airports or any parts thereof, as may now or hereafter be provided by law;
- Prepare and submit a program which it recommends to be undertaken by the Department of Transportation during the six fiscal years next ensuing;
- Consult with appropriate officials as designated by the chief administrative officer of the Department of Environmental Resources, the Department of Community Affairs, the Department of Health, State Planning Board and the Fish Commission regarding the environmental hazards and the conservation, sanitary, recreation and social consideration that may arise by reason of the location, design, construction or reconstruction of any transportation or air facility.

No highway, transit line, highway interchange, airport, or other transportation corridor or facility shall be built or expanded in such a way as to use any land from any recreation area, wildlife and/or waterfowl refuge, historic site, State forest land, State game land, wilderness areas or public park unless: (a) there is no feasible and prudent alternative to the use of such land, and (b) such corridor or facility is planned and constructed so as to minimize harm to such recreation area, wildlife and/or waterfowl refuge, historic site, State forest land, State game land, wilderness area, or public park.⁷

With regard to water quality, the Department is responsible for ensuring that all State and county roads which receive Federal funding comply with runoff and erosion specifications set by the Pennsylvania DOT.

3.2.8 Local Units of Government

At the local level, there are five types of general purpose units of government that have some form of authority to control non-point pollution. They are:

- Municipalities;
- Counties;
- Boroughs;
- Townships;
- Authorities.

A new local government article of the Pennsylvania Constitution, adopted in 1968, granted to all municipalities and counties the right and power to adopt home rule charters. This provision was implemented by Act 62 of 1972, the Home Rule Charter and Optional Plans Law. It sets forth the procedure for adoption of a home rule charter or optional plan of government and grants powers to municipalities adopting home rule charters or optional plans of government. The first elections held under the new act occurred in November 1972. Currently 66 communities across the State, including four counties, have Government Study Commissions in operation. They will recommend to the voters of their communities whether or not to adopt a home rule charter or an optional plan of government. Any change in the governmental form must be approved by the voters in referendum.⁸

The only community in the State currently operating under a home rule charter is the City of Philadelphia, whose charter was adopted in 1951. In addition, 17 cities have alternative forms of government, adopted under the authority of the Optional Third Class City Charter Law of 1957. Court decisions have allowed these cities a measure of home rule. Approximately 200 boroughs and townships have managers under code provisions which allow them to establish the office of manager by ordinance.

Act 62 provides a uniform procedure whereby all counties, cities, boroughs, and townships, for the first time, will be able to adopt home rule charters or optional plans of government.⁹

In addition to granting the right to adopt home rule charters and optional plans of government to all municipalities, the new local government article of the Constitution contains a number of other important provisions. The section providing for intergovernmental cooperation was implemented by Act 180 of 1972. For the first time, municipalities are permitted to transfer functions to other governments as well as to exercise powers jointly. The sections providing for area government were implemented by Act 39 of 1972, the Environmental Improvement Compact Act. Under this Act, any two or more municipalities may form a compact to exercise any municipal function. The Compact is governed by an elected Board and has the power to levy a tax of up to two mills. The Constitution also directs the General Assembly to enact uniform legislation for consolidation, merger, or boundary change of all municipalities. This section has yet to be implemented. The Constitution also changes the base for computing municipal debt limits from assessed valuation to total governmental revenues. This section was implemented by Act 185 of 1972, the local Government Unit Debt Act. The new Article also requires the reapportionment of all local governing bodies elected by district after every Federal decennial census. Special provisions relating to the City and County of Philadelphia were carried over from the previous Constitution.¹⁰

3.2.8.1 Municipalities

At the beginning of 1973 there were 52 cities in Pennsylvania. There are three classes of cities: first, second and third class. They have the option of adopting one of three forms of government: commission, mayor-council or city-manager plan. With the commission form of government, the

mayor and four members constitute the governing body of the City. The mayor acts as president. Each member is in charge of one of the five major departments: Public Affairs (always headed by the mayor), Accounts and Finance, Public Safety, Streets and Public Improvements, and Parks and Public Property. These officials, along with the controller and treasurer, are elected at large by the voters for terms of four years, the councilmanic terms overlapping. The council appoints all the other officers and employees, notably the city clerk, the city engineer, and the city solicitor, who also have 4-year terms.¹¹

The mayor-council plan includes a council of five, seven or nine members, elected at large for overlapping 4-year terms. A mayor, treasurer, and a controller are also elected for 4-year terms. The council may create, reorganize or abolish departments which may not be more than nine in number, including a department of administration headed by a business administrator under the direction of the mayor. The department heads appoint subordinates with the consent of the mayor.¹²

Under the council-manager plan, all authority is lodged with the council which is composed of five, seven or nine members elected at large for 4-year overlapping terms. The council elects one of its members as mayor who presides over the meetings of council but who has no veto power. The voters also elect the city treasurer and controller. The council appoints a city clerk and a city manager. The manager is the chief administrative officer of the city.

Philadelphia, Pennsylvania's largest city, has a modern home rule, strong-mayor charter. The cities of Pittsburgh and Scranton, second class and second class A cities respectively, also have strong-mayor forms of government.¹³

Cities (municipalities), like other units of local government, have the power to levy taxes, borrow money, authorize expenditures, and direct the administration of their governments which is carried on by their appointees. The scope of their functions and responsibilities is broad. Municipalities that adopt home rule charters may exercise any power or perform any function not denied by either the Constitution, their home rule charter or the General Assembly. Municipalities that have not adopted home rule are limited to powers and functions specifically authorized by the General Assembly in the municipal codes and other general legislation.¹⁴

In general, it may be said that cities have a wider range of specifically enumerated powers than boroughs or townships; however, many of these powers may also be exercised by boroughs and townships under general or specific grants of power. The availability of home rule for all classes of municipality affords each local unit with the means by which it can obtain any power it deems necessary.¹⁵

3.2.8.2 Counties

There are 67 counties in Pennsylvania including the consolidated City and County of Philadelphia, and each inhabitant of the State lives in and comes under the jurisdiction of one of them. The largest in population is Philadelphia with almost 2,000,000 people; the smallest is Forest with less than 5,000, but all of them (except Philadelphia) have the same basic organization and powers.

The traditional form of county government may be described as a "no-executive" type. This form is currently in use in all 66 county governments. Under the terms of Act 62, counties can adopt home rule charters or optional plans of government. With the possibility of home rule now open to counties, many areas are examining other governmental forms. Four counties elected Government Study Commissions under the terms of Act 62 in the fall of 1972; the possibility of reorganization is being considered in a number of other counties. Until such time as a new form is adopted by the voters of the county, the traditional form remains in effect.¹⁶

The only governmental entity is the board of county commissioners, elected by the voters for 4 years. Its major functions include the administration of elections, the assessment of property for local tax purposes, the construction and maintenance of county buildings and other public facilities, and the local administration of welfare.

Legislation enacted in recent years has strengthened to some extent the policy-making role of boards of county commissioners, thus granting them greater control of responsibility for county government. County commissioners may adopt land subdivision and zoning regulations, establish county health services, and undertake urban redevelopment programs, to cite just a few areas of service now open to county government. With rapidly increasing urban population growth since World War II, it is evident that county government offers great potential in meeting mounting local service needs that transcend municipal boundaries. County home rule charters will provide a method both for reorganizing and modernizing county government and for re-allocating governmental functions at an areawide level.¹⁷

3.2.8.3 Boroughs

During the 19th and early 20th centuries, borough governments governed all incorporated municipalities within the State. Most present cities were first boroughs and became cities as their population increased. Today there are 960 boroughs in the State, 46 have a population of more than 10,000, and 391 have less than 1,000 inhabitants. There are approximately 2,800,000 people in these boroughs.

The governing body of the borough is an elected council and mayor. They are assisted by other officials such as the solicitor, engineer, manager, secretary, tax assessor, tax collector, treasurer, auditors, or controller,

constables, chief of police, fire chief, health officer, the planning board, zoning commission, and other personnel, depending upon the size of the borough and its activities. The powers of the council are broad and extensive covering virtually the whole range of urban municipal functions. Their decisions are framed in the form of ordinances and resolutions. To be effective, these must be passed by the majority of members voting and signed by the mayor. If he vetoes an action of council, an extra majority can override it.¹⁸

In more than 100 Pennsylvania boroughs, the chief administrative officer is a borough manager appointed by council. He is responsible for carrying out the policies and enforcing the ordinances of council, thus relieving the members of council from much of the routine and day-by-day administration. The manager usually a trained and experienced administrator, is given authority to manage the affairs of the borough, subject to the will of the council. Where there is no manager, the members of council working in committees undertake the direction of the affairs of the borough. Under the terms of Act 62 boroughs can adopt home rule charters or optional plans of government. A number of boroughs currently have Government Study Commissions in operation.¹⁹

3.2.8.4 Townships

There are two classes of townships in Pennsylvania. The first class, numbering 92, includes the more urban townships located on the periphery of larger cities and boroughs; the second class townships number 1,460 and are mainly rural. In townships of the first class, the governing body is made up of elected commissioners, five when the township is not divided into wards or has less than five wards, and one for each ward where there are more than five (with a maximum of 15 wards, thus 15 commissioners). The commissioners have 4-year overlapping terms. The governing body of second class townships is composed of three or five supervisors elected at large for 6-year terms.²⁰

Other township officials of both classes include the tax assessor, tax collector, the constable, three auditors or controller, and a treasurer, all of whom are elected (except assessors in the larger counties and treasurers in second class townships). Appointive officers include also the secretary, township manager, chief of police, fire chief, engineer, solicitor and others as the activities and the population of each township warrant.

To become a township of the first class, a second class township must have a population density of at least 300 persons per square mile, but it may remain a second class unit if it so wishes. Parts of second class townships may be annexed to cities and boroughs upon the affirmative vote of the residents of the territory to be annexed, but in first class townships, this requires a vote of the electorate of the whole township. For this reason, a number of second class townships have elected in the past to become townships of the first class. Upon passage of uniform boundary change legislation by the General Assembly, all classifications will be treated alike. With home rule, townships may not alter their form of government to suit local needs.²¹

3.2.8.5 Authorities

The authority is a special kind of local unit. It is a body politic and corporate established under law for the purpose of acquiring, constructing, maintaining, and operating all kinds of public facilities such as buildings, including school buildings, transportation facilities, marketing and shopping facilities, highways, parkways, airports, parking places, waterworks, sewage treatment plants, playgrounds, hospitals and industrial development projects. It is initially financed by means of borrowing money in the form of a bond issue. These projects must be devoted wholly or partially to public uses. Costs including construction, acquisition, maintenance and/or operation must be met from bond proceeds or revenues earned by the projects such as water rates, sewer rentals, and other sales of services, but not from taxes.²²

An authority is established by ordinance by one or more municipalities or local units. The governing bodies of the parent local unit or units appoint the members of the authority's board. If incorporated by one unit, the board has five members; if made up by two or more local units, there shall be at least one from each unit but no less than five. The board carries on the work of the authority, acquires property, appoints officers and employees, undertakes projects, makes regulations, and charges and collects revenues from the services of the facilities or projects.²³

Authorities in Pennsylvania were first established in 1933. The main reason was the restrictive provisions for incurring debt imposed by the Constitution of Pennsylvania. Local units acting through authorities can escape such limitations. The new local government article of the Constitution changed the base on which debt limits are to be calculated from assessed valuation to total municipal revenues. The liberalization of debt limits should reduce the need for creation of authorities. However, the authority is valuable in that it allows joint operations of facilities and projects by two or more units, and thus makes possible larger operations than could be undertaken by one of its members.²⁴

The growth in the number of authorities in Pennsylvania has been impressive. As of 1973, there were 2,078 authorities -- 833 school, 242 water, 502 sewer, 243 multi-purpose, 33 airport, and 124 miscellaneous. These authorities have started or are operating nearly 2,000 projects which have been initially financed by bond issues totalling over three billion dollars.²⁵

3.3. LEGISLATIVE FRAMEWORK

The legislative framework for Pennsylvania, as implemented by the institutional structure previously presented, is developed in a body of law relating to water quality. In addition to describing the laws, it is also important to identify the degree and effectiveness of their implementation.

The legislative framework is presented in summary form on Table II, Summary of Legislative Framework, with a summary of the evaluation of current activity being presented in Table III, Summary of Analysis. The following subsections of this discussion present in more detail the legislative framework and the evaluation as summarized in the two tables. Each table is accompanied by a page of notes identifying different symbols that are used on the table and any specific clarifying comments necessary in the presentation of the table.

3.3.1 Urban Areas

3.3.1.1 Site Construction Runoff

Magnitude of the Problem

New construction sites in urban areas can exert a non-point source loading of sediments up to 50 times greater per unit area than is evident in agricultural operations. Construction is an extensive land disturbing activity and places urban lands under unstable conditions, resulting in a high loss of topsoil. Research indicates that the problem of site runoff is considered serious.²⁶

Current Activity

The Clean Streams Law provides DER with the authority to control construction site runoff. The law declares as State policy that clean and unpolluted streams are essential to Pennsylvania. It is the objective of the Act not only to prevent further pollution, but also to reclaim any streams that are now polluted. The Act states that prevention and elimination of water pollution is directly related to the economic future of Pennsylvania.²⁷

The Act places some responsibilities on landowners. It provides that wherever there is pollution or danger of pollution resulting from a condition which exists on a parcel of land, the landowner or occupier must correct the condition. If the landowner fails to correct this, the DER can order him to do so or correct the condition itself and recover the expenses from the landowner.²⁸

The law allows the DER to initiate programs for the control of potential pollution. If any activity is not regulated by any other provision of the Clean Streams Law, and the DER finds the activity has a potential for causing pollution, it can require permits, establish conditions under which the activity shall be conducted, or issue orders requiring the person undertaking the activity to eliminate the potential for pollution. The law applies to all Pennsylvania individuals as well as corporations. There are penalties for violating this law.²⁹

The Pennsylvania Environmental Quality Board adopted regulations for the control of erosion and sedimentation (Chapter 102 - Department of Environmental Resources Rules and Regulations). The DER developed a program to implement these regulations. In general the regulations requiring that every earth-moving activity develop, implement and maintain a plan for control

SUMMARY OF LEGISLATION

PENNSYLVANIA

TABLE II

CHAPTER	LAND USE CATEGORY									Regulations	IMPLEMENTING RESPONSIBILITY				TYPE OF CONTROL						COMMENTS/IMPLEMENTING AGENCY
	Urban	Agriculture	Liquid/Solid Waste	Transportation	Shoreline Landfill	Extractive Operations	Recreation	Lakes & Riverbanks	Forest		State	County	Municipality	Special District	Direct (PC)	Planning (P)	Indirect (OS)	Non-Statutory (NS)	Management (MP)	Fiscal (F)	
Sewage Facilities Act No. 537			X							Yes	X		X		X	X			X	Department of Environmental Resources	
Water Obstruction Act No. 335, P.L. 555 as amended					X		X			NA	X					X				Department of Environmental Resources	
Solid Waste Management Act, No. 241			X							Yes	X	X	X	X	X				X	Department of Environmental Resources	
Land and Water Conservation Act, No. 433 P.L. 996						X				NA	X								X	Department of Environmental Resources	
Pesticide Control Act of 1973		X								Yes	X				X					Department of Agriculture	
Municipal Authorities Act of 1945, No. 164, P.L. 382	X	X	X	X	X	X	X	X	X	NA		X		X	X					Municipalities	
Clean Streams Law, Act No. 394 as amended by Act 222	X	X	X	X	X	X	X	X	X	Yes	X			X						Department of Environmental Resources	
Surface Mining and Conservation and Reclamation Act, No. 418						X				Yes	X				X					Department of Environmental Resources	
Solid Waste Resource Recovery Development Act						X				Yes	X								X	Department of Environmental Resources	

NOTES -- TABLE II

1. Land Use Categories -- See Chapter 2, for definitions and identification of the land use activities in each category. An X indicates that the land use category is addressed by the Act. It does not indicate the adequacy of authority or degree of implementation. See page reference for discussion.
2. Regulations Adopted -- Have regulations been adopted to implement the legislation? Symbols refer to:

Yes -- Regulations have been adopted

No -- Regulations have not been adopted

NA -- Information not available or in case of Non-Statutory Control, not applicable.
3. Implementing Responsibility -- The key agencies and/or levels of government that have responsibilities in implementing the legislation. Specific agencies, municipalities and/or special districts are identified in the comments section.
4. Type of Control -- See Chapter 2, Section 3, for definitions of each type of control.
5. An X indicates that the category is addressed by the act identified, it does not identify the adequacy or degree of implementation.

TABLE III

LAND USE ACTIVITY	Magnitude of the Problem	Current Activity				Likely Future Activity	COMMENTS
		Current Activity	Staffing	Financing	Likely Future Activity		
Urban							
Site Runoff	S	EP	--	--	EP	See Text pgs. 24-30,54	
Stormwater Runoff	UK	TR	NA	NA	TR	See Text pgs. 30-31	
Agriculture							
Pesticides	L	EP, L	--	--	EP, L	See Text pgs. 31-32,54-55	
Fertilizers	UK	NO	NA	NA	NO	See Text pgs. 32	
Feedlot Operations	M	IP TR	NA	NA	TR	See Text pgs. 33	
Erosion from Farm Practices	M	EP	--	--	EP	See Text pgs. 33-35,55	
Drainage	L	EP	NA	NA	NI	See Text pg. 35	
Liquid, Solid, Deepwell Disposal							
Solid Waste	S	EP, TR	--	--	EP, R,TR	See Text pgs. 35-40,55	
Liquid Sewage Sludge	M	EP	--	--	L, R	See Text pgs. 39-40,55	
Private Sewage Disposal	M	EP	--	--	EP	See Text pgs. 40-42,55	
Transportation Corridors							
Highway and Road Runoff	M	EP	NA	NA	EP	See Text pg. 43	
Railroad Runoff	L	EP	NA	NA	EP	See Text pg. 43	
Airport Runoff	L	EP	NA	NA	EP	See Text pg. 43	
Utility Rights-of-Way Runoff	L	EP	NA	NA	EP	See Text pg. 43	
Shoreland Landfilling							
Land or Construction Excavation	NI	EP	NI	NI	EP	See Text pgs. 43-44	
Dredging	NI	EP	NI	NI	EP	See Text pgs. 43-44	
Extractive Operations							
Pits and Quarries	S	EP	--	--	EP	See Text pgs. 44,56	
Mining	S	EP	--	--	EP	See Text pg. 44-45,56	
Brines from Oil and Gas	S	EP	--	--	EP	See Text pgs. 45-46,56	
Recreation							
Runoff from Specific Activities	L	EP	NA	NA	EP, L	See Text pgs. 46-47,56	
Pesticide Use	L	EP, L	--	--	EP, L	See Text pgs. 31-32,46-47	
Private Sewage Disposal	M	EP	--	--	EP	See Text pgs. 31-32,40-42	
Lakeshore and Riverbank Erosion							
Erosion	NI	EP	NI	NI	EP	See Text pg. 47	
Forest							
Timber Production	L	EP	--	--	EP	See Text pgs. 47-48	
Woodland Grazing	L	NA	NA	NA	NA	See Text pgs. 47-48	
Wildlife Management	L	NA	NA	NA	NA	See Text pgs. 47-48	
Recreation	L	EP, L	NA	NA	EP, L	See Text pgs. 47-48	

NOTES FOR TABLE III

1. Magnitude of the Problem -- The degree that the land use activity is reported to be a problem and/or perceived to be a problem by local or State officials. Symbols refer to:
 - S -- serious
 - M -- moderate
 - L -- low
 - UK -- yet to be determined
 - NI -- information not available.

2. Current Activity -- The land use activities where current activities are focused primarily at the State level. Activities of major emphasis are noted with asterisks (*). The types of activity are:
 - L -- development of new or improvements to legislation
 - R -- development of or improvements to the regulations
 - IP -- implementation of incentive programs
 - EP -- enforcement of control programs
 - TR -- technical research is needed to determine the type of controls needed, if any
 - NO -- no action
 - NA -- not applicable
 - NI -- information not available.

3. Staffing - The adequacy of staff assigned to the implementation of legislation addressing the land use activity. Symbols refer to:
 - + -- too many staff resources applied
 - 0 -- an adequate amount of staff resources applied
 - -- an inadequate amount of staff resources applied
 - NA -- not applicable
 - NI -- information not available

4. Financing -- The adequacy of the financing appropriated to the implementation of legislation addressing the land use activity. Symbols refer to:

+ -- too much financial assistance

0 -- adequate financial assistance

- -- inadequate financial assistance

NA -- not applicable

NI -- information not available.

5. Likely Future Activity -- The land use activities where there is likely to be future activity primarily at the State level. The types of activity are:

L -- development of new or improvements to legislation

R -- development of or improvements to the regulations

IP -- implementation of new or improved incentive programs

EP -- enforcement of new or improvement of control programs

NO -- no action

NA -- not applicable

NI -- information not available.

TR -- technical research needed.

of erosion resulting from the activity. The plan is to consider all factors that relate to the causes of erosion and sedimentation and should be designed to control these factors. To conduct certain earth-moving activities, a permit must be obtained from DER prior to any earth disturbance. The following activities are exempt from these regulations: (1) those activities involving plowing or tilling for agricultural purposes; (2) those activities for which a plan has been developed by SCS, for a SCP, USDA; (3) those activities requiring a permit under the Water Obstruction Act, the Surface Mining and Reclamation Act, the Clean Streams Laws, or Chapters 91-101 of the Department's Rules and Regulations; and (4) those activities which affect less than 25 acres of land. The Department can reduce the 25-acre limitations as set forth in the regulations.³⁰ Allegheny County has requested that limitation be reduced to 13 acres.³¹

In a case where a proposed activity or project requires other permits from DER, the erosion and sediment control plan may either be coordinated with or be made a part of the other permits. Generally, no separate permit will be issued, but the County Conservation District's technical review will be a factor in other permit actions.

In the southeastern portion of the State a few local jurisdictions have adopted soil erosion and sedimentation control ordinances. They require the builder or developer to submit an erosion control plan with his application for a building permit. Since July 1973, 200 permits have been issued. There are few instances where applications have been rejected.³² The adoption of permit and ordinance allows a jurisdiction to apply stricter controls than the DER's rules.

According to one DER official, construction sites are not usually inspected before a permit is issued. It is more likely that an inspection is prompted by a complaint. The Department may cause the builder to be fined if he is not in compliance with the regulations.³³

Evaluation

The Department of Environmental Resources has the authority to control site construction runoff under the Clean Streams Law. The Department is responsible for administering the permit program through its regional offices. The soil conservation districts aid landowners in developing and implementing plans. In cases where local ordinances have been adopted the jurisdiction is responsible for enforcing the law. The program has been weakened because of manpower shortages. There is not enough personnel to enforce the law. However, the plan and permit requirements themselves have deferred builders from undertaking large scale development.

3.3.1.2 Stormwater Runoff

Magnitude of the Problem

The primary stormwater problem in Pennsylvania involves combined sewers. Combined storm/sewage systems do not possess the capacity to treat the increased

loads generated during periods of increased stormwater runoff, thus causing significant overflows of raw, untreated sewage mixed with urban stormwater runoff. During flooding periods this becomes a sizeable problem. Little data is available that adequately describes the severity of the problem in Pennsylvania.³⁴

Current Activity and Evaluation

This area is being given top priority in the two designated 208 planning districts' studies. Many of the large urban areas have combined sewer systems. There are no regulations that require the Department to treat stormwater overflow.³⁵

3.3.2 Agricultural Areas

3.3.2.1 Pesticides

Magnitude of the Problem

Research indicates that the application of pesticides could have a potentially adverse effect upon animal and plant life in both aquatic and land ecosystems. However, because of the beneficial roles pesticides can play in controlling harmful pests, there has been a reluctance to ban pesticides outright.³⁶ According to sources at the Department of Agriculture, the effect of pesticides on water quality has caused serious concern in Pennsylvania.

Current Activity

In 1974 the Pennsylvania General Assembly passed the Pesticides Control Act. The purpose of the Act was to regulate the labelling, distribution, storage, use, application and disposal of pesticides. The Department of Agriculture was charged with administering the Act.

Under the Act all pesticides must be registered with the Department of Agriculture. The labelling of each container must comply with the provisions of the Act. Currently the Department of Agriculture is waiting for the restricted-use pesticides list from USDA. Until this list becomes available all products in containers labelled with cross-bones are considered restricted-use pesticides and should be applied accordingly.

The Act additionally stipulates that all dealers must be registered. Dealers are required to keep records of all transactions for a period of three years. All commercial pesticide applicators must be licensed to apply restricted-use pesticides. Private applicators must be certified. Pesticide applicators are required to be re-certified every 3 years; commercial applicators yearly. Recently a training program was implemented to certify operators.

The training program is in its initial stages. It appears to meet EPA requirements for State training programs. There are still some issues that have not been settled -- recertification standards.

There are approximately 5,000 commercial applicators, most of whom have been licensed. It has been estimated that there are approximately 12,000

private applicators; 8,000 of which still need to be certified. 37

Recertification requirements are being formulated. Participation in seminars or re-examination are two of the methods being considered. 38

The Department tries to carry out routine inspections. However, most of the inspectors' on-site visits are in response to citizen complaints. There are 10 inspectors for the entire State. Inspectors conduct seminars as well as their enforcement responsibilities. 39

Evaluation

Pennsylvania's regulatory program, with regard to the restrictions on the sale, distribution and application of pesticides, is not written specifically to prevent the deterioration of water quality.

3.2.2.2 Fertilizers

Magnitude of the Problem

Agricultural land is estimated to contribute approximately 20% of the total phosphorous loading in the Great Lakes and approximately 30% of that contributed by tributaries to the Great Lakes. 40

Given the number of farms in the State, there is a problem in attempting to regulate thousands of users of fertilizers and other nutrients. Developing regulations, monitoring and controlling practices, guiding nutrient applications are not feasible given the lack of technical knowledge and limitations on available funding and manpower resources. 41

Current Activity and Evaluation

According to the materials made available to us, the use of fertilizer is not legally regulated. The Cooperative Extension Service provides farmers with advice as to the time, method and amount of fertilizers that should be applied.

Because the impact of fertilizers in relation to time and method of application is unknown, no regulations have been developed to limit their effect on stream and groundwater quality. Better management practices could be instituted to limit potential adverse effects on water quality. No further action is anticipated at this time. Education and the increasing costs of fertilizers appear to prevent over-application.

3.3.2.3 Feedlot Operations

Magnitude of the Problem

The operation of animal feedlots in Pennsylvania has not posed serious water quality problems. There are only a small number of animal feedlots that are required to obtain a permit to operate. (EPA guidelines are not applicable to feedlots with certain sizes of operations under the NPDES program.) There are a tremendous number of small feedlot operations which are not subject to any specific rules or regulations. ⁴²

Current Activity and Evaluation

The Clean Stream Law provides DER with the authority to regulate any activity which creates a danger of pollution or has a potential for pollution. The regulation of feedlot operations falls within DER's general grant of power. DER has adopted numerous regulations which establish how an activity that has the potential for causing pollution must operate. However, no specific regulations have been adopted to fit these farming practices (feedlot operation.)

Late in 1974, representatives of the agricultural community approached DER. They indicated that DER's environmental regulations needed clarification and some of its environmental protection requirements needed to be adopted to better fit farming practices. A set of guidelines entitled, "Manure Management for Environmental Protection" were developed to integrate environmental protection and good farming practices. The guidelines strictly recommended farming practices that should be adopted to adequately protect the environment. ⁴³

There are many manure practices described in the manual. It emphasizes prevention rather than elimination of pollution after it occurs. It describes how manure can be managed to prevent pollution and provides the farmer with information that he can use to best manage manure. ⁴⁴

The County Cooperative Extension Service, and the USDA Soil Conservation Service, through the County Conservation Districts, are available to aid farmers in planning and designing manure management systems. The 208 study is considering feedlot operations. At this time it is not considered a priority area. ⁴⁵

3.3.2.4 Erosion from Farming Practices

Magnitude of the Problem

Soil erosion from runoff waters across land can cause sediment to be deposited into streams resulting in a variety of adverse effects to the quality of those streams. Sediment can result from agricultural runoff as well as construction site runoff in urban areas. It is the single greatest pollutant

from agricultural activities. Research indicates that sediment production from eroding construction sites can easily produce 10 times the soil loss from cropland.⁴⁶ Despite the soil loss, erosion and sedimentation is considered a moderate problem in Pennsylvania.⁴⁷

Current Activity

The Clean Stream Law provides the DER with a mechanism to control erosion from farming practices in Pennsylvania. The Act provides DER with the authority to regulate any activity which creates a danger of pollution or has a potential for pollution (the Act is discussed in detail in the urban areas section under construction site runoff).

Earth-moving activities on land greater than 25 acres require a permit from DER prior to any earth disturbance (does not apply to exceptions, i.e. plowing and tilling). All earth-moving activities, regardless of size, must have an erosion sedimentation control plan.

Soil Conservation Districts act as agents for DER in helping to carry out the soil erosion and sediment control program. They have no specific enforcement powers of their own. They can assist DER in carrying out enforcement measures when designated that responsibility. There are 66 districts in Pennsylvania covering all counties except Philadelphia.

Through a policy established by the Secretary of the Department of Environmental Resources, the Bureau of Soil and Water Conservation is to provide technical support on erosion control matters to other bureaus within DER. Inspection and enforcement activities are handled by the Office of the Deputy for Environmental Protection and Regulation and Deputy for Enforcement. Included in the operating procedures is a provision that DER may designate portions of the administrative enforcement program to local jurisdictions.

The resources management portion of the program has been assigned to the Bureau of Soil and Water Conservation and the 66 conservation districts. The Bureau's Division of Soil Resources and Erosion Control implements DER's program through information, training, administrative, and liaison activities. Districts provide information, planning assistance, plan review, and land use monitoring assistance to the Department of Environmental Resources. Twenty-one districts have requested and have been designated authority in the inspection portion of the program. The Department is working towards 100% local enforcement.

During 1975, only 40 permit applications for earth-moving activities were processed, down from about 50 for each year of 1973 and 1974. This reduction reflects districts have been successful in promoting conservation practices and that there has been a slowdown in construction starts. The Bureau and districts have held seminars and meetings in all parts of the State for developers, engineers, municipal officials, farmers and others to explain erosion and sedimentation control.⁴⁸

Evaluation

About half the farmers have not developed an erosion control plan. Many of them have applied to SCS and their Soil Conservation District for assistance to develop a plan. There is not enough manpower to assist all the farmers to quickly complete their plans. Consequently SCS has a backlog of requests. The Department hopes to have 100% of the plans completed and all the districts enforcing the law by 1980.⁴⁹

There are some farmers who are less than cooperative about completing an erosion control plan. They dislike the idea of the State telling them to develop a plan. However, many of them are slowly coming around. Litigation is considered a last resort in dealing with a farmer to comply with the law.

With regard to enforcement, BWQM has about one inspector for every two counties. At this time, sites are mostly visited in response to a complaint because there are not enough inspectors to enforce the law properly.⁵⁰

Responsibility for developing erosion control plans on lands farmed by tenant farmers has not been clearly spelled out. Tenant farmers farm 10% of all farmland in the State. The Department has drafted regulations that show the landowner responsible unless an agreement is signed with the tenant.⁵¹

3.3.2.5 Drainage

Drainage is not considered a high priority water quality problem in Pennsylvania. The area is currently being studied in the 208 program.⁵²

Currently local jurisdictions have a variety of powers that allow them to regulate land use and types of structures built. These powers may indirectly act to prevent the deterioration of water quality caused by drainage.

Soil Conservation Districts may also help to solve and prevent problems caused by drainage through their involvement with development and review of erosion control plans. Drainage practices are factors considered when approving a plan for development. Drainage practices are also considered when DER issues a permit to allow earth disturbing activities on 25 acres or more.

The contractor has identified the institutional structure that technically has the authority to deal with drainage problems. No information was provided to the contractor that indicates the extent to which these powers are used.

3.3.3 Solid, Liquid and Deepwell Disposal

3.3.3.1 Solid Waste Disposal

Magnitude of the Problem

The disposal of solid waste is of serious concern in Pennsylvania.⁵³

Current Activity

The Clean Streams Law provides broad protection for the State's streams. The Law prohibits the discharge of any sewage or industrial waste into State waters unless the discharge is authorized by a permit.

As discussed earlier the Law also places responsibility on landowners. It provides that whenever there is pollution, or danger of pollution, resulting from a condition which exists on a parcel of land, the landowner or occupier must correct the condition. Further, if any activity has a potential for causing pollution, it can require permits, establish conditions under which the activity shall be conducted, or issue orders requiring the person undertaking the activity to eliminate the potential for pollution.

The Pennsylvania Solid Waste Management Act, No 241, provides DER with planning and regulatory authority with respect to solid waste management. The Department may provide technical assistance to the municipality to develop the plan. DER may also assist counties and municipalities in the form of grants to pay up to 50% of the costs of preparing official plans and carrying out related studies, surveys and research. Additionally, the Department is responsible for promulgating rules and regulations regarding transport, storage, collection and disposal of solid wastes.

DER is responsible for issuing permits to use land for solid waste processing or for a disposal area of a solid waste management system. A license is also required to transport waste to a mine. There are additional requirements affecting transportation and disposal of solid wastes in mines.

The Department has issued 600 permits for processing sites. Two hundred sites are currently operating without permits. These sites are either being phased out or are in the process of applying for a permit.⁵⁴

There are between 150 and 200 sites where unregulated coal refuse is being processed. It is estimated that there are 6,000 operating hazardous waste sites.⁵⁵

In Erie County no hazardous waste disposal facilities exist. With regard to landfills, the Lakeview Landfill Development, Summit Township, which has approximately 6 months of permitted life remaining, is the only operating disposal site permitted to accept domestic and commercial solid waste in the county. Expansion of the site is planned. Greene Landfill, Greene Township, has a permit, but is not in operation to date. West Ridge Gravel Pit, Girard Township, has applied for a landfill permit, which is now being reviewed by DER. The City of Erie is proposing the construction of a fuel-producing waste recycling plant. Minor municipally-owned trash dumps are scheduled to be closed in 1977-1978.⁵⁶

Under the Act municipalities (incorporated towns, townships, boroughs) with a population density of 300 or more inhabitants must submit an officially adopted solid waste management plan. Municipalities within a county must approve the plan before it can officially be adopted. To date 67 counties have completed their plans. In some cases municipalities have resisted

approving the plan developed by the country, thus creating serious delays. In the overall program Erie County has completed a solid waste management plan at the county level. A majority of municipalities have adopted it.⁵⁷

Under the Act, municipalities are also authorized to adopt ordinances, regulations and standards for the storage and collection of solid wastes. They may contract with any person, other municipality, county or authority to carry out their responsibilities for the storage, collection, transportation, processing and disposal of their solid wastes. Certain counties have ordinances that regulate the issuance of permits. Certainly under municipalities' zoning powers the location of certain sites can be prohibited. Erie County Department of Health and the Division of Solid Waste Management cooperatively exercise control over the management of solid wastes in Erie County. Municipal control in the County is non-existent or limited in most areas. Municipalities are responsible for implementing their approved plans. They also have enforcement powers.

It appears that Pennsylvania is interested in pursuing the concept of resource recovery as an alternative to traditional methods of waste disposal. In 1974, the Pennsylvania General Assembly passed the Pennsylvania Solid Waste-Resource Recovery Development Act. This Act, No. 198, was signed into law by Governor Shapp on July 20, 1974 and is a financial incentive program designed especially for solid-waste resource recovery development projects. DER was made responsible for administering the program.

Act 198 created a \$20 million loan program to aid municipalities in developing resource recovery systems.⁵⁸ The legislation also included a loan assistance for rural areas of the State where resource recovery development may not be feasible at this time and suitable sanitary landfill disposal facilities are needed to replace existing unsatisfactory dumping areas.⁵⁹

Unfortunately, shifts in financial priorities have resulted in the funds necessary to implement this program being withheld. A large portion of the one-time appropriation of \$100,000 provided in 1974 for administering the resource activities has been utilized. ⁶⁰

Passage of the amendments to Act 198 in the 1975 session of the Legislature enhanced the loan program since the interest rate was dropped from above 7% to 3%, the payback period for a loan was extended from an impractical 10-year period maximum to a period of up to 30 years, a demonstration project was authorized to receive up to 75% funding and a limited grants program was established. The grants program was funded by a \$2,500,000 appropriation in the 1975-1976 fiscal year and further funded by an appropriation of \$1,500,000 for fiscal year 1976-1977. No monies were reappropriated for the low interest loan program and as a result the loan program is inactive and unavailable to municipalities. ⁶¹

After Act 198 became effective November 1, 1974, the DER moved to enter into various contracts and agreements and establish work schedules to perform the above tasks. The Department appropriated \$100,000 to administer the loan program. The Department anticipated using this money for technical and financial consulting services, printing, publication, development, and most

importantly, for additional staff to implement an effective resource recovery loan program. Several complications developed in achieving that end. 62

The Division was unable to hire any additional staff, even with the available administrative appropriation, due to a State government hiring freeze, imposed in the fall of 1974. Thus, with only one full-time employee available to work in the loan program and handling other important Division resource recovery activities, the program was, and remains, understaffed. 63

The Division also promptly developed the basic administrative rules and regulations to implement Act 198 and they were adopted by the Environmental Quality Board on November 21, 1974. Public hearings were held prior to adoption along with the required advertisement of the proposed rules and regulations in the Pennsylvania Bulletin. Those persons making statements at the hearings on the regulations also emphasized several modifications which are needed in Act 198 in order to make it an effective and attractive financing mechanism for resource recovery systems. 64

Several counties submitted applications to construct facilities. Erie County was one. The County proposed converting an existing non-operative incinerator into a refuse recycling plant utilizing the Econoco process which separates metallics for recycling and removes excess moisture from combustible portion and processes it into low sulphur fuel blocks suitable for use in most coal fired boilers. The estimated cost of the project was \$1.5 million. Current budget limitations make this financial assistance impossible at this time.

The 208 programs are studying Pennsylvania's hazardous waste problems. Pennsylvania is said to be the third largest generator of industrial wastes. Industries are being surveyed to determine those not in compliance and to establish a realistic schedule to bring them into compliance. DER wants to become actively involved in this area, but in the past funding has not been available to do so. It is hoped Federal assistance will be available.

Evaluation

Solid waste management is the responsibility of local government. The State's role has been to assist municipalities (technically and financially) as well as establish guidelines for planning and to enforce regulations to solid waste disposal.

Unfortunately, the Department's budget has not kept time with inflation. The Department's ability to assist communities in implementing their plans will be limited. Furthermore, there are serious manpower shortages, particularly with regard to inspection. It is unlikely the State will appropriate additional funds in the near future.

The use of resource recovery as a viable alternative to traditional solid waste disposal methods will be a long time in coming largely because Pennsylvania has a sizeable amount of undeveloped land. It is less expensive to haul wastes to a site than to build a resource recovery facility. Such a facility would initially require a large capital outlay. The building of a resource recovery facility is further complicated in jurisdictions which are

legally prohibited from entering into long-term contracts. This obstacle can be overcome by establishing an authority which has no such legal restrictions.

It is hoped the Federal Resource Recovery Act will provide some financial assistance for resource recovery activities as well as hazardous waste. Additional funds for county and regional planning and plan implementation are badly needed. The Federal Surface Mine Reclamation Act is also thought to be a source of funding whereby the disposal of solid wastes in strip mines can be controlled. The Department's field staff would be the first area expanded in both size and expertise should additional funding sources become available.

3.3.3.2 Liquid Sewage Sludge

Magnitude of the Problem, Current Activity, Evaluation

The Department of Environmental Conservation would like to become more involved with regulating industrial waste disposal. There are 50 licensed sites and 50 more are undergoing the application process. It is estimated that there are up to 3,000 operating industrial facilities polluting State waters.⁶⁵

By law, the Department of Environmental Resources is required to approve and issue permits for the operation of land application techniques. No particular degree or method of wastewater treatment is specified or prohibited under the statutes. However, all biodegradable and non-biodegradable wastes are required to receive secondary treatment. There is a clause that waste can be deposited into a stream polluted by coal mine discharges, but it must undergo primary treatment. All other discharges require secondary treatment. There are no specific standards or permit systems dealing with land disposal of wastewater. A manual of guidelines has been prepared and includes standards for site selection, systems operation, and installation of equipment. The maintenance of a storage area is recommended to provide a specific dosage rate throughout the season. The groundwater must be at least 10 inches below the surface. Monitoring wells are required at all sites. The Pennsylvania guidelines do not specify the types of crops which can be grown at these land treatment sites.⁶⁶

There are no provisions that provide for alternative methods of treating industrial wastes other than land disposal. Existing penalty provisions are inadequate. Those industries who violate the law find it easier to pay the fine than alter their current operation. Further there are no real compliance incentives. Ultimately, municipalities, not industries, are responsible for disposal of industrial wastes.

Haulers of industrial wastes are not required to obtain a license in Pennsylvania. Allegheny County is one county that has hauler requirements. It is entirely on its own initiative.⁶⁷

There is a need to establish a new program whereby the penalty provisions would be increased, enforcement improved and new methods of disposal investigated. Haulers of industrial wastes should be licensed.

3.3.3.3 Private Sewage Disposal

Magnitude of the Problem

In the past many of the older communities developed on small lots, flood plains or under other circumstances. They have become the source of many of the State's pollution problems with regard to on-site sewage disposal. Pollution problems are also caused because of lack of maintenance and poor installation practices.⁶⁸

These problems are compounded by the fact that a large portion of Pennsylvania's soil is unsuitable for the installation of a conventional or alternative systems of effluent disposal. DER estimates that less than 20% of Pennsylvania's land areas are suitable for on-lot sewage disposal. Approximately 38% are considered marginal, and the remaining 42% totally unsuitable.⁶⁹

Current Activity

The Sewage Facilities Act as amended (Act 537) is the basic law governing home sewage disposal in Pennsylvania. It requires all individual on-lot sewage disposal systems, except those on rural residences as defined in the rules and regulations, to obtain a permit. In Pennsylvania a rural residence is defined as a structure occupied or intended to be occupied by not more than two families on a tract of land of 10 acres or more. This exception does not apply in those counties, townships, or boroughs that have enacted ordinances requiring permits for all on-site disposal facilities (including rural residences).

The only person who can issue a permit is a Sewage Enforcement Officer (SEO) certified by the DER Certification Board and designated by municipal ordinances as the SEO for the municipality or local agency having jurisdiction in the area.

The application for a permit is a standard DER form and can be obtained from any certified sewage-enforcement officer. The applicant must fill out the form and return it with the required fee to the sewage-enforcement officer in his municipality. If the plan for the proposed treatment system meets required standards, the application will be approved and a permit will be issued authorizing construction. Required standards address: minimum distances, sizing of tanks and leaching field, slope and soil requirements, locational factors, installation and maintenance practices. If the permit is denied, the decision may be appealed by submitting a written request to the local agency for a hearing at which evidence may be presented for further consideration. A builder or owner may propose an alternative system if conventional methods of effluent treatment are unacceptable.

The Act also places emphasis on planning. It requires each municipality to submit to DER for approval, an officially adopted plan for sewage systems within its jurisdiction. Each plan must cover existing sewage systems in detail, proposed sewage systems (within the next 10 years), and where no systems exist or are proposed, the plan must include a land classification system to prevent on-lot sewage disposal systems from being installed where soils are not suitable. Provisions are made under the Act for grants to help with such planning.⁷⁰

By law, each local agency (which is defined as a municipality or any combination of municipalities acting cooperatively or jointly under the laws of the Commonwealth, a county, a county department of health, or a joint county department of health), is responsible for submitting an official comprehensive plan for the provision of adequate sewage needs for rural, suburban, and urban areas. When approved by the Department of Environmental Resources, the local agency then has the responsibility for administering this Act at the local level -- accepting applications for sewage system permits, inspecting proposed sites, reviewing proposed plans and issuing or denying permits.⁷¹

The Environmental Quality Board is the board established under the Administrative Code of 1929. This Board has the responsibility to adopt rules and regulations for the Department of Environmental Resources as are necessary to implement the provisions of the Pennsylvania Sewage Facilities Act. This includes setting standards for construction, maintenance and operation of all community sewage systems and individual sewage systems.⁷²

In general, the Department of Environmental Resources has the responsibility to assure that municipalities properly prepare, up-date and implement their Official Plans and that the local agencies properly administer their permit issuance duties.

Under the 1974 amendments to the Pennsylvania Sewage Facilities Act, the Department has the power and duty to order municipalities to submit Official Plans and plan revisions.⁷³

The Department also reviews and approves or disapproves the plan or plan revision, can order the implementation of the plan or its revision, and administers the program of providing reimbursement to the municipalities. Under the rules and regulations, where no approved plan exists or where the Department finds the municipality has not implemented the plan, the Department may order the municipality to take such action as deemed necessary to correct the problems.⁷⁴

In the area of permit administration, all permits are issued by the local agency. However, the Department is responsible for reviewing the performance of the local agencies in administering the permit system. The Department may order a local agency to modify its permit issuance practices to correct deficiencies, and the Department is also required to revoke or suspend the certification of Sewage Enforcement Officers when necessary in accordance with the rules and regulations.⁷⁵

A State Board for Certification of Sewage Enforcement Officers was created within the Department of Environmental Resources. This Certification Board has the power and duty to schedule examinations, collect examination fees, and to review and pass upon the applications for certification of Sewage Enforcement Officers. The Board also administers the certification examination program, although the examination is prepared by the Department.⁷⁶

Where the Department has revoked or suspended the certification of a Sewage Enforcement Officer, the Certification Board shall hold hearings if the Officer appeals. The Board shall then make a final judgement on the revocation or suspension. In addition, the Board shall compile and maintain a register showing the names and addresses of all Certified Sewage Enforcement Officers, and shall issue the certification renewals every two years.⁷⁷

Chapters 71 and 73 of the Rules and Regulations of the Department of Environmental Resources were developed under the Pennsylvania Sewage Facilities Act and the Clean Streams Law. Thus, within the State's comprehensive program of water quality management, the planning conducted pursuant to the Pennsylvania Sewage Facilities Act is carefully integrated into the Clean Streams program to insure the sanitary disposal of sewage wastes in such a fashion as to prevent pollution of waters of the State. Thus, municipal planning under the Sewage Facilities Act is a mechanism by which the State's comprehensive water quality management plans can be kept up-to-date.⁷⁸

Two types of tanks are used for the primary treatment of home sewage in Pennsylvania -- septic tanks and aerobic tanks. Regulations stipulate that aerobic sewage tanks or separate aerobic treatment units approved for use in Pennsylvania must conform with the National Sanitation Foundation Standard 40, dated November 13, 1970.

The methods of effluent disposal currently authorized by the DER include conventional methods and alternate systems. Conventional methods are standard trenches, seepage beds, serial-distribution systems, and subsurface sand filter systems. Alternate systems include elevated sand mounds, sand-lined beds and trenches, oversized areas, and shallow placement areas.

Evaluation

Pennsylvania's program links management of on-site systems to Pennsylvania's water pollution control responsibilities and to local planning for provision of sewage treatment facilities.

The passage of the amendments to the Sewage Facilities Act conferred considerably more responsibility on Pennsylvania's local government than in the past. Each municipality is responsible for administering its own sewage disposal permit program.

3.3.4 Transportation Corridors

Magnitude of the Problem

Transportation affects water quality through runoffs to surface water from highways and airports, oil and salts leaching into adjacent soils, herbicidal applications along roadsides and railroad sites, and accidental spillage of materials. Certain forms of solid waste, such as litter and debris, are found near highways and railroads, but nutrient loading is seldom considered important runoff from transportation. Pennsylvania is considered to have a moderate problem with regard to non-point pollution impacts on water quality resulting from transportation systems,⁷⁹

Current Activity and Evaluation

At the State level, the general regulations controlling pesticides, and sedimentation apply to non-point source aspects of highways, railroads and airports.

The Clean Streams Law and Chapter 102 of DER's Rules and Regulations apply to earth-moving activities in transportation corridors. In general, a developer is required to obtain a permit where his activity affects 25 acres or more. (Refer to urban areas section, site construction runoff, for a more detailed account of the law.) In addition, public use airports receiving FAA funding are subject to runoff control.

All State and county roads which receive Federal funding must provide for control of runoff and erosion as specified by DOT regulations. These specifications are enforced by the Pennsylvania Department of Transportation. Further, these roads are not exempt from DER regulations.

3.3.5 Shoreland Filling

Magnitude of the Problem, Current Activity and Evaluation

There is little information available with regard to the effect of the shoreland filling on water quality in Pennsylvania. At the State level, the Water Obstruction Act, coupled with the Clean Streams Law, provides the Department of Environmental Resources with some authority to control dredging and land excavation activities through a permit program.

As mentioned before, the Clean Streams Law provides DER with the authority to regulate any activity which creates a danger of pollution or has a potential for pollution.

The Act stipulates that DER may initiate programs for the control of potential pollution if any activity is not regulated by any other provision of the Clean Streams Law, and the DER finds the activity has a potential for causing pollution. In this case, DER can require permits, establish conditions under which the activity shall be conducted, or issue orders requiring the person undertaking the activity to eliminate the potential for pollution. The Law applies to all Pennsylvania individuals as well as corporations. There are penalties for violating this law.

The Water Obstruction Act also provides DER with a regulatory tool to control shoreland filling activities. The Act prohibits any person or persons, associations, counties, etc. from constructing or making any other water obstruction without first obtaining a permit from DER. To obtain a permit an application must be submitted to DER accompanied by a complete set of plans.

3.3.6 Extractive Operations

3.3.6.1 Pits and Quarries

Magnitude of the Problem, Current Activity and Evaluation

Pit and quarry operations have the potential to cause serious pollution problems in Pennsylvania. These operations are regulated under the same statutes as mining activities (refer to section under mining).

3.3.6.2 Mining

Magnitude of the Problem

In Pennsylvania mining activities have had serious detrimental effects on water quality -- i.e., acid drainage from abandoned deep mines, erosion and sedimentation from surface mining activities.⁸⁰

Current Activity

The Surface Mining Conservation and Reclamation Act covers extractive operations of all minerals including coal, clay, stone, gravel and other materials.

Under the Act any person who wishes to mine coal or conduct an active operation to mine other materials by surface mining methods must first obtain an operator's license.

Each separate mining operation must have a permit issued by DER before any mining activities, by surface mining methods, may begin. A reclamation plan and bond must accompany each application. No approval will be granted unless a practical method of avoiding acid mine drainage and avoidable siltation is set forth with the application. During mining operations, failure to prevent water from draining or accumulating in the pit shall render the operator liable to the sanctions and penalties provided in this Act and in the Clean Streams Law. Pennsylvania can also control sedimentation and erosion from active surface mining under its Erosion Control Regulations.

Pennsylvania also has statutes and regulations that regulate strip mining. They are considered perhaps the strongest in the nation.

Under the law mine operators are required to have a permit to operate. To obtain a permit a plan and bond must be submitted for approval to DER. Operators must maintain detailed records of their operations. Methods of casing through seams are also detailed in the law.

The laws also require mine operators to plug and case mine operations when they are abandoned. The Department of Environmental Resources is ultimately responsible for plugging and casing mines when the operator has failed to do so or where mines were abandoned before the plugging requirements existed. There are also regulations that describe the disposal of waste materials from coal mines.

The Commonwealth is divided into 46 mining districts. Each district has inspectors who are responsible for inspecting all extractive operations and reclamation activities. The large number of mining operations makes it impossible for the inspectors to visit sites on a routine basis. If the Department intends to comply with the new Federal requirements, it will need to expand its field staff. The Department must apply to the Federal government to secure the additional funds it needs to increase its staff.⁸¹

Evaluation

Abandoned mines continue to cause landslides, erosion and sedimentation, and acid mine drainage, in Pennsylvania, particularly in the western portion of the State.⁸² Some of the problems may be cleaned up by backfilling and resealing the mines. Many officials feel this will only temporarily abate the problem. They suggest: (1) mine barrier designs be changed so that seals can be maintained, (2) a groundwater study be undertaken to provide more information in locating new mines and determining barrier pressures, (3) more frequent inspections be conducted.

Some monies were appropriated under the Land and Water Conservation Act to clean up abandoned mines.⁸³

Under Pennsylvania law, bonds are partially refundable after planting. This practice could have devastating effects on water quality. For example, there are many cases where revegetation does not satisfactorily occur and a portion of the bond has already been released. Bonds should only be refundable, in total, when spoilage has satisfactorily revegetated.⁸⁴

Mine inspectors should be assisted by a forester or some other individual with technical expertise in reforestation and revegetation.⁸⁵

3.3.6.3 Brines from Oil and Gas

Magnitude of the Problem, Current Activity and Evaluation

Prior to 1955, Pennsylvania did not have any statutes that covered the capping and filling of oil and gas wells. Consequently many of the 500,000

wells drilled before the existing law became effective were left unplugged or haphazardly capped.⁸⁶ Unfortunately the seepage of ground and surface water into these abandoned wells has become a significant contributor to the degradation of water quality in Pennsylvania.

A serious effort is being made to cap and fill those abandoned mines. Unfortunately there is not sufficient capital nor manpower available to immediately correct this problem.⁸⁷

Pennsylvania's Oil and Gas Conservation Act controls the construction, surveillance requirements, drilling and operating of all new wells. In order to drill any new wells a permit must be obtained from DER. The Department may only deny a permit if the applicant fails to complete the application form properly. The Department does not have the authority to deny a permit if the applicant does not submit a plan.

The Act requires all wells be plugged. However, no bond is required to secure a drilling permit. A bill has been proposed that would institute bonding requirements. In a case where a well was not plugged sufficiently the bond would be forfeited. The funds from the bonding company would then be used to plug the well.

When State land is leased to drill oil or gas wells, stricter controls with regard to capping and plugging and preconstruction review may be imposed.

Since the first oil and gas lease was issued in 1947, a total of 728,158 acres have been leased by the Department to industry for oil and gas exploration and development. Some of these lands have been leased several times. Over 300,000 acres of State Forest and Park lands have been evaluated for oil and gas potential by the drilling of 446 wells. 251 wells were productive and 122 were abandoned as dry. Additional holes have been drilled for gas storage purposes. The State Forest and Parklands also lease fields for gas storage. Eight such fields are currently being used for this purpose.⁸⁸

Statewide there are 310,000 operating oil wells and 18,000 gas wells. There are 11 field inspectors for the entire State. A well is usually inspected in the initial stages of operation. Thereafter the inspector will visit the site only if he receives a complaint. There is not enough manpower to carry out routine inspections at every site.⁸⁹

3.3.7 Recreation

Magnitude of the Problem

There has been no significant degradation of land and adjacent waters caused by recreational land uses. The problems that do exist are localized and are related to specific types of activities -- i.e., dirt bikes, snowmobiling, hiking. These problems do not occur throughout the year. They are related to the seasonal nature of recreational activities.

Current Activity and Evaluation

DER does have some power to regulate adverse activities on public recreation lands through its rule-making authority. There are no regulatory controls over trail bikes. When these bikes are driven on undesignated trails they expose soil to erosion and sedimentation. Two bills have been introduced that would require all off-road vehicles to be registered. To date no action has been taken.

In 1971 the State Legislature passed the Snowmobile Law. The intent of the Law was to protect State Forest and Park Lands, the wildlife and its habitat, and to assure that other public values and recreational uses are not adversely affected. It emphasizes public safety, not water quality. The Department of Environmental Conservation, Bureau of Forestry, Division of State Forest Management, is responsible for registering snowmobiles and snowmobile dealers, snowmobile trail construction, snowmobile safety training, receiving fines and compiling accident statistics.

Currently there are approximately 56,000 registered snowmobiles and 885 registered dealers. There are over 2,300 miles of snowmobile routes on State Forest Land.

With regard to pesticide use, refer to the section on agricultural areas. The same restrictions on licensing, use and application apply to pesticide use in recreational areas. With regard to private sewage disposal, the same authorities and restrictions apply in recreational areas as found in the section on solid, liquid and deepwell disposal.

3.3.8 Lakeshore and Riverbank Erosion

Magnitude of the Problem, Current Activity and Evaluation

Erosion from the natural actions of a lake or river, and how to control it has not yet been determined. This includes identification of the relationship between various different land use activities and their indirect impact on lakes and streams. Without such a determination, controls cannot be developed. The Contractor was unable to identify any control for lake-shore or riverbank erosion in the State.

3.3.9 Forestry

Magnitude of the Problem, Current Activity and Evaluation

In Pennsylvania, forestry activities do not generate significant pollution loads on either surface or ground water. The few problems that the State has experienced have been generated on roads and skid trails used for logging operations. Although these trails provide access for equipment and are used for transporting logs they can leave soil exposed to erosion and sedimentation.⁹⁰

Mining (extractive operations), recreation (recreation areas) and pesticide (agriculture) activities are discussed in their respective sections. They similarly apply in forested areas.

No woodland grazing is permitted on State forest land. Pennsylvania operates a timber management program. Under the program 13,000 acres are designated for special use such as natural areas, parks, picnic areas and administrative areas. These areas will not be managed for timber products. No cutting or harvesting operations are permitted on these established areas. In addition, there are 222,000 acres of state owned land that is too steep, rocky, or of such poor quality that timber management would be impractical. Over 1,600,000 acres have been designated as commercial forest. Periodic harvesting operations are conducted on these lands.⁹¹

All the timber that is to be sold is marked or designated in accordance with approved silvicultural practices by the local Bureau of Forestry. Bids are solicited once the sale area is delineated, the volume of timber is computed and the sale is advertised. The award is made to the highest bidder, who after completing the required timber sale contract, submitting payment for stumpage and furnishing the necessary performance bond, begins operations. The Forester is also responsible for making sure specifications for haul roads, skid roads and drainage structures are completed before the sale operations begin.⁹²

The average allowable cut for the 1970 to 1974 inclusive management period was 66,525,800 net board feet of sawtimber and 19,523,497 cubic feet of pulpwood. During the period of 1970 through 1975, inclusive, the Department of Environmental Resources, Bureau of Forestry, entered into 528 timber sales. None of the harvesting operations occurred in the basin area.⁹³

The Bureau of Forestry also participates in cost sharing programs with woodland owners. Professional guidance is available from the District Forester for a range of forestry activities: salvage cutting, crop tree selection, harvest and regeneration betterment, and timber stand improvements. The Bureau of Forestry also conducts training classes in lumber, log and tree grading.

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89. Interview with Donald A. Lazarchik.
90. Interview with Paul B. Youkin, Assistant Chief, Division of State Forest Management, Bureau of Forestry, DER, October 14, 1977.
91. Bureau of Forestry, page 13.
92. Ibid.
93. Ibid.

CHAPTER 4

FRAMEWORK ANALYSIS

4.1 GENERAL

This chapter presents the Contractor's analysis of the legislative framework for the State of Pennsylvania. The analysis, based on the evaluations of land use activities presented in Chapter 3, identifies the strengths and weaknesses in the framework and the future actions which could correct them. The discussion covers each land use activity in terms of the problem, the current framework, the strength or weakness and the possible future actions.

4.2 ANALYSIS

4.2.1 Urban Construction Site Runoff¹

The Department of Environmental Resources under the Clean Streams Law is given the authority to control sedimentation from earth-moving activities. The Department of Environmental Resources is responsible for administering the program with municipalities and other units of local government. The DER has established standards for program implementation and the local governments may develop and implement their programs within these guidelines. DER must make certain local jurisdictions comply with the guidelines before implementing a program.

The major problem with implementation of the program is that there are not enough field inspectors to ensure compliance with the law. In addition to manpower shortages, the program does not provide controls for earth-moving activities on lands of less than 25 acres. The legislation focuses on the large-scale development; many smaller projects, which do not generate non-point pollution cannot be strictly unregulated.

4.2.2 Pesticides²

Pennsylvania recently instituted a training program to certify commercial and private applicators. Although the program is not specifically focused on preventing the deterioration of water quality, it does have a positive

effect on maintaining the quality of water through its control of pesticides. The requirements with regard to recertification have not been finalized. Continuing education or examinations have been suggested as methods of assuring recertification. The policy decisions on acceptable recertification standards, as well as many other issues still need further study. There are a limited number of field inspectors. To keep up with the expanding number of applicators, the staff must expand. It is hoped the Department of Agriculture will provide needed financial resources to the State to operate the training program and gain and maintain compliance within the law.

4.2.3 Erosion from General Farm Practices³

DER currently has the authority to regulate agricultural activities to control erosion and sedimentation through the Clean Streams Law. Pennsylvania's erosion and sedimentation control program is developed under the authority of Chapter 102 of its rules and regulations. The regulations require any one proposing an earth-moving activity to develop and implement a plan for control of erosion and sedimentation resulting from that activity. Earth-moving activities on land greater than 25 acres are required to have a permit from DER prior to earth disturbance. The plowing and tilling of land are exempt from permit requirements.

All farmers are required to have a conservation plan. About half already have. The remainder are either reluctant to develop plans or are awaiting assistance from the Cooperative Extension Service.

County Conservation Districts act as agents for DER in carrying out the program. More specifically they assist DER in carrying out enforcement measures when designated that responsibility. Twenty-one of the 66 Districts handle all erosion control inspections. It is hoped that all Districts will sign agreements whereby they may carry out inspections.

An additional consideration to ensure the implementation of controls must be the development of a cost-share program with greater resources than those currently available through Federal programs. From the Contractor's viewpoint, any program lacking this feature will have severe implementation problems.

4.2.4 Solid, Liquid-Deepwell Disposal⁴

The Clean Streams Law provides DER with broad authority to protect the State's streams. The Pennsylvania Solid Waste Management Act, No. 291 provides the DER with adequate authority to control the disposal of solid wastes. The authority includes requirements for planning solid waste systems and licensing and regulation of disposal facilities.

The weakness in the control of solid waste is in the implementation and enforcement of the authority. Specifically, there is a lack of on-going surveillance of active landfills and monitoring of inactive landfills.

Additional financial resources are needed to correct manpower shortages. Additional funding would also allow the Department to expand its existing program and become involved with hazardous wastes, coal refuse, and alternative methods to traditional waste disposal. The Pennsylvania program for on-site sewage disposal appears to illustrate a sound approach to this problem area, particularly because it links management of on-site systems to DER's water pollution control responsibilities and to local planning for provision of sewage treatment facilities.

4.2.5 Extractive Operations⁵

Pennsylvania's mining laws are one of the strictest, if not the strictest, in the nation. Unfortunately, they are undercut because of limited enforcement. There are too few inspectors for the large number of mining activities that operate in the State.

Problems also remain in Pennsylvania with abandoned sites which cause landslides, erosion and sedimentation, and acid mine drainage into receiving waters. These problems are slowly being eliminated. New methods of sealing must be explored. Inspection of abandoned sites must be continued to ensure areas remain properly sealed and reclaimed.

FOOTNOTES -- CHAPTER 4

1. See discussion of the problem, current activities and evaluation in Section 3.3.1.1.
2. See discussion of the problem, current activities and evaluation in Section 3.3.2.1.
3. See discussion of the problem, current activities and evaluation in Section 3.3.2.4.
4. See discussion of the problem, current activities and evaluation in Section 3.3.3.1.
5. See discussion of the problem, current activities and evaluation in Sections 3.3.6.1, 3.3.3.2, and 3.3.3.3.

CHAPTER 5
RELEVANT LEGISLATION

5.1 GENERAL

This Chapter presents a summary of the legislative authority for control of land use activities that may cause water pollution. Where information was available, the legislation is summarized by Act with the implementing agency, affected land use activity, purpose, provisions and administrative responsibilities identified. Where the Contractor is unable to secure information allowing summarization, the acts are listed.

The summaries are presented in order of Act and then alphabetic order. A listing follows:

Act No. 164	Municipal Authorities Act of 1945
Act No. 222	Clean Streams Law
Act No. 241	Solid Waste Management Act
Act No. 335	Water Obstruction Act
Act No. 418	Surface Mining Conesevation and Reclamation Act
Act No. 443	Land and Water Conservation Act
Act No. 537	Sewage Facilities Act
Act No. 24	Pesticide Control Act of 1974

POLITICAL JURISDICTION: Pennsylvania

Title or Reference: Municipality Authorities Act of 1945, Act of May 1945,
P.L. 382, No. 164

Implementing Agency: Municipalities

Affected Land Use Activities: All categories

Purpose:

To provide for the incorporation as bodies corporate and politic of "Authorities" for municipalities, counties, and townships; prescribe the rights, powers, and duties of such Authorities.

Provisions:

1. Authorizes municipal authorities of any municipality singly or of two or more municipalities jointly to organize an Authority under this Act, and adopt a resolution or ordinance signifying their intention to do so. Thereafter, the municipal authorities of such municipality or municipalities shall cause a notice of such resolution or ordinance to be published at least one time in the legal periodical of the county or counties in which such Authority is to be organized, and at least one time in a newspaper published and of general circulation in such county or counties.
2. States that every Authority incorporated under this Act shall be a body corporate and politic, and shall be for the purpose of acquiring, holding, constructing, improving, maintaining and operating, owning, leasing, either in the capacity of lessor or lessee, projects of the following kind and character, buildings to be devoted wholly or partially for public uses, including public school buildings, and facilities for the conduct of judicial proceedings, and for revenue-producing purposes; transportation, marketing, shopping, terminals, bridges, tunnels, flood control projects, highways, parkways, traffic distribution centers, parking spaces, airports, and all facilities necessary or incident thereto, parks, recreation grounds, and facilities, sewers, sewer systems, or parts thereof, sewage treatment works, including works for treating and disposing of industrial waste, facilities and equipment for the collection, removal or disposal of ashes, garbage, rubbish and other refuse materials by incineration, landfill or other methods, steam heating plants and distribution systems, incinerator plants, waterworks, water supply works, water distribution systems, swimming pools, playgrounds, lakes, low head dams, hospitals, health centers, motor buses for public use, when such motor buses are to be used within any municipality, subways and industrial development projects, including but not limited to projects to retain or develop existing industries and the development of new industries.

3. Grants every authority with the rights and powers:
- a. To have existence for a term of 50 years and for such further period or periods as may be provided in articles of amendment approved under Subsection E of Section 3.2;
 - b. To sue and be sued, implead and be impleaded, complain and defend in all courts;
 - c. To adopt, use and alter at will, a corporate seal;
 - d. To acquire, purchase, hold, lease as lessee and use any franchise, property, real, personal or mixed, tangible or intangible, or any interest therein necessary or desirable for carrying out the purposes of the Authority, and to sell, lease as lessor, transfer and dispose of any property or interest therein at any time acquired by it;
 - e. To acquire by purchase, lease or otherwise, and to construct, improve, maintain, repair and operate projects;
 - f. To make by-laws for the management and regulation of its affairs;
 - g. To appoint officers, agents, employees, and servants to prescribe their duties and to fix their compensation;
 - h. To fix, alter, charge and collect rates and other charges in the area served by its facilities at reasonable and uniform rates to be determined exclusively by it, for the purpose of providing for the payment of the expenses of the Authority, the construction, improvement, repair, maintenance and operation of its facilities and properties, the payment of the principal of and interest on its obligations, and to fulfill the terms and provisions of any agreements made with the purchasers or holders of any such obligations, or with the municipality incorporating or municipalities which are members of said Authority or with any municipality served or to be served by said Authority;
 - i. To borrow money, make and issue negotiable notes, bonds, refunding bonds, and other evidences of indebtedness or obligations (herein called "bonds") of the Authority, said bonds to have a maturity date not longer than 40 years from the date of issue, except that no refunding bonds shall have a maturity date later than the life of the Authority, and to secure the payment of such bonds or any part thereof by pledge or deed of trust of all or any of its revenues and receipts, and to make such agreements with the purchasers or holders of such bonds;
 - j. To make contracts of every name and nature and to execute all instruments necessary or convenient for the carrying on of its business;

- k. Without limitation of the foregoing, to borrow money and accept grants from and to enter into contracts, leases or other transactions with any Federal agency, Commonwealth of Pennsylvania, municipality, school district, corporation or Authority;
 - l. To have the power of eminent domain;
 - m. To pledge, hypothecate or otherwise encumber all or any of the revenues or receipts of the Authority as security for all or any of the obligations of the Authority;
 - n. To do all acts and things necessary or convenient for the promotion of its business and the general welfare of the Authority, to carry out the powers granted to it by this Act or by other acts;
 - o. To contract with any municipality, corporation, or any public Authority of this or any adjoining State, on such terms as the said Authority shall deem proper, for the construction and operation of any project which is partly in this Commonwealth and partly in such adjoining State;
 - p. To enter into contracts to supply water and other services to and for municipalities that are not members of the Authority, or to and for the Commonwealth of Pennsylvania, municipalities, school districts, persons or authorities, and fix the amount to be paid therefor;
 - q. To make contracts of insurance with any insurance company, association or exchange authorized to transact business in the Commonwealth of Pennsylvania;
 - r. To charge the cost of construction of any sewer or water main constructed by the Authority against the properties benefited, improved or accommodated thereby to the extent of such benefits;
 - s. To charge the costs of construction of any sewer or water main constructed by the Authority against the properties benefited, improved, or accommodated thereby according to the foot front rule;
4. States that the powers of each Authority be exercised by a governing body (board) composed as follows:
- a. If the Authority is incorporated by one municipality, the board shall consist of such number of members not less than five as shall be set forth in the articles of incorporation or amendment thereto;
 - b. If the Authority is incorporated by two or more municipalities, the board shall consist of a number of members at least equal to the number of municipalities incorporating the Authority, but in no event less than five;

5. States that a majority of the members shall constitute a quorum of the board for the purpose of organizing the Authority and conducting the business thereof and for all other purposes, and all action may be taken by vote of a majority of the members present, unless in any case the by-laws shall require a larger number. The board shall have full authority to manage the properties and business of the Authority and to prescribe, amend and repeal by-laws, rules and regulations governing the manner in which the business of the Authority may be conducted, and the powers granted to it may be exercised and embodied. The board shall fix and determine the number of officers, agents and employees of the Authority and their respective powers, duties and compensation and may appoint to such office or offices any member of the board with such powers, duties and compensation as the board may deem proper.
6. Stipulates that all construction, reconstruction, repairs or work of any nature made by any Authority, where the entire cost, value or amount of such construction, reconstruction, repairs or work, including labor and materials, shall exceed \$1,500 except construction, reconstruction, repairs or work done by employees of said Authority, or by labor supplied under agreement with any Federal or State agency, shall be done only under contract or contracts to be entered into by the Authority with the lowest responsible bidder upon proper terms, after due public notice has been given asking for competitive bids.
7. Provides the Authority with the power to acquire, by purchase or eminent domain proceedings, either the fee or such right, title, interest or easement in such lands, water and water rights as the Authority may deem necessary for any of the purposes mentioned in this Act: provided, however, that water and water rights may not be acquired unless and until approval is obtained from the Water and Power Resources Board.

Administrative Responsibility:

Once a municipality or two or more municipalities jointly organize an Authority they have the authority to exercise the powers delegated to them in the Municipal Authorities Act.

POLITICAL JURISDICTION: Pennsylvania

Title or Reference: Clean Streams Law approved June 1937, Act 394 as amended October 1976, Act 222

Implementing Agency: Department of Environmental Resources, Environmental Quality Board, Environmental Hearing Board,

Affected Land Use Activities: All categories

Purpose:

To preserve and improve the purity of the waters of Pennsylvania for the protection of public health, animal and aquatic life, and for industrial consumption, and recreation.

Provisions:

1. Prohibits the discharge of sewage or industrial waste or any substance into the waters of this State, which causes or contributes to pollution as herein defined or creates a danger of such pollution. Any such discharge is considered not to be a reasonable or natural use of such waters, and to be against public policy and a public nuisance.
2. Allows any person or municipality who is aggrieved by any action of the Department under this Act the right to appeal such action to the Board. The Board may adopt rules and regulations establishing the procedure for, and limiting the time of, the taking of such appeals. Hearings may be held before one or more members of the Board or before a hearing examiner appointed by the Board.
3. States that all fines collected under the penal provisions of this Act and all civil penalties collected shall be paid into the Treasury of the State in a special fund known as "The Clean Water Fund," which shall be administered by the Sanitary Water Board for use in the elimination of pollution.
4. Stipulates that no person or municipality shall place or permit to be placed, or discharge or permit to flow, or continue to discharge or permit to flow, into any waters of the State, any sewage, except as hereinafter provided in this Act.
5. States that whether or not a municipality is required by other provisions of this Act to have a permit for the discharge of sewage, if the Department finds that the acquisition, construction, repair, alteration, completion, extension or operation of a sewer system or treatment facility is necessary to properly provide for the prevention of pollution or prevention of a public health nuisance, the Department may order such municipality

to acquire, construct, repair, alter, complete, extend or operate a sewer system and/or treatment facility. Such order shall specify the length of time, after receipt of the order, within which such action shall be taken.

6. Requires all plans, designs, and relevant data for the construction of any new sewer system, or for the extension of any existing sewer system, by a municipality, or for the erection, construction, and location of any treatment works or intercepting sewers by a person or municipality, shall be submitted to the Board for its approval before the same are constructed or erected or acquired.
7. Provides a municipality either jointly or singly with the authority to issue non-debt revenue bonds secured solely by a pledge, in whole or in part, of the annual rentals or charges imposed for the use of such sewer, sewer system or sewage treatment works. Said bonds shall not pledge the credit, nor create any debt, nor be a charge against the general revenues, nor be a lien against any property of the municipality, but shall be a lien upon and payable solely from the annual rentals or charges for the use of the sewer, sewer system or sewage treatment works.
8. States that no person or municipality shall place or permit to be placed, or discharged or permit to flow, or continue to discharge or permit to flow, into any of the waters of the State any industrial wastes, except as hereinafter provided in this Act.
9. Provides the Board shall have the power to make a complete survey of the waters of the Commonwealth in order to ascertain the extent of pollution in each of said waters, and the remedies to be employed to purify said waters. It shall have the power to adopt, prescribe, and enforce such rules and regulations, not inconsistent with this Act, as may be deemed necessary for the protection of the purity of the waters of the Commonwealth, or parts thereof, and to purify those now polluted, and to assure the proper and practical operation and maintenance of treatment works approved by it. A violation of which rules and regulations, after notice, shall also constitute a nuisance under this Act. In addition to any powers now possessed, the Board shall investigate and ascertain, as far as practicable, all facts in relation to the pollution of the waters of the State by industrial waste.
10. Stipulates no person or municipality shall operate a mine or allow a discharge from a mine into the waters of the State unless such operation or discharge is authorized by the rules and regulations of the Board or such person or municipality has first obtained a permit from the Department. Operation of the mine shall include preparatory work in connection with the opening or reopening of a mine, backfilling, sealing, and other closing procedures, and any other work done on land or water in connection with the mine.

11. Stipulates that whenever the Sanitary Water Board finds that pollution or a danger of pollution is resulting from a condition which exists on land in the Commonwealth the Board may order the landowner or occupier to correct the condition in a manner satisfactory to the Board or it may order such owner or occupier to allow a mine operator or other person or agency of the Commonwealth access to the land to take such action.
12. Makes it unlawful for any person or municipality to put or place into any of the waters of the Commonwealth, or allow or permit to be discharged from property owned or occupied by such person or municipality into any of the waters of the Commonwealth, any substance of any kind or character resulting in pollution as herein defined. Any such discharge is hereby declared to be a nuisance.
13. States that whenever the Board finds that any activity , not otherwise requiring a permit under this Act, including but not limited to the impounding, handling, storage, transportation, processing or disposing of materials or substances, creates a danger of pollution of the waters of the State or that regulation of the activity is necessary to avoid such pollution, the Board may, by rule or regulation, require that such activity be conducted only pursuant to a permit issued by the Department or may otherwise establish the conditions under which such activity shall be conducted, or the Board may issue an order to a person or municipality regulating a particular activity.
14. Provides the Board with the authority, after due notice and public hearing, to make, adopt, promulgate, and enforce reasonable orders and regulations for the protection of any source of water, approved by the Commissioner of Health or the Department of Health, for present or future supply to the public, and prohibiting the pollution of any such source of water, so approved, rendering the same inimical or injurious to the public health or objectionable for public water supply purposes.
15. States that any person violating any of said orders and regulations of the Board, or refusing or omitting to comply with the direction or stipulation of the Secretary of Health made in accordance with said orders and regulations after 30 days' notice thereof, shall, upon conviction in a summary proceeding, be sentenced to pay a fine of not less than \$100 nor more than \$500, and, in default of the payment of such fine and costs of prosecution, the person, or if such person be an association or copartnership, then the members thereof, or if such person be a corporation, then the officers thereof, shall be imprisoned in the county jail for a period of 60 days.
16. States that a violation of the orders and regulations adopted by the Board, pursuant to section 501 of this Act, shall constitute a nuisance, and whenever such a pollution shall be maintained or continued contrary to such orders and regulations, the same may be abatable in the manner provided by this Act.

17. States that any person or municipality who violates any provision of this Act, any rule or regulation of the Department, any order of the Department, or any condition of any permit issued pursuant to this Act is guilty of a summary offense and, upon conviction, such person or municipality shall be subject to a fine of not less than \$100 nor more than \$1,000 for each separate offense, and, in default of the payment of such fine, a person shall be imprisoned for a period of 60 days.
18. States that any person or municipality who willfully or negligently violates any provision of this Act, any rule or regulation of the Department, any order of the Department, or any condition of any permit issued pursuant to the Act is guilty of a misdemeanor of the third degree and, upon conviction, shall be subject to a fine of not less than \$2,500 nor more than \$25,000 for each separate offense or to imprisonment in the county jail for a period of not more than one year, or both.
19. States that any person or municipality who, after a conviction of a misdemeanor for any violation within two years as above provided, willfully or negligently violates any provision of this Act, any rule or regulation of the Department, any order of the Department, or any condition of any permit issued pursuant to this Act is guilty of a misdemeanor of the second degree and, upon conviction, shall be subject to a fine of not less than \$2,500 nor more than \$50,000 for each separate offense or to imprisonment for a period of not more than two years, or both.
20. Stipulates that each day of continued violation of any provision of this Act, any rule or regulation of the Department, any order of the Department, or any condition of any permit issued pursuant to this Act shall constitute a separate offense.

Administrative Responsibilities:

The Department of Environmental Resources (DER) is responsible for formulating, adopting, promulgating and repealing such rules and regulations and issuing such orders as are necessary to implement the provisions of this Act; establishing policies for effective water quality control and water quality management in the State and coordinating the development and implementation of comprehensive public water supply, waste management and other water quality plans; reviewing all research programs pertaining to public water supply, water quality control and water quality management, provided however, that this section shall not be construed to limit the authority of each department to conduct research programs and operations as authorized by law; and reporting from time to time to the legislature and to the Governor on the public water supply and water quality control program; and making such inspections of public or private property as are necessary to determine compliance with the provisions of this Act, and the rules, regulations, orders or permits issued hereunder.

The Environmental Quality Board is responsible for developing an environmental plan and for promulgating rules and regulations. The Environmental Hearing Board is charged with holding hearings and issuing adjudication in accordance with the law.

An advisory board, Citizens Advisory Council, established in the DER is responsible for rendering advice to the Department and for reviewing and recommending changes in the law.

POLITICAL JURISDICTION: Pennsylvania

Title or Reference: Solid Waste Management Act, Act 241 as amended

Implementing Agency: Department of Environmental Conservation

Affected Land Use Activities: Solid waste

Purpose:

To provide for the planning and regulation of solid waste storage, collection, transportation, processing and disposal systems.

Provisions:

1. Establishes an Advisory Committee to recommend to the Secretary the adoption, amendment or appeal of necessary standards, regulations and procedures.
2. Requires each municipality with a population density of 300 or more inhabitants per square mile to submit to the Department an officially adopted plan for a solid waste management system or systems serving areas within its jurisdiction, within two years of the effective date of this section, and shall, from time to time, submit such revisions of said plan as it deems necessary or as the Department may require.
3. Stipulates that the plan be reviewed by the appropriate planning agencies.
4. Authorizes the Department to approve or disapprove plans for solid waste management systems submitted in accordance with this Act.
5. Authorizes the Department to provide technical assistance to counties, municipalities and authorities in coordinating plans for solid waste management systems required by this Act, including revisions of such plans.
6. Describes the application procedure for operation of each solid waste processing or disposal facility or area.
7. Details requirements for disposing, in mines, and transportation of solid wastes whereby:
 - a. Requiring the restoration of the landscape, including the planting of trees and shrubbery;
 - b. Requiring the posting of a bond sufficient to assure the financial responsibility of the operator, including the restoration of the area except in the case of a municipality, county or authority which is directly performing the operations.

- c. Notifying the county commissioners of each county affected by the proposed plan;
 - d. Transmitting a copy of the proposed plan to the Secretary of Commerce.
8. Stipulates no permits for transportation of solid wastes will be issued unless applicant can satisfy health and safety requirements.
9. States that no permit for dumping or depositing of any solid wastes into any mine shall be issued without the approval of the Board of County Commissioners of the county in which such mine is located.
10. Makes it unlawful for any person, municipality, county, or authority to
 - a. Dump or deposit, or permit the dumping or depositing of any solid wastes onto the surface of the ground or into the waters of the Commonwealth without having obtained a permit as required by Section 7. Provided, that this provision shall not prohibit the use of solid wastes in normal farming operations or in the processing or manufacturing of other products in a manner that will not create a public nuisance or adversely affect the public health. And, provided further, that this provision shall not prohibit individuals from dumping or depositing solid wastes resulting from their own residential activities onto the surface of ground owned or leased by them when such wastes do not thereby create a public nuisance or adversely affect the public health;
 - b. Construct, alter or operate a solid waste processing or disposal facility or area of a solid waste management system without a permit or other approval from the Department or in violation of the rules, regulations, standards or orders of the Department;
 - c. Burn solid wastes except in a manner approved by the Air Pollution Commission or the Department;
 - d. Store, collect, transport, process or dispose of solid waste contrary to the rules, regulations, standards or orders of the Department or in such a manner as to create a public nuisance;
 - e. Refuse or hinder entry and inspection by an agent or employee of the Department after such agent or employee identifies himself and gives notice of his purpose;
 - f. Transport or permit the transportation of any solid waste intended for disposal in mines without having obtained a permit as required by this Act, or contrary to the rules, regulations, standards or orders of the Department, or in such manner as to adversely effect or endanger the health, safety, environment or economy of the area of destination or of any area in Pennsylvania through which such transportation occurs;

- g. Dump or deposit or permit the dumping or depositing of any solid wastes into any mines of the Commonwealth without having obtained a permit as required by this Act, or contrary to the rules, regulations, standards or orders of the Department, or in such manner as to adversely effect or endanger the health, safety, environment or economy of the area;
- h. Transport or permit the transportation of solid waste into the Commonwealth for disposal in a mine located therein, or dump or deposit or permit the dumping or depositing into any mines of the Commonwealth, any solid waste so transported.

No person shall be held responsible under the provisions of this section for the dumping or depositing of any solid waste on ground owned or leased by him without his expressed or implied consent, permission or knowledge.

- 11. Provides municipalities with the authority to contract with any person, other municipality, county or authority to carry out their transportation, processing and disposal of solid wastes.
- 12. Provides DEC with the authority to order a municipality to alter its storage, collection or transportation system to prevent nuisances and pollution.
- 13. States that any person violating this Act or the rules, regulations or standards thereunder shall, upon conviction thereof in a summary proceeding, be sentenced to pay a fine of not more than \$300 and costs and, in default of the payment of such fine and costs, shall undergo imprisonment for not more than 30 days.

Administrative Responsibilities:

The Department of Environmental Conservation is responsible for administering the solid waste management program pursuant to the provisions of this Act; cooperating with appropriate Federal, state, interstate and local units of government and with appropriate private organizations in carrying out its duties under this Act; adopting such rules, regulations, standards and procedures as shall be necessary to conserve the air, water and land resources of the Commonwealth, protect the public health, prevent public nuisances, and enable it to carry out the purposes and provisions of this Act; developing Statewide solid waste management plans in cooperation with local governments areawide planning commissions, the Department of Community Affairs and the State Planning Board; providing technical assistance to municipalities, counties and authorities including the training of personnel; reporting to the legislature from time to time on further assistance that will be needed to administer the solid waste management program; initiating, conducting and supporting research, demonstration projects, and investigations and coordinate all State agency research programs pertaining to solid waste management systems.

Each municipality is responsible for collection, transportation, processing and disposal of solid wastes within its boundaries and shall be responsible for implementing their approved plan as it relates to the storage, collection, transportation, and disposal of their solid wastes.

In carrying out its responsibilities, any such municipality may adopt ordinances, regulations and standards for the storage and collection of solid wastes which shall be in conformity with the rules, regulations, standards and procedures adopted by the Department for the storage, collection, transportation, processing and disposal of solid waste.

To provide for the regulation of dams, or other structures or obstructions.

Provisions:

1. It shall be unlawful for any person or persons, partnership, association, corporation, county, city, borough, town or township to construct any dam or other water obstruction; or to make or construct, or permit to be made or constructed, any change therein or addition thereto, or to make, or permit to be made, any change in or addition to any existing water obstruction, or in any manner to change or diminish the course, current, or cross section of any stream or body of water, wholly or partly within, or forming a part of the boundary of, this Commonwealth, except the tidal waters of the Delaware River and of its navigable tributaries, without the consent or permit of the Water and Power Resources Board, in writing, previously obtained, upon written application to said Board therefor.

2. It shall be unlawful for an application for a permit under this section to be accompanied by incomplete maps, plans, profiles, and specifications of such obstructions and proposed changes.

3. It shall be unlawful for any person or persons, partnership, association or corporation, county, city, borough, town or township, that shall do or cause to be done, or that shall fail, neglect or refuse to do, or cause to be done, any act or thing contrary to the provisions of this Act, or that shall violate, or fail to comply with, any order of the Commission, of which due notice shall be given, or that shall violate any of the provisions of this Act, shall be guilty of a misdemeanor, and, upon conviction thereof, shall be sentenced to pay a fine of not more than \$1,000 or, in the discretion of the court, such person or persons, or the members of such partnership or association, or the officers and directors of such corporation, or the officers of such county, city, borough, town or township, as the case may be, may be sentenced to undergo an imprisonment in the county jail for a period not exceeding one year, either or both, in the discretion of the court.

POLITICAL JURISDICTION: Pennsylvania

Title or Reference: Water Obstruction Act, No. 335, P.L. 555 as amended

Implementing Agency: Department of Environmental Resources

Affected Land Use Activities: Shoreland filling, lakeshore and riverbank erosion

Purpose:

To provide for the regulation of dams, or other structures or obstructions.

Provisions:

1. Makes it unlawful for any person or persons, partnership, association, corporation, county, city, borough, town or township to construct any dam or other water obstruction; or to make or construct, or permit to be made or constructed, any change therein or addition thereto, or to make, or permit to be made, any change in or addition to any existing water obstruction; or in any manner to change or diminish the course, current, or cross section of any stream or body of water, wholly or partly within, or forming a part of the boundary of, this Commonwealth, except the tidal waters of the Delaware River and of its navigable tributaries, without the consent or permit of the Water and Power Resources Board, in writing, previously obtained, upon written application to said board therefor.
2. Stipulates that an application for a permit must be accompanied by complete maps, plans, profiles, and specifications of such obstructions and proposed changes.
3. Stipulates that any person or persons, partnership, association or corporation, county, city, borough, town, or township, that shall do or cause to be done; or that shall fail, neglect or refuse to do, or cause to be done, any act or thing contrary to the provisions of this Act; or that shall violate, or fail to comply with, any order of the Commission, of which due notice shall be given; or that shall violate any of the provisions of this Act, shall be guilty of a misdemeanor; and, upon conviction thereof, shall be sentenced to pay a fine of not more than \$1,000 or, in the discretion of the court, such person or persons, or the members of such partnership or association, or the officers and directors of such corporation, or the officers of such county, city, borough, town or township, as the case may be, may be sentenced to undergo an imprisonment in the county jail for a period not exceeding one year, either or both, in the discretion of the court.

Administrative Responsibilities:

The DER is responsible for issuing permits.

POLITICAL JURISDICTION: Pennsylvania

Title or Reference: Surface Mining and Conservation and Reclamation Act,
Act No. 418

Implementing Agency: Department of Environmental Resources

Affected Land Use Activities: Mining

Purpose:

To provide for the conservation and improvement of land affected in connection with surface mining regulating such mining; and providing penalties.

Provisions:

1. Requires that any person who intends to mine coal or to conduct an active operation to mine other minerals, by the surface mining methods as an operator within this Commonwealth, first obtain a license as a surface mining operator from the Department. Any person who proceeds to mine minerals by the surface mining method as an operator without having applied for and received a license as herein provided or in violation of the terms thereof shall be guilty of a misdemeanor, and, upon conviction, shall be sentenced to pay a fine of not less than \$5,000 or in an amount not less than the total profits derived by him as a result of his unlawful activities, as determined by the court.
2. Stipulates that the Department shall not issue any new surface mining operator's license or renew any existing surface mining operator's license to any person or operator if it finds, after investigation, that the applicant for licensure or renewal has failed and continues to fail to comply with any of the provisions of this Act.
3. Requires licensed operators to submit the following information to obtain a permit to operate:
 - a. Map and related information;
 - b. Reclamation plan -- a complete and detailed plan for the reclamation of the land affected.
4. Stipulates that upon receipt of an application, the Department shall review the same and shall make such further inquiries, inspections, or examinations as may be necessary or desirable for a proper evaluation thereof. Should the secretary object to any part of the proposal, he shall promptly notify the operator by registered mail of his objections, setting forth his reasons therefor, and shall afford the operator a reasonable opportunity to make such amendments or take such other actions

as may be required to remove the objections. No application shall be approved with respect to any operator who has failed, and continues to fail to comply with the provisions of this Act or of any act repealed or amended hereby, as applicable, or with the terms or conditions of any permit issued under "The Clean Streams Law" of June 22, 1937 (P.L. 1987), as amended, or where any claim is outstanding against any operator, or in the case of a corporate operator against any officer or director, under this Act or any act repealed or amended hereby. Should any operator be aggrieved by any action of the Secretary under this subsection, or by the failure of the Secretary to act upon his application for a permit, he may proceed to lodge an appeal with the Environmental Hearing Board in the manner provided by law, and from the adjudication of said Board he may further appeal as provided by the Administrative Agency Law.

5. States that prior to commencing surface mining, the operator shall file with the Department a bond for the land affected by each operation on a form to be prescribed and furnished by the Department, payable to the Commonwealth and conditioned that the operator shall faithfully perform all of the requirements of this Act and of the Act of June 22, 1937 (P.L. 1987), known as "The Clean Streams Law."
6. Requires that within 90 days after commencement of surface mining operations and each 90 days thereafter unless modified or waived by the Department for cause, the operator shall file in triplicate an operations and progress report with the Department.
7. Stipulates that if the operator fails or refuses to comply with the requirements of the Act in any respect for which liability has been charged on the bond, the Secretary shall declare such portion of the bond forfeited, and shall certify the same to the Department of Justice, which shall proceed to enforce and collect the amount of liability.
8. Authorizes any mine conservation inspector with the right to enter upon and inspect all surface mining operations for the purpose of determining conditions of health or safety and for compliance with the provisions of this Act.
9. Establishes mine land and water conservation districts. Each district shall have a mine inspector. The inspectors shall be appointed by the governor from among persons holding valid unexpired certificates of qualification issued by the Department under this Act and each mine conservation inspector shall hold office during good behavior or until removed from office as herein provided.
10. States that all funds received by the Secretary from license fees and from forfeiture of bonds, and of cash deposits and securities, shall be held by the State Treasurer in a special fund, separate and apart from all other monies in the State Treasury, to be known as the "Surface Mining

Conservation and Reclamation Fund," and shall be used by the Secretary for the purpose of the foresting or reclaiming of land affected by surface mining of any coal or metallic and nonmetallic minerals, or for any other conservation purposes provided by this Act, and for such purposes are hereby specifically appropriated to the Department. Funds received from the forfeiture of bonds and collateral shall, if physically possible, be expended by the Secretary for reclaiming and planting the area of land affected by the operation upon which liability was charged on the bond.

Administrative Responsibilities:

The Department of Environmental Resources, Division of Mine Drainage Control and Reclamation is responsible for reviewing and approving mine operating permits. The Department is also charged with issuing licenses for surface mining operators. Mine conservation inspectors appointed by the governor are responsible for inspecting and keeping a record with regard to each mine operating in his district.

POLITICAL JURISDICTION: Pennsylvania

Title or Reference: Land and Water Conservation Act, Act No. 443, P.L. 996

Implementing Agency: Department of Health, DER, Department of Community Affairs

Affected Land Use Activities: Forestry, mining, solid waste

Purpose:

To authorize funds for prevention, control and elimination of stream pollution from mine drainage; the prevention, control and elimination of air pollution from burning coal refuse banks; the restoration of abandoned strip mine areas; the control and extinguishment of surface and underground fires in abandoned mines, and the alleviation and prevention of subsidence above abandoned mine operations are urgent matters requiring action by the Commonwealth of Pennsylvania not only for conservation purposes but for the protection of the health and welfare of citizens of the Commonwealth, especially those living in or adjacent to affected areas.

Provisions:

1. Authorizes \$500,000,000 for a Land and Water Conservation and Reclamation Fund to be used for conservation and reclamation of land and water resources in the State.
2. Authorizes bonds to be issued to carry out purposes of the Act.
3. Specifies that the monies received by the Commonwealth from the issuance and sale of bonds and notes pursuant to this Act when appropriated by the General Assembly from the development fund shall be allotted for the following specific purposes:
 - a. To the Department of Mines and Mineral Industries the sum of \$200,000,000 for the elimination of land and water scars created by past coal mining practices, \$150,000,000 of which shall be used for the prevention, control and elimination of stream pollution from mine drainage and may include the restoration of abandoned strip mine areas, \$25,000,000 of which shall be used for the prevention, control and elimination of air pollution from abandoned burning coal refuse banks provided such land and bank material is publicly owned, and \$25,000,000 of which shall be used for the prevention of surface subsidence above abandoned mine operations, for the control and extinguishment of surface and underground fires from abandoned mines and for administration expenses attendant thereto;
 - b. To the Department of Health the use of \$100,000,000 for State aid to political subdivisions and municipal authorities for the construction, reconstruction and improvement of municipal sewage treatment plants;

- c. To the Department of Forests and Waters, Fish and Game Commissions and Historical and Museum Commissions, the sum of \$125,000,000 for the cost of planning, related administrative expenses and development of public outdoor recreation areas including lands acquired with Project 70 funds. Projects to be planned and developed shall be submitted to the State Planning Board for its review and recommendations prior to final approval by the governor. Upon receipt of stipulated approvals, the Department or Commission concerned shall proceed in the manner provided by applicable provisions of law which may govern the planning and development of State lands. Whenever lands to be planned and developed as public outdoor recreation areas have landmarks, sites, or structures of historical significance on them, the Historical and Museum Commission shall be consulted relative to the need for, and the appropriate development of, said historical features. The Department or Commission concerned shall have the power to promulgate such rules and regulations as may be necessary to effectuate the development program undertaken. The allocation of \$125,000,000 shall be apportioned among the aforesaid department and commissions by the governor;
 - d. To the Department of Community Affairs, the sum of \$75,000,000 for State grants-in-aid to political subdivisions to pay up to 50% of the cost: (i) of development of county and municipal park and recreation lands including lands acquired under the Act of June 22, 1964 (P.L. 131), known as the "Project 70 Land Acquisition and Borrowing Act," to be used for county and municipal park and recreation purposes; (ii) to acquire and develop additional county and municipal park, recreation and open space lands in those regions where the Statewide outdoor recreation, plan indicates a need for those lands; and (iii) for studies conducted to determine park and recreational needs and the location of facilities.
4. Allows the respective departments and commissions to cooperate and expend funds jointly on land and water reclamation projects where the objects of such projects can be better achieved, where economics may be obtained by such cooperation and joint action or in other instances where joint action is determined to be in the public interest.

Administrative Responsibilities:

The respective agencies are responsible for conducting projects in compliance with the provisions of the Act.

POLITICAL JURISDICTION: Pennsylvania

Title or Reference: Pennsylvania Sewage Facilities Act, Act No. 537

Implementing Agency: Department of Environmental Resources, Environmental Hearing Board, Environmental Quality Board

Affected Land Use Activities: Solid Wastes, Private Sewage Disposal

Purpose:

To plan for and regulate community sewage systems and individual sewage systems.

Provisions:

1. Establishes an advisory community for the purpose of reviewing existing proposed rules, regulations, and standards.
2. Requires each municipality to submit to the Department an officially adopted plan for sewage services for areas within its jurisdiction within such reasonable period as the Department may prescribe. The required plan or any revision thereof may be submitted jointly by two or more municipalities.
3. Stipulates that every official plan shall:
 - a. delineate areas in which community sewage systems are now in existence, areas experiencing problems with sewage disposal, areas where community sewage systems are not planned to be available within a ten-year period, and all subdivisions existing or approved;
 - b. provide for the orderly extension of community interceptor sewers in a manner consistent with the comprehensive plans and needs of the whole area;
 - c. provide for adequate sewage treatment facilities which will prevent the discharge of untreated or inadequately treated sewage or other waste into any waters or otherwise provide for the safe and sanitary treatment of sewage or other waste;
 - d. take into consideration all aspects of planning, zoning, population estimates, engineering and economics;
 - e. take into consideration any existing State plan affecting the development, use, and protection of water and other natural resources;

- f. Establish procedures for delineating and acquiring, on a time schedule consistent with that established in clause (4) of this section, necessary rights-of-way or easements for community sewage systems;
 - g. Set forth a time schedule and proposed methods of financing the construction and operation of the planned community sewage systems, together with the estimated cost thereof;
 - h. Be reviewed by appropriate official planning agencies within a municipality, including a planning agency with areawide jurisdiction if one exists;
 - i. Designate municipal responsibility for implementation of the plan.
4. Specifies that no person shall install, construct, or request bid proposals for construction, or alter an individual sewage system or community sewage system or construction, or request bid proposals for construction, or install or occupy any building or structure for which an individual sewage system or community sewage system is to be installed without first obtaining a permit indicating that the site and the plans and specifications of such system are in compliance with the provisions of this Act and the standards adopted pursuant to this Act.
 5. Creates, within the Department, a State Board for Certification of Sewage Enforcement Officers responsible for administering and reviewing the examinations.
 6. Authorizes the Department to administer grants to counties, municipalities, and authorities to assist them in preparing official plans and revisions to official plans for sewage systems required by this Act, and for carrying out related studies, surveys, investigations, inquiries, research and analyses.

Administrative Responsibilities:

A county or joint county departments of health are charged with administering portions of the Act wherepower is delegated to the local agency - i.e., issuing permits, enforcing the Act. The Environmental Quality Board has the power to make such rules and regulations of the Department, applicable throughout the Commonwealth. Such rules and regulations shall establish standards for the construction, installation, alteration, maintenance and operation of individual sewage systems and community sewage systems and of sewage treatment plants in such systems, take cognizance of latest technological developments in the field of individual sewage systems, including adoption of standards providing for use of alternate individual sewage systems, standards for enforcement programs of local agencies and for the certification of personnel employed by local agencies to administer the provisions of this Act, standards for the preparation, review and acceptance of official plans, and requirements for the disbursement of State and Federal funds to municipalities and local agencies for planning, personnel and construction of sewage disposal systems.

The Department of Environmental Resources is responsible for ordering municipalities to submit official plans and revisions thereto within such time and under such conditions as the rules and regulations promulgated under this Act may provide; approving or disapproving official plans and revisions thereto; ordering the implementation of official plans and revisions thereto; administering grants and reimbursements to local agencies; reviewing the performance of local agencies; cooperating with local agencies, the advisory committee and industry in studying and evaluating new methods of sewage disposal; ordering a local agency to undertake actions deemed necessary by the Department; entering upon lands and making inspections and requiring the submission of papers, books and records by local agencies for the purposes set forth in this Act; training sewage enforcement officers; revoking or suspending the certification of sewage enforcement officers for cause, or reinstating same, in accordance with the rules and regulations of the Department.

POLITICAL JURISDICTION: Pennsylvania

Title or Reference: Pesticide Control Act of 1974, Regulations Chapter 29,
Pesticide Control Provisions

Implementing Agency: Secretary of Agriculture

Affected Land Use Activities: Pesticide application

Purpose:

To regulate, in the public interest, the labelling, distribution, storage, transportation, use, application, and disposal of pesticides.

Provisions:

1. Requires every pesticide distributed in the State to be licensed.
2. Provides the Secretary with the authority to revoke or suspend the registration of a pesticide if its labelling does not comply with the provisions of the Act or if he has reason to believe a pesticide or device is being used which does not comply.
3. Prohibits any person who acts in the capacity of a pesticide dealer who sells pesticides which are classified for restricted use to advertise as, or assume to act as a pesticide dealer at any time without first having obtained an annual license from the Secretary.
4. Makes each pesticide dealer responsible for the acts of each person employed by him in the solicitation and sale of pesticides and all claims and recommendations for use of pesticides. The dealer's license shall be subject to denial, suspension, or revocation after a hearing for any violation of this Act whether committed by the dealer, or by the dealer's office, agent or employee.
5. Prohibits any individual from performing as a pest management consultant for a fee without first obtaining from the Secretary an annual license which shall expire on December 31 of each year.
6. Empowers the Secretary to classify licenses to be issued under this Act. Such classification may include but not be limited to the classification of commercial applicators of pesticides as provided in the regulations promulgated under Section 4 of the "Federal Insecticide, Fungicide and Rodenticide Act of 1947," as amended in 1972. Separate classifications may be specified as to ground, aerial, or manual methods used by any licensee to apply pesticides or to the use of pesticides to control insects and plant diseases, rodents, or weeds. Each classification shall be subject to separate testing procedures and requirements. Provided, that no person shall be required to pay an additional license fee if such person desires to be licensed in one or all of the license classifications provided for by the Secretary under the authority of this Section.

7. Prohibits any person from engaging in the business of applying pesticides classified for restricted use to the lands of another at any time without a commercial applicator's license issued by the Secretary. The Secretary shall require an annual fee of \$30 for each pesticide applicator's license issued and shall have the authority to promulgate rules and regulations relating to:
 - a. Applicators license;
 - b. Examination requirement for obtaining an applicator's license;
 - c. Classification of licenses;
 - d. Methods for renewals of applicator's licenses.
8. Prohibits private applicators from the use of any pesticides classified for restricted use without that private applicator first complying with the certification requirements determined by the Secretary as necessary to prevent unreasonable adverse effects on the environment.
9. Requires public operators for agencies to be licensed and that license shall only apply when such operator is acting in behalf of the government.
10. Stipulates that the Secretary shall not issue a commercial applicator's license until the applicant has furnished evidence of financial responsibility with the Secretary protecting persons who may suffer legal damages as a result of the operations of the applicant.
11. Creates the Pesticide Advisory Board.
12. Allows for any person aggrieved by any action of the Secretary to obtain a review thereof by filing an appeal therefrom in the Commonwealth Court within 30 days of issuance of notice of the action.
13. Stipulates that any person engaging in unlawful conduct as set forth in this Act, upon conviction thereof in a summary proceeding, may be sentenced to pay a fine of not more than \$300 or to undergo imprisonment for a term which shall be fixed at not more than 90 days or both. Any person, other than a private applicator, who, within 3 years after being convicted of an offense pursuant to this Section, engages in similar unlawful conduct, or who violates any provision of the this Act after such person was issued a written warning by the Secretary pursuant to the provisions of this Act, shall be guilty of a misdemeanor of the second degree and, upon conviction thereof, may be sentenced to pay a fine of not more than \$5,000 or imprisonment for a term that shall be fixed at not more than 2 years, or both. Any person who, being a private applicator, within 3 years after being convicted of an offense pursuant to this Section, engages in similar unlawful conduct, or who violates any provision of this Act after such person was issued a written warning by the Secretary pursuant to the

provisions of this Act, shall be guilty of a misdemeanor of the third degree and upon conviction thereof, may be sentenced to pay a fine of not more than \$2,500 or imprisonment for a term that shall be fixed at not more than 1 year, or both. The civil penalty so assessed shall not exceed \$10,000.

14. Authorizes the Secretary to enter upon any public or private premises at reasonable times, in order to sample and examine pesticides or devices on the distributors premises, including any vehicle of transport, for the purpose of determining whether they comply with the requirements of this Act.
15. Authorizes the Secretary to cooperate, receive grants-in-aid and enter into agreements with any agency private or public of the Federal government, of this Commonwealth or with any agency of another State.
16. Requires any person licensed under the Act to keep records.
17. Classifies pesticides as either "general use" or "restricted use" pesticides.
18. Details standards and procedures for certification of licensed commercial applicators.
19. Details the procedures for obtaining a permit for a private applicator.
20. Details procedures for licensing pesticide dealers and pest management consultants.
21. Details procedures for registering pesticides.

Administrative Responsibilities:

The Pesticide Advisory Board is responsible for advising the Secretary of the Department of Agriculture on any or all problems relating to the use and application of pesticides. The Secretary of the Department of Agriculture is responsible for promulgating all necessary rules and regulations; classifying commercial applicators; reviewing and approving certification of applicators; issuing permits; registering pesticides; and enforcing all provisions of the Act.

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THE LEGISLATIVE AND INSTITUTIONAL FRAMEWORK
TO CONTROL POLLUTION FROM LAND USE ACTIVITIES IN
THE UNITED STATES GREAT LAKES BASIN

PART I - PROBLEMS, CURRENT AND FUTURE
THE STATE OF WISCONSIN

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IN SUBCONTRACT TO
GREAT LAKES BASIN COMMISSION
ANN ARBOR, MICHIGAN

To be used as a portion of the technical reports
of the International Reference Group on
GREAT LAKES POLLUTION FROM LAND USE ACTIVITIES
of the International Joint Commission --
Prepared in partial fulfillment of the
U. S. Environmental Protection Agency
Contract No. 68-01-1598
with the Great Lakes Basin Commission

June 1977

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ACKNOWLEDGEMENTS

This report was prepared by Linton & Company, Inc. under contract to the Great Lakes Basin Commission. Linton & Company would like to acknowledge the assistance of the following individuals in the preparation of the report:

Dr. John Konrad, Wisconsin Department of Natural Resources
Dr. David Hallett, Wisconsin Department of Natural Resources
Mr. Jerry Rodenberg, Wisconsin Department of Natural Resources
Mr. James H. Puriton, Wisconsin Coastal Zone Management Program
Professor Carl Runge, Water Resources Center, University of Wisconsin
Mr. James Bowman, Wisconsin Department of Natural Resources
Mr. Lyman Wible, Southeastern Wisconsin Regional Planning Commission

This study was carried out as part of the Task A activities of the Pollution From Land Use Activities Reference Group, an organization of the International Joint Commission, established under the Canada/United States Great Lakes Water Quality Agreement of 1972. The Technical Representative for the study was Eugene A. Jarecki, Great Lakes Basin Commission. Findings and conclusions are those of the authors Eric Schweitzer and Barbara Roth, Linton & Company and do not necessarily reflect the views of the Reference Group or its recommendations to the Commission.

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1.1 GENERAL (After the Chapter 1 and 2, State of New York, pages 1-2)

PART I

This Chapter
framework for
1.2 identifies
presents brief

PROBLEMS, CURRENT ACTIVITY, EVALUATION

Section 1.2
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1.2 INSTITUTIONS

Different
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government,

AGENCIES

- Department of
- Department of
- Division
- Department of
- Department of
- State Soil
- Board
- Coastal Control
- Council
- State Water
- Committee

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CHAPTER 3

INSTITUTIONAL AND LEGISLATIVE FRAMEWORK

3.1 GENERAL

This Chapter presents the institutional structure and the legislative framework for non-point pollution control in the State of Wisconsin. Section 3.2 identifies the institutions involved in non-point pollution control and presents brief descriptions of the key institutions.

Section 3.3 presents the legislative framework in matrix form, followed by a discussion of the magnitude of the problem, current controls, and evaluation of the controls and their implementation.

3.2 INSTITUTIONAL STRUCTURE

Different State and substate agencies share pollution control responsibilities in Wisconsin. Table 1 presents those agencies for each level of government. An Asterisk (*) indicates the key governmental units.

TABLE I

AGENCIES WITH NON-POINT POLLUTION CONTROL RESPONSIBILITIES

STATE	SUBSTATE
*Department of Natural Resources	*Cities
Department of Health and Social Services	*Villages
Department of Transportation	*Towns
Department of Agriculture	*Counties
State Soil and Water Conservation Board	Town Sanitary Districts
Coastal Coordinating and Advisory Council	Joint Sewerage Commissions
*State Water Quality Advisory Committee	*Metropolitan Sewerage Districts
	*Soil and Water Conservation Districts
	*Public Inland Lake Protection and Rehabilitation Districts
	County Drainage Boards and Drainage Districts
	Regional Planning Commissions

Descriptions of the key State and substate governmental units follow:

3.2.1 Department of Natural Resources

The Department of Natural Resources (DNR) is the prime State agency involved in the control of non-point pollution. It is divided into four divisions and six district field offices. Figures 1 and 2 present the structure. The key bureaus and sections of the DNR which are concerned with non-point pollution are:¹

- Division of Environmental Standards:
 - Bureau of Water Quality
 - Water Quality Planning Section
 - Special Studies Section
 - Bureau of Air Pollution Control and Solid Waste Management
- Division of Enforcement
 - Bureau of Law Enforcement
 - Bureau of Water Regulation and Zoning
 - Water Regulation Section
 - Flood Plain-Shoreland Management Section

The remainder of this section will present a brief description of each of these units.

3.2.1.1 Division of Environmental Standards

The Division is responsible for establishing and enforcing standards which are intended to maintain and improve the quality of the environment of the State.

Bureau of Air Pollution Control and Solid Waste Management

The Bureau develops and administers standards for solid waste management, including licensing of solid waste disposal sites and facilities, such as municipal, industrial and agricultural land disposal sites; incinerators; transfer stations; collection and transportation facilities; processing facilities; etc. It provides technical assistance, education, and information dissemination in regard to solid waste management. It reviews and approves county solid waste management plans.²

Bureau of Water Quality: Water Planning Section

The section is responsible for developing and coordinating Wisconsin's continuing planning process for water quality management. The planning process develops the water quality management plans for Wisconsin which means coordinating and integrating point and non-point sources of pollution management programs.³ The 208 program function is outlined below:

Advisory Committees

Task Force Policy Advisory Committees. These committees advise on all aspects of the water quality management programs for basins experiencing complex water quality problems and work with the DNR Task Forces in the districts to provide the local perspective on management proposals.

Area Policy Advisory Committees. These committees provide the local perspective in the formulation of water quality management plans for the three areas experiencing noncomplex water quality problems. All proposed alternatives will be screened by these committees.

Special Committee on Public Participation for Water Quality Planning. This committee is responsible for designing and assisting in the monitoring and reporting on the public participation program. This program provides basic information and feedback on the water quality management program across the State.

Statewide Water Quality Advisory Committee. This committee is responsible for ensuring that the planning effort reflects, and is coordinated with, the policies of other State agencies. It also is required to monitor the total planning effort to ensure that a relatively uniform level of planning is accomplished across the State, and that adequate standards, as well as management programs, are being adopted. It advises all water quality planning agencies, State, as well as regional, on concerns of a Statewide nature. Members of this committee are ex-officio members of the Task Force and Area Policy Advisory Committees.

Plan Preparation

Designated Areas. In these areas, the designated agency is primarily responsible for assembling the plans in cooperation with the Department.

Task Force Basins. The district Task Force is primarily responsible for assembling the plan in cooperation with the central office in nondesignated complex water quality problem areas.

Non-Complex Water Quality Planning Areas. The central office is primarily responsible for assembling the plan in cooperation with the district for these areas.

Internal Coordination

The responsibility for overseeing the entire Water Quality Management planning process and advising the Department's Water Quality Management Committee, the Administration, and the Board lies with the WQM Program Coordinator. This person has overall responsibility for organizing, coordinating, and overseeing the total water quality management planning program.

Review and Approval

DNR Water Quality Management Committee. This Committee is responsible for providing technical review and recommendations on all areawide water quality planning proposals and programs. These recommendations are made to the DNR Board and Administration. This committee is composed of the responsible supervisors from each of the affected bureaus and sections in the Department.

Management Committee. This Committee is assisted in its function by the DNR Technical Review Workgroup, which is composed of representatives from each of the affected bureaus and sections in the Department.

DNR Board and Administration. The final review and approval responsibilities rest with the Departmental Administration and Board.

Certification and Designation

The responsibility for certifying WQM plans, identifying complex water quality problem areas, and designating areawide planning agencies rests with the Governor.

Special Studies Section. This section has responsibility for developing the non-point source pollution management program. The main activities of this program are:

1. Problem Assessment
2. Remedial Measures-Best Management Practices
3. The legal and Institutional management considerations.

This program is being undertaken in cooperation with a number of different projects.

1. These efforts are undertaken in cooperation with Menomonie River Project (IJC), Washington County Project, Red Clay Project, White Clay Lake Project, DNR District Small water shed studies, 2% Land Inventory

of Erosion potential (SWCD and SCS), SWCD water quality assessment of perceived problems.

Agencies involved in these projects include the State Board of Soil and Water Conservation Districts, University of Wisconsin Extension, U.S. Geological Survey, U.S. Soil Conservation Service.

2. The identification of remedial actions is taking place in cooperation with U.S. Soil Conservation Service, State Board of Soil and Water Conservation Districts, Local Soil and Water Conservation Districts.
3. The program related to the legal and institutional mechanisms is taking place in cooperation with the Washington County Project, the State Board of Soil and Water Conservation Districts and the University of Wisconsin Extension.

The section is also involved in the public information and involvement program working with the 208 program committees as well as direct involvement of SWCD supervisors and county agency personnel.

3.2.1.2 Division of Enforcement

The Division is responsible for the enforcement of the environmental laws in Wisconsin Statutes and Administrative Codes.⁴

Bureau of Law Enforcement

The Bureau of Law Enforcement is responsible for planning and coordinating the enforcement of laws and regulations relative to the protection, management and use of Wisconsin's natural resources, including game and fish law enforcement, water rights, boating and snowmobile law enforcement, and safety training and education.⁵

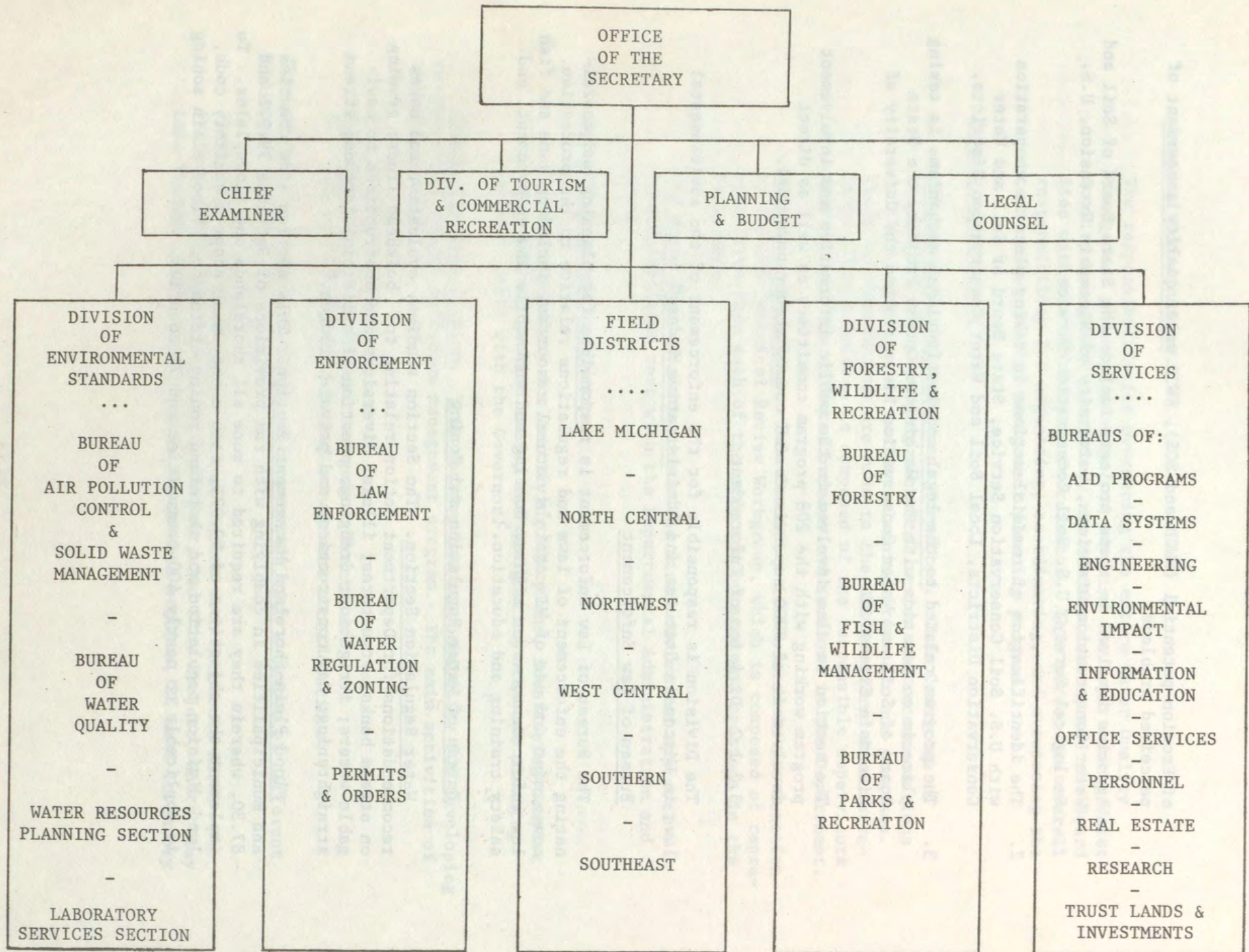
Bureau of Water Regulation and Zoning

Water Regulation Section. The Section studies, evaluates, and makes recommendations for Department action relating to: bulkhead lines; grading on stream banks; structures; illegal diversions and obstructions to navigable waters; irrigation; dredging; creation of artificial lagoons; stream straightening; dam construction; and private bridges.⁶

Flood Plain-Shoreland Management Section. This section aids counties and municipalities in complying with the provisions of Sections 59.971 and 87.30, wherein they are required to zone all shorelands and floodplains. To implement the objectives of 59.971, each county must adopt a sanitary code, land division regulation and shoreland zoning ordinance. Flood plain zoning is applicable to nearly 400 communities and 71 counties.

FIGURE 1

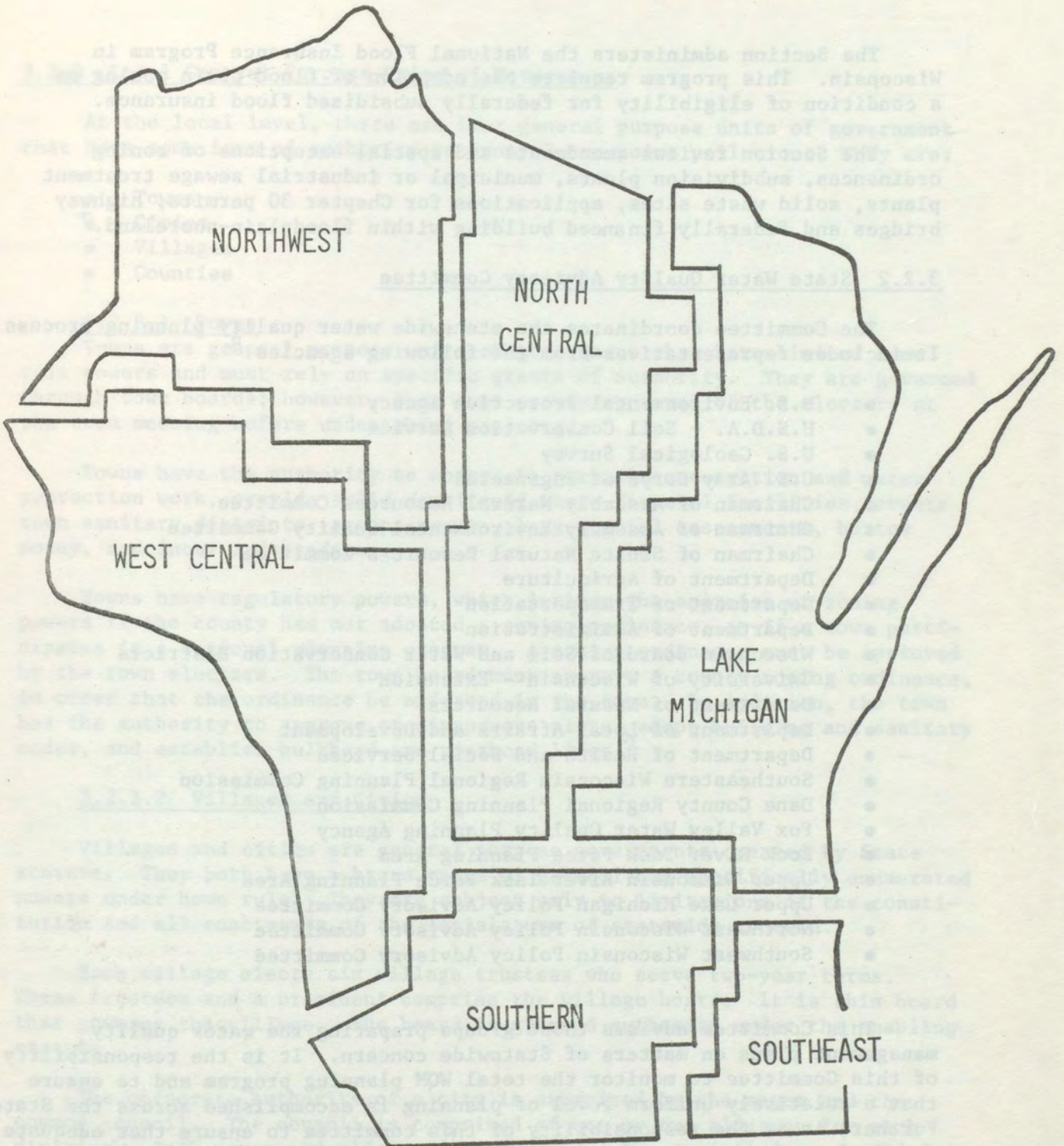
ORGANIZATION OF THE DEPARTMENT OF NATURAL RESOURCES



14

Source: Wisconsin Department of Natural Resources

FIGURE 2



DISTRICTS OF THE DEPARTMENT OF NATURAL RESOURCES

Source: Department of Natural Resources

The Section administers the National Flood Insurance Program in Wisconsin. This program requires the adoption of flood plain zoning as a condition of eligibility for federally subsidized flood insurance.

The Section reviews amendments and special exceptions of zoning ordinances, subdivision plans, municipal or industrial sewage treatment plants, solid waste sites, applications for Chapter 30 permits, highway bridges and federally financed building within floodplain-shoreland.⁷

3.2.2 State Water Quality Advisory Committee

The Committee coordinates the statewide water quality planning process. It includes representatives from the following agencies:⁸

- U.S. Environmental Protection Agency
- U.S.D.A. - Soil Conservation Service
- U.S. Geological Survey
- U.S. Army Corps of Engineers
- Chairman of Assembly Natural Resources Committee
- Chairman of Assembly Environmental Quality Committee
- Chairman of Senate Natural Resources Committee
- Department of Agriculture
- Department of Transportation
- Department of Administration
- Wisconsin Board of Soil and Water Conservation Districts
- University of Wisconsin - Extension
- Department of Natural Resources
- Department of Local Affairs and Development
- Department of Health and Social Services
- Southeastern Wisconsin Regional Planning Commission
- Dane County Regional Planning Commission
- Fox Valley Water Quality Planning Agency
- Rock River Task Force Planning Area
- Upper Wisconsin River Task Force Planning Area
- Upper Lake Michigan Policy Advisory Committee
- Northwest Wisconsin Policy Advisory Committee
- Southwest Wisconsin Policy Advisory Committee

This Committee advises those groups preparing the water quality management plans on matters of Statewide concern. It is the responsibility of this Committee to monitor the total WQM planning program and to ensure that a relatively uniform level of planning is accomplished across the State. Further, it is the responsibility of this committee to ensure that adequate standards and management programs are developed and implemented. Members of this Committee serve as ex-officio members on each of the five State Policy Advisory Committees.

3.2.3 Local General Purpose Units of Government

At the local level, there are four general purpose units of government that have some form of authority to control non-point pollution. They are:

- Towns
- Cities
- Villages
- Counties

3.2.3.1 Towns

Towns are general purpose units of government that have limited home rule powers and must rely on specific grants of authority. They are governed through town boards; however, they must secure approval of the electors at the town meeting before undertaking projects.

Towns have the authority to engage in natural conservation and water protection work, provide solid and liquid waste disposal facilities, create town sanitary districts, accept grants, levy special assessments, borrow money, and incur indebtedness.

Towns have regulatory powers, which include the exercise of zoning powers if the county has not adopted a zoning ordinance, or if a town participates in a regional planning program. A zoning ordinance must be approved by the town electors. The town board must approve a county zoning ordinance, in order that the ordinance be enforced in the town. In addition, the town has the authority to approve or disapprove plats, adopt building and sanitary codes, and establish bulkhead and pierhead lines.⁹

3.2.3.2 Villages and Cities

Villages and cities are general purpose governments created by State statute. They both have a broad range of general and specifically enumerated powers under home rule. They are subject only to limitations of the constitution and all enactments of the legislature of statewide concern.

Each village elects six village trustees who serve two-year terms. These trustees and a president comprise the village board. It is this board that governs the village. The board is granted authority under the enabling statute.

The corporate authority of a city is exercised by the mayor and the common council. The council is comprised of one or two aldermen for each district. Both mayor and aldermen are elected. The council is authorized to exercise the broad authority given to the city.

Under State statute, both villages and cities have planning and regulatory powers. They are required to adopt a master plan, zoning ordinances, and a building code and regulations in accordance with those plans. Villages also have extraterritorial power to regulate, subject to town board approval, garbage and refuse disposal sites in the unincorporated area within one mile of their boundaries.

In addition, villages and cities are required to enact and enforce reasonable shoreland and flood plain zoning ordinances. They also have the power to approve or disapprove plats for subdivision of land and adopt regulations which cover the subdivision of land. They may also use their power to control filling and other alterations to navigable waters.

Furthermore, both cities and villages have authority to accept grants for water protection, levy taxes and special assessments, incur indebtedness, and borrow money.¹⁰

3.2.3.3 Counties

Counties are general purpose governments which exercise authority primarily in unincorporated areas of the State. They do not have home rule power; consequently, they are limited to exercising those powers which are specifically conferred upon them by statute or are necessarily implied in the statute. They are delegated authority under Wisconsin Constitution, Article IV, Section 22.

Each county is governed by a county board, and it is this board that exercises the powers delegated the county. Each county board is composed of a supervisor elected for two-year terms. The number of supervisors varies by the population of the county.

All county boards have the authority to construct, acquire, lease, improve, and equip facilities and properties for sewage disposal plants and systems.

Counties are empowered to adopt a county development plan which identifies goals and objectives for land use, drainage and waste disposal and measures for reducing and preventing stream and lake pollution, etc. They may also adopt a regional plan for the subdivision of unincorporated land in the county and for the location and improvement of highways and parkways.

Counties, additionally, have the power to adopt and implement zoning ordinances and subdivision regulations for their unincorporated areas. A county ordinance does not become effective unless approved by the town board. They are also required to adopt shoreland and flood plain zoning ordinances for all lands in their unincorporated areas. Counties are authorized to adopt building and sanitary codes.

Counties have the authority to accept grants and may use tax and special assessment revenues for projects.¹¹

3.2.4 Special Purpose Districts

Under the Wisconsin State Statute, there are six special-purpose units of government which have the authority to control non-point source pollution. They are:

- Town Sanitary Districts
- Joint Sewerage Commissions
- Metropolitan Sewerage Districts
- Soil and Water Conservation Districts
- Public Inland Lake Protection and Rehabilitation Districts
- County Drainage Boards and Drainage Districts

3.2.4.1 Town Sanitary Districts

Town sanitary districts are special purpose units of government which provide sanitary sewerage and industrial waste collection, treatment and disposal services, storm sewers, refuse disposal, and chemical treatment of algae, weeds, and other aquatic nuisances. Most of the district's powers are derived from Sections 60.30-60.316 of the Wisconsin State Statutes, which were created by Chapter 12 of the Laws of 1935.

A town board has the authority to create a town sanitary district upon receipt of a petition requesting establishment of the district. The petition must be signed by at least 51 percent of the landowners or the owners of at least 51 percent of the land within the proposed district.

TSD's are only authorized to deal with stormwater by providing storm sewers; they are not authorized to treat, recycle, or dispose of stormwater in other ways. With regard to solid waste, TSD's are only empowered to provide garbage or refuse disposal, rather than solid waste management.

In addition, TSD's have the power to plan, construct, acquire, and make rules for storm sewers and refuse disposal facilities.¹²

3.2.4.2 Metropolitan Sewerage Districts

Metropolitan Sewerage Districts are special purpose units of government created to provide sewage and industrial waste collection, treatment and disposal services. MSD's derive their power from Sections 66.20-66.26 of the Wisconsin State Statutes, which were originally created by Chapter 442 of the Laws of 1927.

These Statutes provide the authority for any municipality to initiate proceedings for the formation of a metropolitan sewage district. The DNR may approve or deny a municipality's request to create a district. A district having a territory of a single county is governed by a five-member commission appointed for staggered five-year terms by the county board.

MSD's have the authority to construct, operate and maintain municipal waste treatment works. They have the authority to plan, construct, and maintain stormwater facilities.

MSD's only have the authority to manage solid waste if the county involved approves. This includes the adoption and enforcement of ordinances necessary to implement solid waste management systems and the collection and disposal of stormwater.¹³

3.2.4.3 Joint Sewerage Commissions

Joint sewerage commissions are general purpose units of government created to plan, construct, and administer sewerage facilities, owned by two or more units of government. They may also provide storm sewers and solid waste disposal facilities and services. Joint treatment of sewage may arise from a Department of Natural Resources order or from a voluntary agreement among the governmental units. One of the governmental units may own and operate the facility.

Joint sewage commissions have the authority to own, operate, and maintain sewage facilities, storm sewers, and solid waste disposal or recycling facilities. They do not have the authority to deal with manure or other agricultural wastes under their solid waste powers. In addition, joint sewage commissions have the authority to raise revenues, incur indebtedness, and accept grants.¹⁴

3.2.4.4 Soil and Water Conservation Districts

Soil and water conservation districts (SWCD's) are special purpose units of government responsible for soil resources conservation, water resources conservation and development, and flood and sediment damage prevention. The local districts are guided and coordinated by the State Board of Soil and Water Conservation Districts.

Each county board of supervisors may create an SWCD by adopting a resolution declaring their county an SWCD. These resolutions may be adopted at a board meeting. Members of the agriculture and extension committee of the county board serve as the supervisors of the SWCD.

SWCD's are granted authority to develop plans for the conservation of soil, water, and related resources. They may construct works of improvement and carry out preventive and control measures for flood prevention. SWCD's may provide technical assistance to cities and villages with regard to developing plans to control erosion, runoff, and sedimentation.

In addition, SWCD's may propose land use regulations in part or all of the unincorporated areas of the county. These regulations must be adopted by the county in order to be enforceable.

SWCD's are allowed to accept gifts and borrow money.¹⁵

3.2.4.5 Public Inland Lake Protection and Rehabilitation Districts

Districts may be formed under the law for the purpose of undertaking programs for the protection and rehabilitation of public inland lakes. "Public inland lakes" which are covered by the act and eligible for State financial assistance are defined as those lakes, reservoirs, or flowages within the boundaries of the State which have public access [Section 33.01(8),

Wisconsin Statutes]. In order to be eligible to form a lake district, the access need not be developed with docking, launching, or parking facilities. If a public user can reach the lake without trespassing on private land, the lake is a public inland lake [Sec. 33.01(8)].

When organized, a lake protection and rehabilitation district is a body incorporated for the purpose of carrying out its special governmental functions[Sec. 33.22(1)]:

Any district organized under this chapter may sue and be sued, make contracts, accept gifts, purchase, lease, devise or otherwise acquire, hold money, contract debt and do such other acts as are necessary to carry out a program of lake protection and rehabilitation.

These general powers are designed to enable the district to implement lake protection and rehabilitation programs which include, but are not limited to, the following:

- Study of the sources of lake problems
- Treatment of aquatic weeds
- Treatment of algae
- Treatment of swimmer's itch
- Aeration
- Nutrient diversion
- Erosion control
- Dredging
- Bottom Treatment
- Construction and operation of water level control structures

The district does not have zoning power on either the land or the water, but may ask counties, towns, cities and villages to enact needed ordinances or any other measures necessary to improve and protect the conditions of public inland lakes.

Under the amended provisions of Chapter 33, a lake district can assume some or all of the powers of sanitary districts. These include responsibility for:

- Storm water sewer systems
- Drainage improvements
- Sanitary sewer systems
- Waterworks
- Garbage or refuse disposal
- Installation of private sewage systems
- Rules, regulations, and orders to promote and preserve public sanitation

A lake district can assume these powers only if they are requested at the annual meeting or if a sanitary district is converted to a lake district. All such assumptions of sanitary district powers requires town board approval.¹⁶

3.2.4.6 County Drainage Boards and Drainage Districts

County drainage boards and the drainage districts under their jurisdiction are special purpose units of government created primarily to promote drainage of wet agricultural land. Drainage Districts derive most of their authority from Chapter 88 of the State Statutes.

The Statute states that, to create a new drainage district under Chapter 88, the owners of more than half the land in the proposed district or the majority of landowners owning at least one-third of the land in the proposed district may petition the county court for approval.

All drainage boards in a county are governed by a single county drainage board. The board consists of three members appointed by the county court for staggered three-year terms.

The county drainage board has the authority to plan, design, construct, and maintain drainage works. The Board is required to consider environmental effects in drainage proceedings and secure a permit from the Department of Natural Resources for any work which involves navigable waters.

The Board is authorized to accept grants and raise revenues through special assessment on property benefited by drainage boards and to borrow money.¹⁷

3.2.5 Specific Local Areas

Two local areas were selected for evaluation of their non-point pollution activities which were identified as innovative by the PLUARG Task A Committee and the Great Lakes Basin Commission. These two agencies are the Southeastern Wisconsin Regional Planning Commission (SEWRPC) and the non-point pollution demonstration project in Washington County. The following is a brief description of these two areas:

3.2.5.1 Southeastern Wisconsin Regional Planning Commission

The Southeastern Wisconsin Regional Planning Commission (SEWRPC) was formed to provide the necessary areawide planning services for one of the large urbanizing regions of the nation. The Commission was created in August, 1960, under the provisions of Section 66.945 of the Wisconsin Statutes, to serve and assist the local, State, and Federal units of government in planning for the orderly and economical development of Southeastern Wisconsin. The role of the Commission is entirely advisory; and participation by local units of government in the work of the Commission is on a voluntary, cooperative basis. The Commission itself is composed of 21 citizen members, who serve without pay--three from each county within the region.

The powers, duties, and functions of the Commission and the qualifications of the Commissioners are carefully set forth in the State enabling legislation. The Commission is authorized to employ experts and a staff as necessary for the execution of its responsibilities. Basic funds

necessary to support Commission operations are provided by the member counties on the basis of relative equalized valuation. The Commission is authorized to request and accept aid in any form from all levels and agencies of government for the purpose of accomplishing its objectives, and is authorized to deal directly with the State and federal governments for this purpose.¹⁸

3.2.5.2 Washington County Project

This is a Section 108 (of U.S. Public Law 92-500) demonstration project with two major objectives. The first is to demonstrate the effectiveness of land treatment measures for improving water quality; the second, to devise the necessary institutional arrangements required for the preparation, acceptance, and implementation of a sediment control ordinance applicable to incorporated and unincorporated areas on a County-wide basis.

Washington County was selected because small watersheds were available for the technical work, and the County is on the outer fringe of the Metropolitan Milwaukee area and is beginning to experience development pressures.

3.3 LEGISLATIVE FRAMEWORK

The legislative framework for the State of Wisconsin is made up of the various different laws relating to water quality and their effective implementation by the institutional structure. This framework is presented in summary form on Table II, Summary of Legislative Framework. A summary of the evaluation of the degree of implementation is presented in Table III, Summary of Analysis. The following subsections present in more detail the legislative framework and the evaluation as summarized in the two tables. Each table is accompanied by a page of notes identifying different symbols that are used on the table and any specific clarifying comments.

3.3.1 All Land Use Categories

Magnitude of the Problem

This section describes the general environmental enabling legislation for the State of Wisconsin which affects the different land use categories. This is the basic enabling legislation for the Department of Natural Resources and the regulations for establishing water quality standards. Because of their general nature, they are applicable to most non-point pollution problems.

Current Activities

The legislation is classified into three legislative components: pollution control, planning, and indirect control. The pollution control provision in this category includes the establishment and enforcement of water quality standards through a permit program which applies to point source pollution.¹⁹

CHAPTER	LAND USE CATEGORY 1										Regulations 2	IMPLEMENTING RESPONSIBILITY 3				TYPE OF CONTROL 4					COMMENTS/IMPLEMENTING AGENCY
	Urban	Agriculture	Liquid/Solid Waste	Transportation	Shoreline Landfill	Extractive Operations	Recreation	Lakes & Riverbanks	Forest	State		County	Municipality	Special District	Direct (PC)	Planning (P)	Indirect (OS)	Non-Statutory (NS)	Management (MP)	Fiscal (F)	
44.025 Enabling Legislation	X	X	X	X	X	X	X	X	X	N/A	X				X	X	X				Department of Natural Resources
Wisc. Administrative Code 102, 103, 104	X	Y	X	X	X	X	X	X	X	N/A	X				X						" " " "
28 Public Forests								X	N/A	X	X				X	X			X	County Boards	
33 Inland Lake Protection	X	X			X			X	N/A	X			X	X	X		X		X	Department of Natural Resources Local Lake District	
59 Counties		X			X		X		N/A		X				X	X				Counties	
59.971 Zoning of Shorelands in Navigable Waters: Chap. 144.26 Navigable Waters Protection Law	X	X	X		X		X		YES	X				X	X		X			Department of Natural Resources Counties	
60; 66 Towns	X	X					X		N/A			X			X	X			X	Towns	
66 - Municipal Sewerage Districts	X		X						N/A				X			X			X	Municipal Sewerage Districts	
60.30 Town Sanitary District	X		X						N/A				X		X	X			X	Town Sanitary Districts	
62 Cities	X		X	X			X		N/A			X		X	X	X			X	Cities	
66 Villages	X			X			X		N/A			X		X	X	X			X	Villages	
88 Drainage Districts		X							N/A				X		X	X				Drainage Districts	
92 - Soil & Water Conservation Districts	X	X							N/A				X	X	X		X		X	Soil and Water Conservation Districts	
29, 94.67-71, 15.195 Pesticides		X							YES	X						X				Department of Agriculture, Pesticide Review Board	
144.03 - Septic Tank Installation			X						N/A	X	X					X				State Board of Health, County Clerk, County Zoning Administrator	
144.07 Joint Sewage Commission			X						N/A				X		X	X				Joint Sewerage Commission, DNR	
144.36 Metallic Mining & Reclamation Code NR 130, 131						X			YES	X					X	X			X	Department of Natural Resources	
146.20 Septic Sludge Hauling			X						YES	X						X				Department of Natural Resources	
144.43, 144.44 Solid Waste Mgmt.			X						YES	X						X			X	Department of Natural Resources	
144 - Shoreland and Flood Plain Zoning			X						N/A	X						X				Department of Natural Resources	
15.347 144.195 Mining						X			N/A	X						X				Mine Reclamation Council, DNR	
Coastal Coordinating & Advisory Council		X							N/A	X				X						Coastal Coordinating & Advisory Council	
Proposed Coastal Zone Management		X							N/S	X				X					X	Coastal Coordinating & Advisory Council	
Internal Rules for Sludge Management			X						YES	X					X					Department of Natural Resources	

NOTES -- TABLE II

1. Land Use Categories -- See Chapter 2, for definitions and identification of the land use activities in each category. An X indicates that the land use category is addressed by the Act. It does not indicate the adequacy of authority or degree of implementation. See page reference for discussion.
2. Regulations Adopted -- Have regulations been adopted to implement the legislation? Symbols refer to:
 - Yes -- Regulations have been adopted
 - No -- Regulations have not been adopted
 - NA -- Information not available or in case of Non-Statutory Control, not applicable.
3. Implementing Responsibility -- The key agencies and/or levels of government that have responsibilities in implementing the legislation. Specific agencies, municipalities and/or special districts are identified in the comments section.
4. Type of Control -- See Chapter 2, Section 3, for definitions of each type of control.
5. An X indicates that the category is addressed by the act identified, it does not identify the adequacy or degree of implementation.

LAND USE ACTIVITY	Magnitude of Problem ¹	Current Activity ²	Staffing ³	Financing ⁴	Likely Future Activity ⁵	COMMENTS/SOURCES
Urban						
Site Runoff	M	NO	-	-	NO	See Notes 6, 7, Activity at local level
Stormwater Runoff	UK	TR	NI	NI	TR	See Note 7
Agriculture						
Pesticides	L	TR	NI	NI	R	See Notes 6, 7
Fertilizers	UK	TR	NI	NI	R	See Notes 6, 7
Feedlot Operations	M	TR	NI	NI	R	See Notes 6, 7
Erosion	M	L/R	NI	NI	L/R EP	See Notes 6, 7
Drainage	L	NO	NI	NI	NO	See Note 7
Liquid, Solid, Deepwell Disposal						
Slid Waste	L	EP	O	O	NO	See Notes 7, 8, 9
Liquid Sewage Sludge	UK	EP	NI	NI	NI	See Note 7
Private Sewage Disposal	M	L,R	-	-	L,R	See Text
Transportation Corridors						
Highway & Road Runoff	L	NI	NI	NI	NI	See Text
Railroad Runoff	L	NI	NI	NI	NI	See Text
Airport Runoff	L	TR	NI	NI	NI	See Text
Utility Rights-of-Way Runoff	L	NL	NI	NI	NI	See Text
Shoreline Landfilling						
Dredging	L	EP	O	O	NO	See Text
Land or Construction Excavation	L	EP	O	O	NO	See Text
Extractive Operations						
Pits or Quarries	L	NO	NA	NA	NO	See Text
Mining	L	EP	NI	NI	EP	
Brines from Oil and Gas	L	NO	NI	NI	NO	
Recreation						
Pesticide Use	L	TR	NI	NI	E	See Notes 6, 7
Runoff from Specific Uses	L	NO	NI	NI	NO	
Private Sewage Disposal	M	L,R	-	-	L,R	See Text
Lakeshore and River Banks		EP				
Erosion	UK	NO	O	O	NI	Lake Districts Only
Forest						
Timber Production	L	EP	NI	NI	NI	Clear Cutting Only
Woodland Grazing	L	NO	NO	NO	NI	
Wildlife Management	L	NO	NO	NO	NI	
Recreation	L	NO	NI	NI	NO	

NOTES -- TABLE III

1. Magnitude of the Problem -- The degree that the land use activity is reported to be a problem and/or perceived to be a problem by local or State officials. Symbols refer to:

S -- Serious

M -- Moderate

UK -- To be determined

L -- Low.

2. Current Activity -- The land use activities where current activities are focused primarily at the State level. Activities of major emphasis are noted with asterisks (*). The types of activity are:

L -- Development of new or improvements to legislation

R -- Development of new or improvements to the regulations

TR -- Technical research to determine the type of controls needed, if any

IP -- Implementation to incentive programs

EP -- Enforcement of control programs

NO -- No action

NA -- Not applicable

NI -- Information not available.

3. Staffing -- The adequacy of staff assigned to the implementation of legislation addressing the land use activity. Symbols refer to:

+ -- Too many staff resources applies

O -- An adequate amount of staff resources applied

- -- An inadequate amount of staff resources applied

NA -- Not applicable

NI -- Information not available.

4. Financing -- The adequacy of the financing appropriated to the implementation of legislation addressing the land use activity. Symbols refer to:
- + -- Too much financial assistance
 - O -- Adequate financial assistance
 - -- Inadequate financial assistance
 - NA -- Not applicable
 - NI -- Information not available.
5. Likely Future Activity -- The land use activities where there is likely to be future activity primarily at the State level. The types of activity are:
- L -- Development of new or improvements to legislation
 - R -- Development of new or improvements to the regulations
 - IP -- Implementation of new or improved incentive programs
 - EP -- Enforcement of new or improvement of control programs
 - NO -- No action
 - NA -- Not applicable
 - NI -- Information
 - TR -- Technical research to determine the type of controls needed, if any
 - NC -- No change from current activity
6. Source of evaluation is Robert W. Reed, "The Management of Land Use Activities Which Effect Water Quality in the Great Lakes Basin," in Management Program, Research and Effects of present Land Use Activities on Water Quality of the Great Lakes; September 1974. Pollution From Land Use Activities Reference Group of the International Joint Commission, Windsor, Ontario.
7. Interview with John Konrad, Department of Natural Resources, May 19, 1977.
8. Natural Resources Council of State Agencies and the Wisconsin Environmental Education Council, Managing Wisconsin's Natural Resources: An Inter-Agency Overview; 1976. Natural Resources Council of State Agencies, Madison, Wisconsin.
9. Natural Resources Council of State Agencies, Managing Wisconsin's Natural Resources; 1973. Natural Resources Council of State Agencies, Madison, WI.

The State currently has created a task force to review the water quality standards and refine them as necessary. This refinement is to include identifying criteria relating to toxic substances, clarification of the anti-degradation policy, and examination of criteria for better application to non-point source pollution.²⁰

The current legal and institutional framework for water quality management is also being evaluated to identify problem areas and changes that need to be made.

The legislation also requires the development of a long-range, comprehensive State water resources plan which is to be used as a guide for water resources related decisions. DNR has developed a first-phase Water Resources Plan for Wisconsin. It outlines the procedures for directing future water management activities, with a focus on a statement of water resource objectives.²¹ The general legislation also provides for a State and regional advisory committee structure, to provide input at the State and regional levels to the Department, foster education programs, and act as liaison to the public for the Department.

Evaluation

In the interviews with State and local officials, no specific problems were identified with the general enabling legislation. Specific problems and actions currently being undertaken in regard to each of the land use activities under study will be identified in the following sections. There was considerable concern voiced, however, in terms of how to control non-point pollution sources. From a technical standpoint, many officials felt that not enough is known about specific non-point problems; therefore, it is very difficult, if not impossible, to write a legislative control.

In order to begin to develop solutions to specific problems, the Department of Natural Resources, as part of the non-designated 208, has created a non-point source control program designed to do technical studies in 14 small watersheds to determine water quality problems from specific, identified land uses, so that necessary controls can be developed. It is hoped that this program will result in a more comprehensive approach to the control of pollutants from non-point sources, and, as a side benefit, will eliminate any current duplications or contradictions between existing controls. As this program impacts the various different specific land use activities to be discussed in the remainder of this report, the program will be detailed and the potential results identified.²²

3.3.2 Urban Areas

3.3.2.1 Construction Site Runoff

Magnitude of the Problem

New construction sites in urban areas can exert a non-point source loading of sediments up to 500 times greater per unit area than is evident in

agricultural operations. Construction is an extensive land use disturbing activity and places urban lands under significant pressures and unstable conditions, resulting in a high loss of topsoil.²³ The problem is directly related to the growth of a specific area and the resulting demands for additional housing and commercial and industrial construction. Thus, the problem is greater in some urbanized areas than others. The problem has been identified as a moderate one in terms of its pollution generation and the need for control.²⁴

Current Activities

The State views the runoff from construction sites as a problem that must be controlled at the local level. As a result of this view, the State has adopted a policy of not becoming involved in the control of construction site runoff.²⁵

Cities, villages, towns and counties can control urban activities through their powers to enact and enforce zoning ordinances, subdivision regulations, building and sanitary codes, and to adopt a development plan. In addition, cities, villages, and towns can engage in natural resource conservation and watershed protection projects. Cities, villages, towns, and counties have their general enabling legislation spelled out in Chapters 59, 60, 62, and 66. This general enabling legislation gives these local municipalities powers over planning and indirect control of pollution-generating activities, as well as the responsibility for providing adequate management of any lands that they own.

Soil and Water Conservation Districts (Chapter 92), the Shoreland Zoning Program (Chapter 59.971, 144.26 and NR 115), and the Inland Lake Protection Districts (Chapter 33) are three additional sources of legislative authority that can control construction site runoff. These Acts allow for direct control through land use regulation, approval of facilities construction for planning activities through the preparation and adoption of conservation and comprehensive plans, and indirect control through information and technical assistance programs.

Soil and Water Conservation Districts, created by the county board of supervisors, cover the entire State, with one in each county. The District can assist cities and villages in the development of plans and provide technical assistance to them for the control of erosion, runoff and sedimentation. In addition, they can propose land use regulations in part or in all of the unincorporated areas of counties. In order to go into effect, these regulations must be approved by a referendum and adopted by the county board. To help implement their various plans, the Soil and Water Conservation Districts can enter into cooperative agreements with governmental agencies and private landlords to provide financial aid.

The Shoreland Zoning Program is a special program of cooperation between the DNR and the local jurisdictions. The DNR has prepared a comprehensive plan for the control of land use activities in shoreland areas. This plan

includes guidelines for the development of local implementing ordinances to insure that land use activities in shoreland areas are controlled. A shoreland area is defined as that area which is 1,000 feet from a lake or pond and 300 feet from a navigable stream or the landward side of the floodplain.

Based on the DNR Comprehensive Plan, each county is required to enact a local shoreland zoning ordinance, which is then certified by the DNR. If a county fails to enact an ordinance, the DNR shall adopt one for the county. In all cases, the county is responsible for implementing the local ordinance. This Act also applies to cities and villages, as well as the unincorporated areas of counties. It allows for the different jurisdictions to contract with one another to insure implementation of the ordinances.

The Wisconsin Inland Lake Protection and Rehabilitation Law is also a joint State and local program. The Law requires that a special Inland Lake District be established around any public lake, and a management program developed that includes the following items:

- Gathering information to define problems
- Developing remedial measures to deal with the problems
- Developing a plan with a set of alternative courses for action
- Selecting the most feasible rehabilitation and protection proposal
- Implementing the program

The program is implemented by a district board, which is authorized to plan, adopt, and carry out lake protection and rehabilitation projects. The district has the power to issue contracts, hold property, and do other things necessary to carry out a program of lake protection and rehabilitation. It may raise money through taxation, special assessment bonds, or loans. The district does not have its own police power to enact zoning or lake use ordinances.

Evaluation

This evaluation will fall into two different sections--first, activities being done by cities, villages, towns, and counties under their general land use control legislation; and evaluation of the activities of the Soil and Water Conservation District, the Shoreland Zoning Program, and the Inland Lake Protection Program.

The primary control of site construction runoff is exercised by the different municipalities through their general land use control regulations. In general, the municipalities have adequate authority to pass the necessary local ordinances to control construction site runoff, but few of them have really made significant steps in passing and enforcing such an ordinance. It is also the DNR's view that some of the local jurisdictions that have controls are having enforcement problems, primarily due to a lack of staff and financial resources being supplied to the programs.²⁶

Several local ordinances developed under guidelines prepared by the Southeast Wisconsin Regional Planning Commission are comprehensive in nature,

dealing with the retention or replacement of ground cover and other sediment control practices.²⁷ In addition to the existing local ordinances, the areawide 208 Programs in the Milwaukee Metropolitan Area, Madison Metropolitan Area, and Green Bay Metropolitan Area, are working with local communities to develop controls for construction site activities. These activities should generate better ordinances for local governments in their geographic areas, but will not directly affect any staffing and financing problems that currently exist. The requirement of the 208 Program that any suggested activity be adequately implemented could apply pressure to the local jurisdictions to adequately staff the enforcement of a construction site runoff ordinance. Since 208 is still in the planning stages, it is too early to tell the degree of enforcement by EPA and the resulting impacts on local jurisdictions.²⁸

The officials interviewed and the materials collected did not identify the number of local site construction runoff ordinances that have been passed or any differences in their quality. It was implied, however, that most jurisdictions do not have specific site construction controls; and, due to the State's policy of not becoming involved in this area, it is the Contractor's viewpoint that this will continue to be a problem.

Soil and Water Conservation Districts do have the authority to regulate land use activities in unincorporated areas. There currently is only one SWCD in the State of Wisconsin which has land use control regulations, approved by a referendum. It has not been implemented because it has been waiting for a lengthy period of time for the County Board of Supervisors to adopt it.²⁹

The Washington County Project is attempting to develop model legislation which will allow Soil and Water Conservation Districts to have an easier method of adopting land use regulations.³⁰

The Shoreland Zoning Program is directly related to the control of land use activities which affect water quality in the shoreland zone. The State has completed developing its comprehensive plan and guidelines, and almost all counties have adopted or are in the final stages of adopting a control ordinance. Due to the newness of the program, it is still too early to tell what kinds of problems local jurisdictions will have in implementing their ordinances. There are no provisions in the Act that allow for State monetary assistance to the counties to help with implementation. In addition, the role of the State in insuring enforcement of a local ordinance is not clear.

The Inland Lake Protection Program has been an active program of DNR for the last several years. This Program has attempted to concentrate on cleaning up known point sources in the lakes and developing programs that deal with control of pollution from septic systems and the use of various different pesticides and herbicides. Recently, the Program has begun to look at sediment runoff problems. With this refocusing, the Program is being reviewed; and districts are receiving technical assistance from the DNR to try to develop sediment control programs for each individual lake. Since

this phase of the Inland Lake Program is still in its infancy, its impact to date in terms of direct water quality has been minimal; and how it will work in the future remains to be seen. It is important to note, however, that this program allows for State financial assistance to governments and private individuals so that a different approach can be taken to controlling sedimentation in the Inland Lake Program than in the Shoreland Zoning Program.³¹

In the Contractor's viewpoint, there is adequate authority in the State of Wisconsin to control construction site runoff. The primary problems seem to be in developing specific controls, and then in providing adequate resources to the enforcement agencies to insure compliance with the controls. The Contractor questions the use of the Soil and Water Conservation Districts and the Inland Lake Protection Districts to control construction site runoff, since both of these districts have other priorities; and construction site runoff could be viewed as a low priority. It is the Contractor's evaluation, however, that both of these districts can be used effectively to control construction site runoff, especially in those districts where there is considerable construction activity, if proper incentives are provided.

3.3.2.2 Stormwater Runoff

Magnitude of the Problem

Pollution from stormwater runoff normally occurs in one of two ways: (1) where the stormwater is combined with raw sewage in a combined sewer system; and excess flow exceeds the capacity of the treatment plan, resulting in the combined raw sewage and stormwater bypassing the treatment plant and going directly to the receiving stream; or (2) where the stormwater is separated from the sewer system but goes directly to the stream without any kind of treatment. The combined sewer problem has been defined as a point source problem while the separated system is defined as a non-point pollution problem. A key consideration in regard to urban stormwater runoff is to design the stormwater systems of new subdivisions in ways that are compatible with both drainage needs as well as to provide for retention of stormwater within the drainage area as long as possible.

Water quality benefits to be gained are reduced discharges, as a result of increased infiltration, reduced discharge rate, which means lower velocities and lowered erosion capability of flowing water.

Currently, the State does not know the magnitude of the pollution from stormwater. It is hoped that the non-point source pollution program identified earlier will give them an idea as to the magnitude of the problem, and identify what kinds of controls and/or structural requirements will be needed to control it.

Current Activities

Stormwater runoff can be controlled by metropolitan sewerage districts (MDS's, Chapters 60.30-60.316), joint sewerage commissions (Chapter 144.07),

and town sanitary districts (Chapter 60.30). Each of these districts has the power to plan, construct and operate stormwater sewers. MSD's and JSC's may also treat stormwater. The total number of these kinds of districts in the State of Wisconsin is not known, but it can be assumed that sewage collection in every municipality in the State is done through a district of this type. Thus, there is in every area where there is a potential urban stormwater runoff program, some sort of an institution that has the current authority to control pollution from urban stormwater runoff.

The primary activity related to urban stormwater runoff is being undertaken in the 208 Program. This Program must identify the stormwater runoff problems in each of the urbanized areas, and the statewide program will identify problems in non-urbanized areas. From this, the State should have a much better understanding of the stormwater runoff problem in the State.

Evaluation

Information is currently not available on the magnitude of the problem and the current degree of control of urban stormwater runoff. The analysis of stormwater runoff is further complicated by its inclusion into control of combined sewers, which have been administratively and institutionally defined as a point source problem. The DNR has made a preliminary identification of stormwater as a pollution problem due to the lack of dissolved oxygen; however, how to control stormwater runoff has not yet been determined.³²

The Contractor's evaluation of the control of urban stormwater runoff in Wisconsin is that there are three institutional mechanisms which could deal, to different degrees, with stormwater, metropolitan sewer districts, joint sewer commissions, and town sanitary districts. However, with the lack of clear definition of the magnitude of the problem in local areas, this institutional structure will remain under-utilized for the control of stormwater runoff.

3.3.3 Agriculture

3.3.3.1 Pesticides

Magnitude of the Problem

In Wisconsin, there is growing recognition that pesticides may have a serious adverse effect within the complex environmental structure.³³ More specifically, toxic chemicals present special problems due to their characteristics. These chemicals last for a short duration of time at low concentrations, but they are very toxic under proper conditions. The largest use of toxic agricultural chemicals in the State is the raising of corn, where Altrazine is used extensively.³⁴ Overall, however, the use of pesticides has a low level effect on surface water quality.³⁵

Current Activity

In the legislative area, Wisconsin was the first state to ban the sale, use and transportation of DDT by statute (Section 134.67, Wis. Stats.). Also, a Pesticide Review Board and a Technical Advisory Committee (Section 15.195, Wis. Stats.) have worked diligently with the resultant approval of two regulations affecting agricultural pesticide use (Chapter Ag 29, Agricultural Rules) and natural resources controls over nine chemicals named as "restricted use pesticides" (Chapter NR 80).

Under Section 94.67-94.71, Wisconsin Statutes and Chapter Ag 29, the Department of Agriculture, with the approval of the Pesticide Review Board, is responsible for regulating the use, sale, distribution, and storage of pesticides. The Department issues permits for application on a case-by-case basis. In using the permit, the Department applies restrictions pertaining to such aspects as control of drifting during high winds, stopping application operations if drifts do occur, and providing a buffer zone between areas of application of pesticides and surface water areas.³⁶

In addition, Wisconsin has developed a Chemical Aquatic Nuisance Control Program, which is a model being adopted by other states. The basic effort of the program is to insure that the public interest in surface waters is not jeopardized by the use of pesticides for weed and algae control. The Department of Natural Resources and Wisconsin Department of Agriculture have recently developed joint enforcement agreements. They have also cooperated in joint enforcement efforts to insure the proper use and control of pesticides where there is a conflict between agricultural pursuits and other legitimate land use efforts.³⁷

To improve the technical basis on which controls are based, the Department of Natural Resources is monitoring the impact of agricultural chemicals on water quality in its Non-point Source Pollution Program.

Evaluation

Wisconsin appears to be meeting the standards established in the Federal Environmental Pesticide Control Act of 1973, except those requirements regarding the certification of pesticide applicators for which there is no current program. Such a program has been recommended. It has also been recommended that the State agencies represented on the Pesticide Review Board should implement a system for obtaining pesticide use data on those products that pose a potential hazard to man, property, wild animals and the environment in general, as a toxicant or residue.³⁸

It is hoped that the Non-point Source Pollution Program will be able to identify the impacts of pesticide application. With this information, the DNR will attempt to establish a program for the training and certification of pesticide applicators, which, though not regulatory in nature, will increase the general knowledge of the problems related to the application

of pesticides, and thus reduce the water quality impacts of their application.³⁹

3.3.3.2 Feedlots

Magnitude of the Problem

Research completed by the Department of Natural Resources indicates that feedlots and barnyards in Wisconsin are pollution problems.⁴⁰ There are presently 98,973 farms in Wisconsin and 18,109,273 (1969 U.S. Farm Census) acres of land in farm ownership. Of this number, 50,818 landowners and 9,884,250 acres of land (approximately 30 percent of the total land area of the State) are involved in the Soil and Water Conservation District Land Use and Water Management Program.⁴¹ DNR estimates that 40 percent of Wisconsin's dairy farms and an unknown number of other feedlots constitute a water pollution problem. Furthermore, a bulk of Wisconsin's feedlots are excluded from point source regulation by virtue of EPA farm size definitions.⁴²

Current Activity

In Wisconsin, the Department of Natural Resources proposed animal waste management rules in early 1972. The proposed rules were prepared by the Department in cooperation with an advisory committee. The purpose of the proposed rules is to provide livestock producers, agri-businessmen and public entities with a basis for making sound management decisions which are compatible with water resources statutes. The proposed rules are primarily concerned with controlling surface and groundwater pollution problems associated with manure storage systems, feedlot runoff, streams flowing through barnyards, and winter manure spreading near streams. After a series of educational meetings, six public hearings were held at various locations throughout the State in March, 1972. A large number of farmers appeared at the hearings in opposition to the proposed rules. Since the public hearings, a transcript and a summary of the hearings has been prepared. The advisory committee has met several times and has recommended revisions to the original proposals.⁴³

The Department decided to withhold action on its proposed rules until it was clear how any new federal regulations might affect agriculture in Wisconsin. The federal regulations, which have now been promulgated, specify that feedlots which must apply for a (WPDES) discharge permit are those with greater than 1,000 animal units having discharges to surface waters; feedlots with less than 1,000, but 300 or more animal units, if they discharge through a man made conveyance or discharge pollutants into waters passing through or coming into direct contact with animals in the confined area; and feedlots designated on a case-by-case basis only, if the feedlot discharges pollutants through or coming into direct contact with the animals in the confined area. Permits for feedlots greater than 1,000 animal units are to be based on effluent limitations also published in EPA regulations requiring that there be no discharge of pollutants, except for that which might overflow during

heavy rainstorms. However, no effluent limitations have been published as yet covering those lots smaller than 1,000 animal units.⁴⁴

To strengthen the technical base upon which controls can be developed, the DNR is conducting a survey of the disposal of animal waste concurrently with an erosion sampling program. The purpose of this survey will be to determine the size and location of problems and the type of management practices needed to correct animal waste disposal.⁴⁵ Furthermore, the U.S. Soil Conservation Service and the Cooperative Extension Service have active programs in education and technical assistance and have already incorporated rural pollution abatement techniques into their programs.⁴⁶

Evaluation

Statewide rules need to be adopted for the management of animal wastes. The farm industry also needs technical and financial assistance to solve waste problems.⁴⁷ The State would prefer to go to some sort of a non-permit type of control program. However, they do not feel that such a program can be developed until they finish the technical work that will identify the parameters that need to be controlled. In the interim, they are continuing an extensive education and citizen participation program related to their non-point pollution control program. This overall effort will result in a best management practice for agricultural feedlots.⁴⁸

3.3.3.3 Fertilizers

Magnitude of the Problem

Agricultural land is estimated to contribute approximately 20 percent of the total phosphorus loading in the Great Lakes and approximately 30 percent of that contributed by tributaries to the Great Lakes. Unfortunately, sufficient information is not available to compute the proportion of nitrogen loadings contributed from agricultural lands, although it may be similar to the amount estimated for phosphorus.⁴⁹ Thus, while it is recognized that there are pollutant problems with fertilizer application, the problem of what to control and how to write controls must be addressed. Specific to the application of fertilizers is the determination of the application rate, method of application, and the impact of different types of practices on water quality.

Current Activities

Wisconsin currently does not have any direct controls on the application of fertilizers. In the past, the DNR proposed agricultural waste rules which would have regulated the use of fertilizers. However, in Wisconsin, any regulation that is proposed by an executive agency must be approved by the State legislature, and this specific proposed regulation was vetoed by the legislature. The State is currently attempting to obtain better information on the time, rate, and method of application of fertilizers, to determine if there are regulatory or non-regulatory programs that might

control the use of fertilizers. At the same time, there is the existing Agricultural Extension Service, which provides information to farmers on the amount of fertilizer they should use on a given field for a specific crop. With the increasing price of fertilizer, the DNR feels that this might become less and less a problem, because the farmers will be much more selective in their use of fertilizer.⁵⁰

Evaluation

While the existing activity has an indirect impact on water quality, it is nevertheless an important one, since, in this case, proper agricultural and farming practices will result in a benefit to water quality. With the current non-point pollution program, the DNR hopes to be able to identify the parameters under which fertilizers can be controlled and whether or not they should attempt to develop regulations for their control. Until this technical program is completed, problems identified, and techniques of control developed, further legislative or enforcement activity in this area is not contemplated.⁵¹

3.3.3.4 Erosion From General Farm Practices

Magnitude of the Problem

The loss of sediment resulting from agricultural practices is another problem that is being addressed under Wisconsin's non-point source pollution program. In the past, much publicity has been given to agricultural pollution; however, very little documented information on the magnitude of this problem is available. Thus, it is the attempt of the non-point pollution program to try to identify the sediment problems related to agricultural practices. It is known, however, that there are 98,973 farms in Wisconsin, with 18,109,273 acres of land in farming use. Of these, approximately 51 percent of the farms (54 percent of the farmland) are currently participating in soil and water conservation, land use, and water management programs. This requires that participating farms have some sort of a plan which identifies the best practices for that particular farm. While these are not direct water quality determinations, good farming practices usually mean better water quality, since the emphasis is to keep the soil on the land. While this is an indicator of the magnitude of the problem, it is by no means a definition of the problem, which can only come from the more specific research currently being carried out the the DNR.⁵²

Current Activities

As discussed in the site runoff section, sediment control can be achieved through Soil and Water Conservation Districts and the Shoreland Zoning Program and for those agricultural uses which fall within an Inland Lake District. Currently, the Department of Natural Resources is studying the pollution related problems to sediment control through its non-point source program. They are hopeful that this program will identify the parameters which must be controlled in regard to agricultural erosion, so that controls can be developed.⁵³

Additional long-term study, especially from the institutional and legislative standpoints, has been carried out in Wisconsin in regard to sediment control with the Washington County Project. While this project will not be complete until mid-1978, preliminary findings indicate that the best institutional structure for strengthening sediment control is the use of Soil and Water Conservation Districts as an implementing mechanism. The Soil and Water Conservation Districts have potential political power in that their boards of directors are made up of the elected county commissioners; therefore, they have direct access to the elected power within a county. What is currently lacking in the Soil and Water Conservation Districts is technical and educational expertise to assist farmers in developing sediment control plans and then implementing them. Implementation would also be enhanced if there was a cost sharing mechanism to assist farmers in planning and implementation. Many sediment control practices are unprofitable for a farmer; and, without cost sharing programs to reduce the amount of loss, most farmers would be financially unable to meet sediment control requirements. Implementation would also require the integration of federal technical assistance and cost sharing programs with existing State and local programs so that a comprehensive approach could be implemented.⁵⁴

The model that is under consideration for use in strengthening the Soil and Water Conservation Districts is that of the Shoreland Zoning Program. This Program requires that the State provide an overall management plan and implementation guidelines for local jurisdictions. The local jurisdictions are responsible for developing and implementing a control ordinance. Preliminary findings of the Washington County Project reveal that if the State attempts to get direct land use control, including implementation, it will not be accepted; and this could be a major setback to any program in Wisconsin.⁵⁵

The Inland Lake Protection Districts are of limited use in sediment control from agricultural sources in that they normally cover areas of residential development in and around a lake and very little agricultural land is included in them. For those lands that are included, they cannot provide direct regulation of agricultural activities to control sediment, but their cost sharing and technical assistance features will allow them to work with farmers to develop plans to control sediment and assist them in plan implementation.⁵⁶

Evaluation

The officials of DNR feel that the development of sediment control legislation will complete the basic water quality legislative framework needed for the State of Wisconsin. The non-point source program has been designed to define the parameters that must be controlled and the legislation drafted.

The DNR officials are looking closely at the Soil and Water Conservation Districts as the best institutional structure to implement sediment control. While these districts currently do have authority to control land use, it

has been virtually impossible to implement the authority, due to the requirement that controls must pass a referendum and be approved by the county board. As was noted under the urban areas discussion, currently only one Soil and Water Conservation District has been successful in obtaining referendum approval for land use controls; and it has not been able to secure approval of the county board of commissioners.⁵⁷

It is the Contractor's evaluation that the combination of the non-point source pollution control program and the Washington County Project should give the State of Wisconsin a comprehensive look at its sediment control problems, and should provide draft legislation for the control of sediment.

3.3.3.5 Drainage

Magnitude of the Problem

Drainage and wetland conservation are directly opposed to one another. In the past, there was great emphasis on draining wetlands for agricultural production; and farmers still do a certain amount of drainage. However, there is also recognition that wetlands have a beneficial effect on the environment and man's use of it. The State of Wisconsin has a drainage district act (Chapter 88) which allows for the creation of a drainage district to drain wet agricultural lands. At the same time, the Department of Natural Resources has initiated an active program of acquisition and the restoration of wetlands. This program has resulted in a total of 276,000 acres of wetlands purchased by the DNR, along with approximately 17 percent of the 383,000 acres of county forest land being classified as wetlands.⁵⁸

From a water quality standpoint, drainage districts are not mechanisms which are directly used to control pollution, since their primary purpose is to drain land for agricultural purposes. The districts are run by a county drainage board, which is required to consider the environmental side effects when they are making recommendations on the organization of drainage districts and the design of drainage works. The actual water quality problems that are created by drainage in the State of Wisconsin are unknown, as are the mechanisms that drainage districts could use to control water pollution in the drains for which they are responsible. In interviews with State officials, drainage is not considered an important non-point pollution problem, nor is there much thought being given to using drainage districts as institutional structures to control sources of non-point pollution.⁵⁹

Current Activities

The current number of drainage districts in the State is unknown. Each county has a drainage board appointed by the County Board of Commissioners which administers as many drainage districts as have been created in the county. The districts are created by petition of contiguous landowners. The water quality aspects of the drains are controlled by the Department of Natural Resources, since all waters in the State are held in trust by the DNR.⁶⁰ Thus, the drainage boards are controlled locally, by the

county boards of supervisors, with the State having very little involvement. The activity at the local level varies from virtually none to very extensive, depending on local concern and the need to maintain drainage works for continued agricultural production. From a water quality standpoint, any impacts will be of an indirect nature, since drainage districts are not designed to address water quality problems.

Evaluation

As is noted above, drainage districts do not directly consider water quality problems, with the exception of the requirement for environmental review by the board of directors on its actions of creating a district or approving the construction of drainage works. Due to this format, drainage districts are used extensively for water quality purposes, but continue to function as they were originally created years ago—for the drainage of agricultural wetlands.⁶¹

3.3.4 Liquid, Solid and Deepwell Disposal

3.3.4.1 Solid Waste

Magnitude of the Problem

The problems associated with solid waste disposal in Wisconsin are:⁶²

- Expanding volumes of solid waste with limited areas for disposal
- Refusal of towns to permit municipalities to operate disposal facilities within their boundaries
- Reluctance of some municipalities and private operators to comply with written orders
- Public resistance to institute new landfill sites and reluctance of municipalities to join into cooperative areawide programs and explore the use of new techniques.
- The improper disposal of toxic and hazardous wastes and lack of complete knowledge in this area

The total amount of solid waste generated in the State is unknown; however, more than 1,900 disposal sites and auto salvage yards have been licensed.

Current Activity

The DNR conducts a solid waste management program based on a comprehensive State law passed in 1967 (Chapters 144.43 and 144.44). The goal of this law is to enhance the quality and management protection of the State's air, water

and land resources. Its objectives are to establish minimum standards for the location, design, construction, operation and maintenance of solid waste disposal sites and facilities; and to establish an annual licensing program for solid waste disposal sites and facilities.⁶³

Counties have the authority to establish solid waste management plans and systems alone or jointly with other local jurisdictions [Chapters 59.07(135), 144.30, 144.435, 144.437 and 144.445]. The goal of the legislation is to encourage regional solid waste management and a planned approach to solid waste management. The objectives of the Act are to assist counties in providing leadership for cooperative solid waste management systems, obtaining solid waste management plans, assuring the uniformity and completeness of the plans, and assuring that planned systems are in conformance with the Wisconsin Solid Waste Management Rules.⁶⁴

In 1973, Wisconsin established a Solid Waste Recycling Authority, which functions as a centralized body to handle development, design, financing, construction and operation of solid waste resource recovery systems. The goal of the Authority is to provide for the maximum recycling of solid waste.⁶⁵

In addition to these three major acts, solid waste is controlled by legislation that prohibits highway littering (Chapter 349.94). Cities and villages regulate landfills within their boundaries and one and one-half miles of the corporate limits through planning, zoning and subdivision powers of the respective general purpose governments (Chapters 59, 60, 62 and 66. The Shoreland and Flood Plain Zoning Program (Chapters 59.971, 144.26, 144.46, NR 115) prohibits solid waste disposal sites and facilities within areas under the program unless permitted by the DNR. Solid waste is also controlled through the authority provided to Metropolitan Sewage Districts (MSD's, Chapter 66.20-26), Joint Sewerage Commissions (Chapter 144.07) and Town Sanitary Districts (Chapter 60.30-.316). All of these special districts have the authority to plan, construct, operate, acquire and maintain solid waste facilities.

The DNR programs in solid waste management cover several major activities. These are direct control through annual licensing for the operation of solid waste facilities with emphasis on the technical adequacy of site and facility design, and issuing compliance orders and taking referral actions. Enforcement also includes the indirect programs of technical assistance, site evaluation, enforcement conferences, and an education and training program.⁶⁶

Evaluation

The Solid Waste Management Program has adequate staffing to regulate solid waste management activities in the State. The staff is an aggressive one, which completes the yearly relicensing of solid waste disposal facilities. The aggressiveness of the program has led to bad publicity from time to time, which compounds the resistance of local groups in finding acceptable new disposal sites. The DNR is increasing its education and public information programs to alleviate this problem.⁶⁷

The management of hazardous wastes is the largest current solid waste management problem in the State. While technology other than land disposal often exists in order to adequately process or dispose of hazardous wastes, the overall coordinated approach to regulating and managing the wastes, and hence to ensuring use of technological alternatives, does not exist. Some limited State controls currently exist, and background information is being developed as part of the non-point source study. However, existing laws and enforcement programs are inadequate in providing for the necessary coordinated and comprehensive program needed to deal effectively with the entire scope of the problem.⁶⁸

The implementation of the county planning and areawide solid waste management systems is moving slowly due to a lack of funding. The establishment of an ongoing funding program for new and continued planning would provide an incentive to examine and implement regional systems where feasible.⁶⁹

3.3.4.2 Liquid Sewage Sludge

Magnitude of the Problem

There are approximately 635 municipalities which provide some type of sewer service and treatment. Each of these systems generates liquid sludge which is disposed of in different ways--some adequate and others inadequate. The total amount of liquid sludge that requires disposal is unknown; however, it can be assumed that it will increase as more complete treatment of sewage is accomplished.

Current Activity

Liquid sewage sludge is controlled in the floodplain and shoreland areas through the Shoreland and Flood Plain Zoning Program (Chapters 59.971, 146.26, and Administrative Code NR 155). In addition, the servicing and disposal of wastes from septic tanks, seepage pits, grease traps and privies is controlled by Chapter 146.20 and Administrative Code NR 113. Recently the DNR has issued a set of internal rules for sludge management. These rules require the owner of a wastewater treatment plan to develop a sludge management plan which can be amended from time to time. The plan should include information on storage, a description of sludge characteristics, and the ultimate disposal site. The DNR evaluates and approves the sludge management plans.

Evaluation

Current control of liquid sewage sludge is only in limited geographic areas and for private systems. Due to this inadequacy, the internal rules for sludge management were adopted. Since these are still very new, it is the Contractor's opinion that it is impossible to tell how effective they will be and if additional controls will be needed. They should, however, provide the DNR with a much more comprehensive information base, so that refinements or additional controls can be developed, if needed.⁷⁰

3.3.4.3 Private Sewage Disposal

Magnitude of the Problem

The control of private sewage disposal systems is of concern to the Natural Resources Board, which in 1976 passed a resolution establishing a 13-member interagency and citizen committee to study several aspects of private wastewater disposal. These included the assessment of water quality and public health problems associated with existing or proposed private waste disposal systems, evaluation of the upgrading of existing systems, installation of alternative systems, the applicability of new technology and the need for further research. This committee completed six months of study in March of 1977 with the publication of a report of its findings.⁷¹

The committee identified the different problems related to private wastewater treatment systems and developed a comprehensive program which would address these problems.

They defined the objective of a well operating septic system as one that is properly designed, installed in suitable soil, and maintained on a regular basis. The report looks at existing statewide sanitary survey data to determine the magnitude and types of septic system problems found throughout the State. Due to the way data is collected in the State, data is available for septic system problems for Grade A certified dairy farms and for commercial establishments which require a license from the Department of Health and Social Services. A survey to estimate the problems from residential or other types of septic systems was also completed.

For the Grade A certified dairy farms in Wisconsin, approximately 1.9 percent had failing septic systems. For the commercial licensed establishments, of those surveyed, 54 percent has septic systems; and of these, 5.65 percent were failing. From different sources, the report estimates that, of all septic systems in the State, 19.2 percent are failing. In addition, it is estimated that the failure rate of septic systems installed in the last five years was 4.6 percent.

In a survey of sanitary code administrators, they asked to rank the causes for septic system failure. On a statewide basis, this priority listing was: 1) tight soils, 2) lack of good maintenance, and 3) age and high ground water. When broken up into the various different DNR Districts throughout the State, these three causes of septic system failure reappeared, although in some districts, the priority was somewhat different.⁷²

Institutionally, the committee found that there is a fragmentation of authority between the DNR, the Department of Health and Social Services, and local jurisdictions.

Current Activities

This section describes the current responsibility and authority for septic system control for the different governmental units involved and

evaluates how they carry out their responsibilities. The section is divided into subsections based on criteria identified by the Committee as necessary for properly designed and installed septic sewer systems.

Establishment of Septic System Standards. The Department of Health and Social Services is responsible for the supervision of all plumbing, which includes on-site waste disposal systems, and must establish and enforce reasonable uniform statewide standards [Section 145.02(2)]. In addition, the Department administers the Administrative Code, Section 62.20, which establishes the sizing, siting, and design criteria for septic systems and requires the submittal of soil test plans and specifications. The Department of Natural Resources must approve all revisions to the Administrative Code, Section 62.20; or the revisions are void [Section 144.025(2)(P)].

With the Department of Health and Social Services having primary responsibility for protecting public health, and the Department of Natural Resources for water quality, this arrangement gives the Department of Natural Resources an umbrella role over the Division of Health in matters related to septic system standards and provides an attempt to coordinate both concerns. The section of the Code 62.20 is mandatory statewide and is the minimum standard from which counties develop their ordinances.

Soil Testing by Certified Soil Testers. Soil tests, required by the Administrative Code H 62.20, must be performed by a certified soil tester. The soil testing certification program is administered by the Department of Health and Social Services, which certifies master soil testers and may revoke or suspend their certification for gross negligence, incompetence or misconduct (145.405). Certification is granted after passing a written examination and is maintained through the payment of fees. Training programs, either before or after certification, are not required, although optional training programs are offered by the Department of Health and Social Services.⁷³

Installation of Septic Systems. Section 145.06 requires that all septic systems must be installed under the supervision of a licensed master plumber. The Department of Health and Social Services administers the licensing program for plumbers and has the authority to revoke or suspend the license [Section 145.02(4) and Section 145.10]. If a master plumber fails to install a system correctly, the Department of Health and Social Services may order the licensed plumber to correct the improper installation at his own expense.⁷⁴

In addition, a State septic tank permit must be obtained before buying or installing a septic tank (Section 146.03). The Department of Natural Resources may prohibit the use of septic tanks in any area of the State where it finds that it would impair water quality. If prohibited, the Department must recommend alternate methods of waste disposal (Section 144.025).

Counties are required to adopt and enforce sanitary ordinances in their flood plain and shoreland areas (Sections 87.30 and 59.971). Counties may adopt sanitary ordinances to enforce county-wide, but these will not apply in

cities, villages, and towns which have adopted their own sanitary ordinances. Generally, the issuance of the State septic tank permits is done by the counties upon receipt of an application and a nominal fee (Section 146.03).

This system of the State establishing standards and a permit system with administration by the counties allows the counties to enforce the regulations if they choose to do so, except in their flood plain and shoreland areas. Thus, there are areas of counties where there is no requirement for them to adopt sanitary ordinances; and, when they don't, septic systems are unregulated despite the fact that they are supposed to meet the standards set forth in H 62.20. 63 counties have chosen to adopt county-wide ordinances, two counties rely on town ordinances, and the remaining seven counties only regulate residential installations in their flood plain and shoreland areas.⁷⁵

The State septic tank permit serves only as a bookkeeping function, and must be issued upon the receipt of a permit application and a nominal fee. There are no minimum performance standards for county sanitary programs. The DNR identified areas where septic tanks should be prohibited because of water quality problems.⁷⁶

Unsewered Subdivision Plats. The Department of Health and Social Services must review and approve all unsewered subdivision plats for compliance with the Septic System Code H 65 (Section 236.13). This review looks at general soil and site information in terms of suitability of the soils to handle septic systems.

Inspections and Surveys of Existing Systems. The Department of Health and Social Services may enter private property and inspect septic systems (Section 145.02). The Department is also required to make sanitary inspections and surveys in all parts of the State and to assist local health officers in conducting annual sanitary surveys (Section 140.07). These inspections by the Department are usually in response to complaints for residential septic systems; but the Department does conduct regular, usually annual, inspections of licensed commercial establishments and Grade A certified dairy farms.

The Department of Natural Resources may make inspections to determine compliance with its rules (Section 144.025). The Department has adopted rules on water quality standards and, therefore, has authority to conduct sanitary surveys in areas near streams and lakes to determine whether or not on-site systems are failing.

County health departments and commissions must make annual sanitary surveys (Sections 141.01 and 141.09). The information is currently not available as to the quality and frequency of these sanitary surveys. These surveys probably vary in number and quality due to manpower restrictions and/or public pressure in the various different counties throughout the State.⁷⁷

Correction of Failing Systems. The Department of Health and Social Services may order compliance with the State standards and may enforce an order by injunction or through other means (Section 145.02). The Department may also order the removal or abatement of a public nuisance and, if the owner fails to comply, enter the property to remove the nuisance (Section 146.13). Any orders that the Department of Health and Social Services issues come through complaints from neighbors and are addressed to the counties who first enforced their sanitary ordinances. If this fails, the violation can be referred to the Department of Health and Social Services for prosecution as a violation of the State Plumbing Code.

The Department of Natural Resources may order the correction of a failing septic system (Section 144.025). In addition, the Department may order a city, village, town, or town sanitary district to construct a corrective system when it finds that the absence of a public sewer service is creating a health or comfort problem.

Servicing Septic Tanks. The Department of Health and Social Services requires that septic tanks be pumped whenever the sludge fills one-third of the tank (Administrative Code H 62.20). The Department of Natural Resources must adopt rules governing septic tank servicing and supervise licensed septic tank pumpers (Section 146.20). To enforce this, the Department of Natural Resources has adopted the Wisconsin Administrative Code NR 113 governing the service of septic tanks and other on-site waste systems. NR 113 requires the annual licensing of septic tank haulers and inspection and certification of the vehicles and equipment. It also sets forth requirements for the disposal of wastes and gives the Department the authority to inspect disposal sites. Land disposal is the most common method of disposal.⁷⁸

Evaluation

As the ad hoc committee's report states, "A septic system should be properly designed and installed on suitable soils and maintained on a regular basis. When it fails, it should be repaired or replaced."⁷⁹ The Department of Natural Resources currently does not feel that the Department of Health and Social Services is aggressive enough in its enforcement. They feel lack of aggression is a result of a limited staff at the Department of Health and Social Services to enforce the regulations. The Department of Natural Resources would like to administer the entire septic tank regulation program. The legislature is currently debating this issue. If the DNR does receive authority over the entire program they will attempt to upgrade the inspection program and the permit requirements.⁸⁰

The ad hoc committee's findings evaluated the septic system problems in detail. Highlights from their evaluation reiterated the problem of limited staff capabilities of the Department of Health and Social Services, which result in a program not aggressive enough to solve the problems related to septic systems. Specifically, the report identified that the Department of

Health and Social Services had never revoked a master plumber's license related to the installation of septic systems, although approximately 200 orders to correct installations were issued per year. In addition, the requirement of issuing a septic tank permit as a bookkeeping function severely limits the effectiveness of the program. The authority that the Department of Natural Resources has to prohibit the use of septic systems has only been used very sparingly, although this authority could be used to prohibit installations on unsuitable soils.⁸¹

Unsewered subdivision plats are a major problem, due to the definition of a subdivision in the legislation. This defines a subdivision as a creation of five or more lots of one and one-half acres each or less. This limits the effectiveness of the review, since a great many lots, possibly with unsuitable soils for septic systems, are created without State review.

The inspection of existing systems is virtually nonexistent. Due to limited manpower, neither the Department of Health and Social Services nor the counties have an active comprehensive inspection or survey program covering residential septic systems. As a result, malfunctioning systems usually go unnoticed until a neighbor complains, by which time the system has frequently become a serious public nuisance. In addition to the lack of a systematic inspection program, county code administrators can be under considerable public pressure to ignore systems which they know are failing.⁸²

The correction of failing systems, once they have been identified, has been very spotty, with complaints of neighbors being the primary system for identification of failing systems, and these going primarily to county code administrators, who, rather than enforcing a fine, try to convince the owner to volunteer to repair or replace the system. This leads to hardship arguments being raised by system owners when they are encouraged to install a new system, which can make it extremely difficult for the county code administrator to pursue the matter. If the owner does not voluntarily correct the problem, the county code administrator usually refers the violation to the county district attorney or corporation counsel. If a settlement cannot be reached, the violation is taken to trial. In most cases, the only sanction available is a fine, with no effective means to force the property owner to correct the system.

The Department of Natural Resources, which has authority to order cities, villages, towns, or town sanitary districts to construct corrective systems, has issued orders to 36 communities to correct health or pollution problems resulting from inadequate or malfunctioning septic systems. Due to the lack of federal funds for these communities, the Department is not currently seeking enforcement of these orders.⁸³

Servicing of septic tanks is important since improper maintenance can result in premature system failure. Although maintenance is required, no institutional mechanism to enforce this requirement has been established.

There are requirements, which must meet DNR standards, for both the land disposal of the waste and the licensing of septic waste haulers. Inspections to insure that these standards are met have been irregular.⁸⁴

3.3.5 Transportation Corridors

Magnitude of the Problem

Transportation affects the quality of surface water through runoff from highways and airports. Oils and salts leaching into adjacent soils, herbicide applications along roadside and railroad sites, and accidental spillage are also a problem. Certain forms of solid waste, such as litter or debris, are also found near highways and railroads; but nutrient loading is seldom an important runoff from transportation.⁸⁵ Wisconsin is considered to have a low level problem with regard to non-point pollution impacts resulting from transportation systems. They are, however, attempting to determine the magnitude of the runoff problem from airports through a sampling program at the municipal airport in Milwaukee.⁸⁶

Current Activities

The runoff from different types of transportation facilities is not directly controlled. Towns (Chapters 60, 66) and counties (Chapter 59) have indirect control through their planning powers.

The Coastal Zone Management Program's proposed Advisory Committee also has an indirect impact on runoff from transportation facilities in the designated coastal zones.

Evaluation

There currently are no controls that directly relate to the water quality impacts of transportation corridors. However, all State and county roads which receive federal funding must provide for control of runoff and erosion, as set by U.S. DOT specifications. These specifications are enforced by the Wisconsin Department of Transportation through their contracting procedures for highway construction.⁸⁷ Due to the lack of adequate information on the magnitude of the problem, it is impossible to identify whether controls are needed. The 208 Program, through the Small Watershed Study Program, should identify the needs for controls for runoff from airports.

3.3.6 Shoreline Landfilling

Magnitude of the Problem

Land or construction excavations and dredging activities have not been identified as being major pollution problems.⁸⁸

Current Activities

Land disturbing activities in the shoreline are controlled at the State and local levels. The State has control through the Shoreland and Flood Plain Zoning Program (Chapter 59.971, 144.26, NR 115), and the Public Inland Lake Protection and Rehabilitation Program (Chapter 33), both of which were described earlier. The programs allow the State to control shoreline activities through the development of standards, the provision of technical and financial assistance, and the assurance that the responsible local units of government enforce the programs. The local units of government which implement the Shoreland and Inland Lake Programs have direct, planning, and indirect controls over activities along the shoreline. In addition, cities and villages have home rule powers, while counties have powers specifically delegated to them to develop and adopt zoning ordinances and subdivision and building code regulations.

Before dredging activities can commence, a plan must be prepared and approved and a permit issued by the Corps of Engineers and the DNR. The DNR requires that an environmental impact statement be written and approved by them before they will issue a dredging permit.⁸⁹

The Coastal Zone Management Program will have an indirect impact on shoreline activities because of the emphasis on improved enforcement of existing regulations. The Program will also have available federal management funds for grants to local and State governmental units to improve their management efforts.⁹⁰

Local units of government also have the power to establish bulkheads and piers if they receive the DNR's approval. This approval is based on standards which have been developed by DNR.⁹¹

Evaluation

The control of construction, land excavations, and dredging activities in the shoreline is one of the stronger programs for the State of Wisconsin, due to the emphasis being placed on the Shoreland and Flood Plain Zoning and the Inland Lake Protection Programs. These programs have adequate staffing at the State level to insure compliance with the regulations, although some of the local governments might have staffing or resource problems in terms of implementation and adequate enforcement of the Shoreland and Flood Plain Zoning Program. The addition of the federal management funds to the Coastal Zone Management Program should help alleviate any problem that exists.⁹²

3.3.7 Extractive Operations

3.3.7.1 Pits and Quarries

Magnitude of the Problem

Pits and quarries are numerous, but their pollution problems are localized.⁹³

Current Activities

There currently are no programs run by the State to control pit and quarry operations in terms of non-point pollution sources. There are, however, permits required under the point source control program for washing operations if these pits and quarries discharge water off their properties.⁹⁴

Evaluation

While there are some localized problems with pits and quarries, the DNR does not feel that this is a significant problem; and no activities to develop statewide controls for pits and quarries are contemplated.⁹⁵ The Contractor was unable to identify any local ordinances that are designed to control non-point pollution from pits and quarries.

3.3.7.2 Mining

Magnitude of the Problem

There currently is very little mining activity in the State of Wisconsin, and mining does not create a water quality problem. However, recent discoveries of large amounts of zinc and copper in Northern Wisconsin could lead to significant water quality problems as they are developed.⁹⁶

Current Activities

In response to the recent finds of zinc and copper in Northern Wisconsin, the State legislature has enacted the Metallic Mineral Mining and Reclamation Act (Chapters 144.36, 144.82, 144.85, 144.87-90 and 144.94). This Act will be implemented by the proposed Administrative Code, Chapters NR 130 and NR 131. The Act and regulations require the development of standards and a comprehensive permit program covering all aspects of mining from prospecting to the reclamation of the land at conclusion of mining activities. In addition, the Administrative Code requires the DNR and the Geologic and Natural History Survey to develop a comprehensive State program identifying mineral resources and their zones of location, and financial incentives to insure the proper development of the mineral resources with the greatest degree of environmental protection and reclamation. The proposed regulations must, under Wisconsin statute, be approved by the Wisconsin legislature before they can take effect. Since there is no immediate demand for action, the DNR is not actively pursuing the adoption of the regulations by the legislature.⁹⁷

Evaluation

The Act that has been passed relating to metallic minerals is a good and comprehensive act, except that it only covers a limited type of minerals that can be extracted from the land. If additional minerals of a non-metallic nature are found within the State, there will be no control over their extraction.⁹⁸

To solve the problem of a lack of a comprehensive mineral program, it is recommended that the State adopt a comprehensive mineral resources policy, to provide for adequate mineral resources management, including identification, reservation, development, mining, and mined land reclamation. This would require an accelerated geological and geophysical program to identify mineral-bearing areas and their economic potential. Along with this identification of potential new deposits, the regulations to guide private industry and government in the development and management of the mineral resources outside the metallic mineral area would have to be developed.⁹⁹

In addition, there currently are no regulations to guide and control offshore mineral and fuel exploration in the Great Lakes.¹⁰⁰

3.3.7.3 Brines From Oil and Gas

Magnitude of the Problem

Brine and gas operations are not of primary importance in Wisconsin due to a limited number of wells.¹⁰¹

Current Activities

No legislation to control the disposal of brines from oil and gas operations has been identified. However, there is a blanket prohibition against any kind of deepwell disposal throughout the State.¹⁰²

Evaluation

Due to the limited number of wells, brines from oil and gas operations are not a significant problem in the State. Therefore, the lack of any kind of legislative controls does not in the Contractor's opinion seem to be a severe handicap.

3.3.8 Recreation Areas

Magnitude of the Problem

This category includes pesticide use and private sewage disposal, both of which were described in earlier sections. The third land use activity, that of runoff that results from specific types of facilities, is not a problem of statewide concern, although it could be a localized problem from time to time. This is primarily an erosion problem that results in the overuse of a specific section of trails, whether from hiking, snowmobiling, or other types of use.¹⁰³

Current Activities and Evaluation

The control of water quality as a result of different recreational activities falls under the more generalized controls given to the local units of government. These are the zoning powers of the general purpose governments,

the shoreland and flood plain zoning program, the building inspection programs, and the Soil and Water Conservation District's programs. The activities of the various different local governments and the controlling of erosion from specific recreational activities has not been identified. This is the kind of activity that the non-point watershed program will identify.

Currently, there are no recreation land use activities creating major environmental problems in the State. The existing controls seem to be adequate, with the proper staff and resources assigned to enforce the legislation. There are variations at the local level which might make the solution for a localized problem difficult. If such a problem occurs in the coastal zone, the Coastal Zone Management Program, with its focus on additional funding and management of existing programs, should help provide a solution to any localized problems.¹⁰⁴

3.3.9 Lakeshore and Riverbank Erosion

Magnitude of the Problem

Erosion from the natural actions of a lake or river, and how to control it has not yet been determined. This includes identification of the relationship between various different land use activities and their indirect impact on lakes and streams. Without such a determination, controls cannot be developed.¹⁰⁵

Current Activities

The Public Inland Lake Protection and Rehabilitation Program (Chapter 33) can address the erosion from natural causes as part of the plan that must be developed for each lake district. Once the causes of erosion have been identified, the district has the authority to control lakeshore erosion and receive technical and financial assistance from the State.

Evaluation

The erosion program for inland lakes is part of a general sedimentation control program for the lake. Therefore there is no differentiation made between lakeshore erosion and the erosion caused from land use activities within a lake district. This makes it virtually impossible to evaluate how effective the Public Inland Lake Protection and Rehabilitation Program is in controlling lakeshore erosion. The Contractor was unable to identify any controls for riverbank erosion in the State.¹⁰⁶

3.3.10 Forested Areas

Magnitude of the Problem

Large forested areas in the State of Wisconsin come under four different types of ownership: private, federal, State, and county, with the largest amount owned by the counties. The water quality problems related to forested

areas are currently unknown. The Department of Natural Resources does not feel that there are any major problems, but that there can be localized problems, especially in relation to timber production.¹⁰⁷

Current Activities and Evaluation

No controls of wildlife management or woodland grazing on State or county lands have been identified from a water quality standpoint. Control of recreational activities is affected by the same controls as discussed in the recreational section.

Timber production in public forests (Chapter 28) is controlled by a set of regulations which require that a permit be obtained prior to the cutting of any timber. To obtain the permit, a plan must be submitted that reflects the work proposed to be done and limits any clear cutting to a maximum of 50 acres. The primary problem comes not from massive clear cutting due to a 50-acre limitation, but from the construction of timber roads and skid trails. The roads and skid trails currently are under no control, but present a localized problem only.¹⁰⁸

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CHAPTER 4

FRAMEWORK ANALYSIS

4.1 GENERAL

This chapter presents the contractor's analysis of the legislative framework for the State of Wisconsin. Included is the identification of the strengths and weaknesses in the framework, and the future actions which could correct the weaknesses. This analysis is based on the evaluation of the different land use activities as presented in Chapter 3.

4.2 STRENGTHS, WEAKNESSES AND FUTURE ACTIONS

The following land use activities are noted for their strengths and weaknesses. This discussion of each of them summarizes the problem, the current framework and its strengths/weaknesses and presents future actions which could correct any weakness.

4.2.1 Urban Construction Site Runoff¹

There currently is a fragmented approach to the control of sedimentation from urban construction site activity. The DNR is taking a hands-off approach, leaving the control responsibility to the local units of government. The local governments practice widely varying degrees of control and enforcement.

There is a coordinated State and local program under the Shoreland and Flood Plain Zoning Program but this covers only limited areas. This program is working well and could be used as a model for developing an urban sediment control program. The key weakness of the Shoreland and Flood Plain Zoning program is the lack of definitive sediment control requirements.

The need is for a coordinated framework in which the DNR and the local governments can jointly develop the specific controls necessary and work cooperatively together.

These controls should be broader than site construction, addressing all earth mining activities. They should require the submittal of a plan of action, issuance of a permit based on that plan, and enforcement inspections to insure that the actions are in compliance with the plan. Methods to remedy problems, through fines or other actions, must also be included.

The State is currently in the second year of a three-year study, in Washington County, which is designed to develop a sediment control act and recommend an institutional structure to implement the act. Current thinking is to change the authority given to Soil and Water Conservation Districts, and make them the regulatory agency to enforce a sediment control ordinance. The sediment control act to be developed will use the Shoreland and Flood Plain Zoning Program as a model. A draft proposal requires the DNR to establish guidelines and the SWCD's to enact local ordinances that must be approved by DNR.² This requires the elimination of the referendum requirement for SWCD's to adopt regulations.

This approach seems to be oriented toward agricultural sediment control, and the contractor questions how well the SWCD's will function in the urban setting. The advantage of the approach is the involvement of the DNR which will insure that minimum standards are met and some enforcement is carried out.

The proposal does not solve the resource problem at the local level unless a State assistance program is included. It is the contractor's understanding that currently this is not contemplated.

4.2.2 Erosion from General Farm Practices³

Currently the sediment problems from farm practices are not well documented. The State is undertaking a program, Washington County Project, designed to document the problem so that controls can be written. The DNR has identified the lack of sediment control as their key legislative weakness.

The program in Washington County is designed to provide the model to be used throughout the State. The anticipated results were described in Section 4.2.1. For agriculture, the program should be effective, especially if it is combined with the cost sharing programs of the USDA Agricultural Stabilization and Conservation Service. Without a cost share feature, implementation will be difficult since some of the requirements will not be cost effective from the farmers viewpoint. There is also a risk that additional requirements will put marginal farming operations out of business.

4.2.3 Animal Feedlots⁴

The DNR estimates the 40% of the dairy farms and an unknown number of other feedlots are creating water pollution problems. The NDR has proposed regulations which failed to be adopted in 1972. As part of its non-point

source program it is conducting an animal waste disposal survey to provide the necessary documentation for the development of the best management practices for animal feedlots. The proposed regulation will be modified or rewritten to provide the regulatory authority for the enforcement of the selected best management practice.

The development of the best management practice will insure a uniform Statewide approach. Implementation will depend on the economic ability of the farmers to pay for any required improvements unless cost share monies and technical assistance are available. The USDA-ASCS program will provide part of this need, the State should review the need for State assistance as well.

4.2.4 Private Sewage Disposal⁵

Currently the control of the design, installation, maintenance and repair of private sewage disposal systems is fragmented between two State agencies and local units of government. The Department of Health and Social Services is the lead State agency with the DNR in a review role. The counties, cities and villages are the enforcement agencies. As discussed in Chapter 3, the Department of Health and Social Services has manpower limitations and is, in DNR's opinion, not aggressive enough in its enforcement of the program. Additional weaknesses are the bookkeeping function of issuing a permit prior to installation and the definition of the size of a lot which is exempt from a review.

The regulatory framework needs to be changed to give the DNR authority over the regulation of private sewage disposal systems and the resources provided to the Department so that the controls are adequately enforced. The permitting of the installation of septic systems should require the meeting of performance standards which should be developed by DNR. Approval of subdivisions should include all lots, not just those that are smaller than the size requirement. These changes will require an aggressive program, including a better effort by DNR to identify areas in the State where septic systems will not work and clearly stated that the systems will not be approved in these areas.

4.2.5 Additional Institutional Improvements

The fragmentation of the private sewage disposal program is an example of the lack of formalized lines of communication and cooperation between agencies that are necessary to effectively implement a non-point regulatory control program. The contractor did not identify any agreements between DNR and other State agencies which would insure that DNR would be able to consider water quality issues associated with the actions of other State agencies. The Wisconsin Environmental Protection Act (WEPA) requires an environmental assessment and/or impact statement on major State actions which allows for water quality issues to be addressed. Agreements and cooperation between agencies should be focused on all of the on-going day-to-day

actions of other agencies that are not covered under the WEPA requirements. The DNR's working relationships with other agencies should be reviewed, and actions should be initiated by DNR to improve those relationships in a positive manner.

4.2.6 Additional Technical Studies

The DNR has identified areas that require additional technical study prior to the determination of the type and need, if any, of controls. These areas are:⁶

- Fertilizers
- Urban stormwater runoff
- Transportation corridors.

FOOTNOTES -- CHAPTER 4

- 1 See discussion of the problem, current activities and evaluation in Section 3.3.2.1.
- 2 Interview, Dr. Carl Range, Washington County Project, May 19, 1977, Madison, Wisconsin.
- 3 See discussion of the problem, current activities and evaluation in Section 3.3.3.4.
- 4 See discussion of the problem, current activities and evaluation in Section 3.3.3.2.
- 5 See discussion of the problem, current activities and evaluation in Section 3.3.4.3.
- 6 See discussions on each of these areas in the following sections: Fertilizers -- Section 3.3.3.3; Urban Stormwater Runoff -- Section 3.3.2.2; Transportation Corridors -- Section 3.3.5.

LEGISLATION

Title or Reference

Enactment Date

Affected Land Use

PART II

SUMMARIES OF LEGISLATION

To change the ...
advance the ...

This chapter presents a summary of the legislative authority for control of land use within the State of California. Where information was available, the legislation is summarized by Act with the enacting agency, effective date, and legislative intent. Where the contractor is unable to secure information regarding legislation, the Act is listed.

The summaries are presented in numerical order based on chapter number.

Chapter	Title or Reference	Enactment Date	Affected Land Use
1	Public Lands	1971	Public Lands
2	State Lands	1971	State Lands
3	County Lands	1971	County Lands
4	Local Government Lands	1971	Local Government Lands
5	Water Resources	1971	Water Resources
6	Highways	1971	Highways
7	Public Utilities	1971	Public Utilities
8	Health and Welfare	1971	Health and Welfare
9	Education	1971	Education
10	Other	1971	Other

CHAPTER 5

RELEVANT LEGISLATION

5.1 GENERAL

This Chapter presents a summary of the legislative authority for control of land use activities that may cause water pollution. Where information was available, the legislation is summarized by Act with the implementing agency, affected land use activity, purpose, provisions and administrative responsibilities identified. Where the contractor is unable to secure information allowing summarization, the acts are listed.

The summaries are presented in numerical order based on Chapter number. A listing of the acts follows:

Chapter 28	Public Forests
Chapter 33	Inland Lakes
Chapter 59	Counties
Chapter 59.971	Zoning of Shorelands in Navigable Waters
Chapter 60	Towns
Chapter 60.20-26	Metropolitan Sewage Districts
Chapter 60.30-316	Town Sanitary Districts
Chapter 62	Cities
Chapter 66	Villages
Chapter 88	Drainage Districts
Chapter 92	Soil and Water Conservation Districts
Chapter 94.60-71	Pesticides
Chapter 144.025	DNR authority
Chapter 144.03	Septic Tank Permits
Chapter 144.07	Joint Sewerage Commission
Chapter 144.36 etc.	Metallic Mining and Reclamation
Chapter 146.20	Servicing Septic Tanks
Chapter 144.43	Solid Waste Management
Chapter 144.46	Shoreland and Flood Plain Zoning
Chapter 15.195	Pesticide Review Board
Admin. Code 102, 103, 104	Water Quality Standards
Coastal Coordinating and Advisory Council	
Proposed Coastal Management Council	
Proposed Coastal Management Program	
Internal Rules for Sludge Management.	

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Statutes Annotated, Chapter 28, Public Forests

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: Timber production

Purpose:

To manage the state forests, collect data relative to forestry use and advance the cause of forestry.

Provisions:

1. Requires that maps and records covering land ownership, planting, cultural cutting, timber sales and special use areas be compiled for each state forest.
2. Requires that plans based on maps and records reflect work with forest inventories and growth studies. These plans should lead to the determination of the allowable annual cut. The Department of Agriculture is required to approve the allowable annual timber cut.
3. States that the primary use of forests is silviculture and the growing of recurring forest crops, with scenic values, outdoor recreation, public hunting, and stabilization of stream flow as extra benefits.
4. Provides the Department with the authority to acquire land or interests in land.
5. Specifies the conditions under which State forest land may be sold.
6. Requires that notice of cutting form be filed with the DNR.
7. Classifies all violations of the code as misdemeanors. Prohibits the resale of forestry stock received from the Department of Natural Resources.
8. A fine of \$40 per thousand feet of timber is imposed for excess cutting.

Administrative Responsibilities:

The Department of Natural Resources is responsible for managing forestry within the jurisdiction of the State and promulgating rules and regulations regarding forestry practices. The Department is also required to set an allowable timber cut limit to curb soil erosion. The DNR is also responsible for preparing a plan for allowable timber harvests.

POLITICAL JURISDICTION: County Forests

Title or Reference: Chapter 28, Public Forests

Implementing Agency: County Board

Affected Land Use Activities: Timber production

Purpose:

To encourage the planned development and management of county forests for optimum production of forest products together with recreational opportunities, wildlife, watershed protection and stabilization of stream flow.

Provisions:

1. Requires the county forestry committee to prepare a comprehensive county forest land use plan. The plan shall include land use designations, land acquisition, forest protection, annual allowable timber harvest, silviculture operations and operating policies and procedures, and a complete inventory of the county forest.
2. Requires the county forestry committee to prepare an annual work plan and budget.
3. Authorizes the county forestry committee to sell merchantable timber designated in timber sale contracts and products removed in cultural or salvage cuttings.
4. Prohibits cutting unless a cutting notice on forms furnished by the DNR has been filed and approved by the Department. Any unauthorized cutting shall render the county liable to the state. If the county does not pay the amount of the penalty to the state, the DNR may withhold such amount from future contributions to the county.
5. The County Forest Committee is created by the enactment of an ordinance, by the County Board, designating a committee to take charge of the county forests.

Administrative Responsibilities:

The County Forest Committee is responsible for establishing regulations for the use of the county forest; providing penalties for the enforcement of those regulations; appropriating funds; engaging in silviculture, forest management and timber sales; preparing a comprehensive county forest land use plan; and entering into agreement, for terms not exceeding 5 years, to prospect for ore or minerals upon any county forest lands.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Chapter 33

Implementing Agency: Department of Natural Resources

Affected land Use Activities: Erosion, dredging

Purpose:

To protect and improve the quality of Wisconsin's inland lakes.

Provisions:

1. Requires the Department of Natural Resources to promulgate rules on administration of financial aid to districts.
2. Requires the Department of Natural Resources to prescribe data to be collected and methods of analysis and evaluation.
3. Requires the Department of Natural Resources to assist the Council in making studies and inventories.
4. Prohibits a district from implementing a plan until it is approved by DNR.

Administrative Responsibilities:

The Department of Natural Resources is responsible for assisting lake districts seeking technical aid in lake rehabilitation and administering a program of financial assistance to local districts. The Department is also responsible for evaluating data collected by local districts and suggesting alternative management plans and approving plans.

POLITICAL JURISDICTION: Public Inland Lake Protection and Rehabilitation Districts

Title or Reference: Chapter 33

Implementing Agency: City, Villages, Town or County Boards, Town Sanitation Districts

Affected Land Use Activities: Erosion, stormwater runoff

Purpose:

To create special purpose units of government (known as Public Inland Lake Protection and Rehabilitation Districts) to undertake a program of lake protection and rehabilitation.

Provisions:

1. Grants district power to provide in-lake treatments such as dredging, aeration, and nutrients inactivation and to abate non-point sources of pollution through erosion control programs, and nutrient diversion.
2. Authorizes districts to: (a) accept gifts and apply for state financial aid; (b) raise revenues through special assessment projects approved by DNR; and (c) issue 10-year promissory notes.
3. Public inland lake protection and rehabilitation districts may be created in four ways: by municipal resolution, by intergovernmental contract, by town board resolution granting district powers to a sanitary district, or by petition to the county board.
4. Does not grant the district authority to levy service charges.

Administrative Responsibilities:

The Commissioners of the Public Inland Lake Protection and Rehabilitation Districts are responsible for: initiating and coordinating research and surveys for gathering data on the lake, related shorelands and drainage basin; planning lake rehabilitation projects; contacting and attempting to secure the cooperation of government officials for the purpose of enacting ordinances, adopting and carrying out lake protection and rehabilitation plans and obtaining any necessary permits, and controlling fiscal matters of the district.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Chapter 33, Section 33.05, Inland Lakes Protection and Rehabilitation Council

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: Erosion, Dredging

Purpose:

To protect and improve the quality of Wisconsin's inland lakes.

Provisions:

1. Creates the Inland Lakes Protection and Rehabilitation Council.
2. Requires the Council to recommend a classification system for the selection of eligible lakes for study and treatment.
3. Requires the Council to recommend standards and guidelines for Lake rehabilitation plans and utilization of any Federal or State funds for rehabilitation or research.
4. Requires the Council to recommend to the Department lakes to be used as benchmarks in measuring induced effects on lake environments.

Administrative Responsibilities:

The Council is responsible for advising the Department of Natural Resources on all matters pertaining to lake rehabilitation and preservation and abatement of pollution of lakes.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Chapter 59

Implementing Agency: Counties

Affected Land Use Activities: Agriculture, Recreation, Shoreline Landfilling

Purpose:

To create a general purpose unit of local government which exercises authority primarily in unincorporated areas of the state. Counties are limited to exercising those powers which are specially conferred upon them by statutes or are necessarily implied in statutes.

Provisions:

1. Counties have the power to adopt a county development plan. The plan must include master plans and official maps adopted by cities and villages in the county.
2. A county may adopt a regional plan for the subdivision of unincorporated land in the county and for the location and improvement of highways and parks.
3. Counties have the authority to adopt zoning ordinances for unincorporated areas. The ordinances may regulate the location of agriculture, industry, business, recreation, residences, mobile home parks, roads and schools; use of the areas along natural watercourses; and density and distribution of population. The county ordinance is not effective until it is approved by the town board.
4. Counties are required to adopt a shoreland zoning ordinance for all lands in their unincorporated areas which are within 1000 feet of the normal highwater elevation of a navigable lake, pond, or flowage. They are also required to adopt flood plain zoning ordinances. Town Board approval is not required for the adoption of county shoreland and flood plain ordinances.
5. Counties are also granted authority to adopt building and sanitary codes. These codes do not apply to cities, villages or towns which have adopted ordinances or codes concerning the same matter.
6. Counties are granted subdivisions and plat approval authority for their unincorporated areas.

7. The county has no authority to condition its approval of plats on other requirements. Only cities, villages, and towns have the authority.
8. The county has the power to establish bulkheads and pier head lines along with the approval of DNR and to regulate boating in the vicinity of a county marina.
9. Counties have the authority to:
 - a. accept grants for any public governmental purpose within their powers;
 - b. levy special assessments for dams, dock and shore protection walls and, with the prior consent of the landowners, for other improvements;
 - c. charge fees for use of dams on county lands, parks, recreation areas, county equipment for drainage and control work;
 - d. issue contractors' certificates, special assessment bonds and general obligation bonds.

Administrative Responsibilities:

A county board is responsible for: (a) preparing and adopting county solid waste plan; (b) creating a planning and zoning committee which is responsible for preparing the physical development plan; (c) adopting zoning ordinances which apply to unincorporated parts of the county; and (d) enforcing county zoning ordinances.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Statutes: Chapter 59.971, Zoning of Shorelands in Navigable Waters; Chapter 144.26 Navigable Waters Protection Law: Administrative Code: Chapter NR 115, Shoreland Management Program

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: Land or construction excavations, dredging activities, recreation, private waste disposal systems, site runoff

Purpose:

To protect the shoreland and to further maintain safe and healthful conditions; prevent and control water pollution; protect spawning grounds, fish and aquatic life; control building sites, placement of structures and land uses; and reserve shore cover and natural beauty.

Provisions:

Chapter 59.971

1. Authorizes the Department of Natural Resources to adopt a zoning ordinance, after notice and public hearing, within any county that fails to have an ordinance that meets reasonable minimum standards in accomplishing shoreland protection.

Chapter NR 115

2. Requires that zoning provisions provide sufficient control of the use of shorelands and that each provision includes the following: lot size, building setbacks, trees and shrubbery, filling, grading, lagooning and dredging.
3. Requires the Department to issue a certificate of compliance when a county has complied with established standards.
4. Requires the Department of Natural Resources to prepare a comprehensive plan that will act as a guide for the application of municipal ordinances regulating navigable waters and their shorelands. The plan is to be based on a use classification of navigable waters and their shorelands and shall be governed by the following general standards:
 - a. Domestic use is generally preferred.

- b. Uses not inherently a source of pollution within an area shall be preferred over uses that are or may be a pollution source.
 - c. Areas in which the existing or potential economic value of public, recreational or similar uses exceeds the existing or potential economic value of any other use shall be classified primarily on the basis of the higher economic use value.
 - d. Use locations within an area tending to minimize the possibility of pollution shall be preferred over use locations tending to increase the possibility.
 - e. Use dispersions within an area shall be preferred over concentrations of uses or their undue proximity to each other.
5. Requires the Department to prepare and provide municipalities with recommendations for standards and criteria for navigable water protection studies, plans and regulations. The standards and criteria shall give particular attention to:
 - a. Boating and water sports.
 - b. The capability of the water resources.
 - c. Requirements necessary to assure proper operation of septic tank disposal fields near navigable waters.
 - d. Building setbacks from the water.
 - e. Preservation of shore growth and cover.
 - f. Conservancy uses for low lying lands.
 - g. Shoreland layout for residential and commercial development.
6. All regulations apply to lands under, abutting or lying close to navigable waters.
7. Requires the Department to serve as a clearinghouse for information relating to water resources, including referring citizens to appropriate sources for advice and assistance in connection with particular water use problems.
8. Authorizes shoreland zoning.

Administrative Responsibilities:

The Department of Natural Resources is responsible for making studies and establishing policies and plans for the efficient use, conservation, development and protection of state water resources. The Department is also responsible for collecting and disseminating information to citizens and local units of government with regard to the state's water resources.

Based on the standards, policies and plans of the state, the counties must enact zoning ordinances. These ordinances must be certified by the state. If a county does not comply, then the state must adopt a zoning ordinance for that county.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Chapter 60, Chapter 66

Implementing Agency: Towns

Affected Land Use Activities: Erosion, stormwater, site runoff, recreation

Purpose:

To create a general purpose unit of government that provides a wide variety of services.

Provisions:

1. Town governments have jurisdiction in unincorporated areas.
2. Towns are provided with limited home rule powers and therefore must rely on specific grants of authority.
3. Towns are authorized to engage in natural resource conservation and watershed protection work.
4. A town in a county with a population of 150,000 may provide storm sewers along any portion of a street upon receipt of a petition signed by 2/3 of the affected landowners. Upon receipt of a petition signed by the majority of landowners, any town may create a town sanitary district.
5. Towns may exercise zoning powers if the county has not adopted a zoning ordinance.
6. Towns have the power to veto county zoning and influence the development of city and village extraterritorial zoning which affects the town.
7. The town board must approve any county zoning ordinance before it may become effective in the town.
8. Any city or village extraterritorial zoning ordinance affecting the town must be approved by a majority of a joint zoning committee.
9. Towns have the authority to approve or disapprove plats, to regulate the subdivision of land, and to adopt and enforce building codes and sanitary codes.

10. Towns have the power to (a) accept grants from the federal government or from the industrial, commercial or other establishment; (b) accept grants from the State government for nonpoint source pollution abatement if the State's financial assistance program for water resources protection includes funds for nonpoint source projects and the DNR rules were changed to permit the use of such funds for nonpoint purposes; (c) levy special charges and assessments for lake improvement and soil conservation; (d) levy special assessments on the same projects also assessed by village boards; (e) raise money through taxation for natural resource conservation work, watershed protection projects, lake improvement and the promotion of soil and water conservation programs; and (f) borrow money for long-term projects.
11. A town may enforce its zoning ordinances with penalties and fines for violation.
12. A town in a county which has adopted a county zoning ordinance may only adopt a town zoning ordinance if either: (a) a town is vested with village powers and the county board and town electors approve the ordinance, or (b) the town participates in a regional planning program and the ordinance conforms to the regional plan and is approved by the county and town electors.
13. A town may form either a utility district(s) or a town sanitary district to provide sewerage services to the town.

Administrative Responsibilities:

A town is responsible, in a county which has not adopted a county zoning ordinance, for adopting and enforcing zoning ordinances, building regulations, offensive industry regulations, an official map, bulkhead and pier head regulations, boating regulations, and set-backing building lines.

A town is also responsible for constructing, treating, improving and/or repairing any harbors, turning basins, slips, canals, waterways, dams across any lakes or streams, lakes, and storm sewers.

POLITICAL JURISDICTION: Metropolitan Sewerage District (MSD)

Title or Reference: Chapter 66, Sections 66.20-66.26

Implementing Agency: Municipalities, Department of Natural Resources

Affected Land Use Activities: Stormwater runoff, solid waste

Purpose:

To create a Metropolitan Sewerage District to provide sewage and industrial waste disposal.

Provisions:

1. Provides authority to manage solid waste disposal if the county involved approves. Once the county approves an MSD may exercise all of the solid waste management powers granted to counties.
2. Provides authority to MSD to construct, operate, acquire and maintain solid waste facilities and adopt when necessary regulations under 59.07.
3. Authorizes the MSD use of grants, property taxes, and service charges. There are no provisions allowing MSD's to levy special assessments or incur indebtedness. The deficiency may be eliminated if an MSD can take advantage of other powers granted in Sections 66.20-66.26. However, in the case of long-term borrowing, municipal bonds are the only type of long-term bond not specifically limited to financing sewerage systems.
4. Provides MSD's with the power to enforce the solid waste part of the plan through their authority to enact and enforce ordinances and provide forfeitures for violations.
5. A district may also collect and treat, dispose of, or recycle storm water.
6. Any municipality may initiate proceedings for the formation of a Metropolitan Sewerage District. The municipality must adopt and transmit to DNR a resolution setting forth the proposed name, boundaries, and functions of the district. The DNR must give notice and hold a hearing on the resolution before ordering or denying the creation of a district.

Administrative Responsibilities:

The Metropolitan Sewerage District Commission is responsible for carrying out the necessary services for the district, which include: preparing and adopting plans and standards for all projects and facilities, adopting rules and regulations with regard to the supervision, protection, and maintenance and use of the systems and facilities operated by the district, submitting an annual report of transactions and expenses and constructing, operating, and maintaining the solid waste facilities and storm sewers.

POLITICAL JURISDICTION: Town Sanitary District (TSD)

Title or Reference: Chapter 60:30-60:316

Implementing Agency: Town Board, Department of Natural Resources

Affected Land Use Activities: Stormwater runoff, private sewage disposal, solid waste

Purpose:

To create a special purpose unit of government to provide sewerage, storm water and refuse disposal services and chemical treatment of aquatic nuisances.

Provisions:

1. Provides TSD's with the authority to plan, acquire, construct, operate, maintain, and assure equitable charges for refuse disposal facilities and storm sewers.
2. Grants TSD's the power to: (a) finance waste treatment services; (b) accept grants from the state or federal government or from commercial, industrial or other establishments; (c) raise revenues through service charges assessments and taxation; (d) employ a variety of methods to incur short- or long-term indebtedness; (3) borrow money temporarily for emergency purposes; (f) issue short-term bond anticipation notes prior to issuing mortgages bonds; (g) borrow money for longer periods of time by issuing bonds, certificates, and special assessments.
3. Requires installation of private sewerage systems in unsewered areas.
4. Authorizes TSD's to provide storm sewers, refuse collection and disposal services. TSD's may deal with storm water by providing storm sewers. However, they are not authorized to treat, recycle, or dispose of storm water in any other way.
5. Empowers TSD's to provide garbage or refuse disposal rather than solid waste management. Refuse is not defined in a broad enough way to include agricultural non-point sources of pollution.
6. Does not provide TSD's with the authority to make service charges for storm sewers or the disposal of any type of refuse except garbage.
7. Authorizes TSD's to provide sewers and refuse disposal in unincorporated areas.

8. A town board may create a town sanitary district upon receipt of a petition requesting the establishment of the district. The petition must be signed by at least 51% of the landowners or the owners of at least 51% of the land within the proposed district.

Administrative Responsibilities:

The Town Sanitary District Commission is responsible for planning, acquiring, constructing, maintaining and assuring equitable charges for refuse disposal and storm sewers. They are also empowered to make necessary rules and regulations and issue orders.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Chapter 62, Powers of a City

Implementing Agency: Cities

Affected Land Use Activities: Urban, Solid Waste, Shoreline Landfilling,
Recreation

Purpose:

To create a general purpose unit of government with home rule powers.

Provisions:

1. Cities have general powers to manage and control navigable waters, except as otherwise provided by law.
2. Cities under their home rule powers may act in the interest of the health, safety, welfare and convenience of the public. Their powers are to be construed liberally.
3. Cities specifically have powers to provide drains, canals, dams, and shore protection walls, and to alter, widen or straighten watercourses. They may also control weeds, make improvements in lakes and streams, and acquire land and water rights.
4. Cities may provide garbage and rubbish disposal.
5. Under their home rule and general powers cities may provide sewers whether they are sanitary or storm sewers. This power is not specifically provided.
6. Cities have planning power. The master plan for the development of the city may include, among other things, the location of waterways and storm sewers.
7. No permit for construction of a building may be issued unless a street providing access to the building has been placed on the official map.
8. Cities have zoning powers. The zoning regulations must be made in accordance with a comprehensive plan and must be designed, among other purposes, to prevent overcrowding in order to promote the health and general welfare.

9. Cities may exercise extraterritorial zoning powers in the surrounding unincorporated areas, which lie within a mile and a half of the corporate limits for fourth class cities, while cities of the first, second and third classes may exercise extraterritorial zoning powers within three miles of their limits.
10. A city has extraterritorial power to regulate, subject to town board approval, garbage and refuse disposal sites located in the unincorporated area within one mile of its boundaries.
11. A city is required to enact and enforce a reasonable and effective flood plain zoning ordinance. If the city fails to adopt such an ordinance, DNR is required to develop a flood plain zoning ordinance for the city.
12. A city has the power to approve or disapprove plats for the subdivision of land in the city and within its territorial zoning jurisdiction. A city may adopt subdivision regulations which are more restrictive than those in the statutes and which cover subdivisions which are not regulated by statutes.
13. A city may use its power and bulkhead and pier head lines and dam construction to control filling and other alterations to navigable waters.
14. A city may adopt regulations concerning the use, equipment or operation of boats as long as these regulations are in strict conformity with the state statutes and DNR rules. Any regulation is not valid unless all towns, cities and villages having jurisdiction on the waters of the lake have enacted identical local regulations.
15. Cities of the third and fourth classes may create utility districts for the purpose of providing storm sewers and financing them by taxes levied.
16. To become a city, an isolated area must contain at least one square mile and have a resident population of 1,000 with a density of at least 500 people in any one square mile. In a metropolitan area, it must have at least three square miles and a resident population of 5,000 with a density of at least 750 people in any one square mile. And where a proposed boundary of a first class city or within five miles of a second or third class city, the minimum area requirement is six miles.

Administrative Responsibilities:

Cities are responsible for making improvements on and constructing, repairing, and maintaining harbors, turning basins, slips, canals, waterways, dock walls, shore protection walls, dams across lakes or streams, storm sewers and other

drainage improvements. Cities are also responsible for establishing an official map, and adopting and enforcing zoning and subdivision ordinances, building codes, offensive industry regulations, boating regulations and bulkhead and pier head lines.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Chapter 66

Implementing Agency: Villages

Affected Land Use Activities: Stormwater, erosion, shoreline landfilling, recreation

Purpose:

To create a general purpose unit of government with a broad range of general and specifically enumerated powers.

Provisions:

1. Villages have the power to manage and control navigable waters except those otherwise provided by law.
2. Villages are specifically granted the power to provide storm sewers, drains, canals, dams and shore protection walls, and to alter, widen or straighten watercourses.
3. Villages may also control weeds and make improvements in lakes and streams.
4. Villages may provide garbage and rubbish disposal for residences and industries and they may do soil conservation work on private property.
5. Villages have planning powers. A plan commission of the village must prepare and adopt the master plan for the physical development of a village. The plan may include, among other things, the location of waterways and storm sewers.
6. Villages have zoning powers. Zoning regulations must be made in accordance with a comprehensive plan and designed to prevent overcrowding, to promote public health and general welfare, and to encourage the most appropriate use of land throughout the village.
7. Villages may exercise extraterritorial zoning powers in the unincorporated areas which lie within one and a half miles of its corporate limits. They also have extraterritorial power to regulate, subject to the town board approval, garbage and refuse sites.

8. Villages are required to enact and enforce reasonable and effective flood plain zoning ordinances.
9. A village has the power to approve or disapprove plans for subdivision of land in the village and within one and a half miles of the village limits. Further, a village may adopt subdivision regulations which are more restrictive than those in the statutes and which cover subdivisions which are not regulated by the statutes.
10. A village may use its power to establish a bulkhead and pier-head lines and to authorize dam construction to control filling and other alterations to navigable waters.
11. A village is authorized to adopt local regulations concerning the equipment, use or operation of boats. Any local boating regulation is not valid unless all towns, villages and cities having jurisdiction on the waters of a lake have enacted identical legislation.
12. Villages are authorized to: (a) accept grants for water protection and pollution abatement from the state and federal governments and from commercial, industrial, and other private establishments; (b) levy taxes and special assessments.-- specifically a village may levy special assessments for garbage and refuse collection, shore protector walls and dams; (c) borrow money temporarily or for periods of no more than 10 years for any work; (d) issue bonds; (e) use tax money to pay for garbage and refuse collection and for parts of the cost of dams and shore protection walls.

Administrative Responsibilities:

A village board is responsible for managing and controlling village property, finances, highways, streets, navigable waters. The board implements the village's powers through license, regulation, fine, imprisonment, and other necessary methods. The village board is also responsible for enacting zoning ordinances and regulations (i.e., building) as well as official maps. A village plan commission, which may be created by the village board, is responsible for making and adopting the master plan.

POLITICAL JURISDICTION: Drainage Districts

Title or Reference: Chapter 88

Implementing Agency: County Court

Affected Land Use Activities: Drainage

Purpose:

To create a special purpose unit of government to promote the drainage of wet agricultural land.

Provisions:

1. Provides the county drainage board the authority to plan, design, construct, and maintain drainage works.
2. Allows the board to accept grants from the federal government under its power to enter into contracts to accept the benefits of any federal law relating to flood prevention or the conservation, development, utilization and disposal of water.
3. Allows the county drainage board to raise revenue through special assessments on property benefited by drainage work in the district, issue bonds or notes with the approval of the court and borrow money for long or short time periods.
4. Encourages the county drainage board to consider environmental side effects when making recommendations on the organization of drainage districts and the design of the drainage works.
5. Requires the board to secure a permit from DNR for any work which involves navigable waters.
6. To create a drainage district, the owners of more than half the land in the proposed district or the majority of the landowners owning at least one-third of the land may petition the county court. The court must refer the petition to the county drainage board and DNR before approving the petition.

Administrative Responsibilities:

In the drainage districts under its jurisdiction a county drainage board is responsible for: (1) the design and lay out of drains and assessment of benefits and charges to the district benefited; (2) with the consent of the court, the purchase or lease, and maintenance and operation of the equipment and

NATURAL RESOURCES: Soil and Water Conservation Districts

machinery necessary to construct, maintain or repair drains; (3) with the consent of the court, the purchase, construction and operation of all levees, bulkheads, reservoirs, silt basins, holding basins, floodways, floodgates; (4) with the consent of the court, the purchase or condemnation of lands which are necessary for the construction, cleaning out, repair and maintenance of the drainage system; (5) leveling or permitting the leveling of spoil banks and excavated materials to allow cultivation or use for roadway; (6) taking necessary actions for the protection and preservation of all works and properties and collecting for futures; (7) entering into agreements with the federal government to permit drainage of federally-owned or occupied lands; and (8) with the consent of the Board of Soil and Conservation District, entering into contract with the federal government to accept benefit of any federal law pertaining to flood prevention or the conservation, development, utilization and disposal of water.

1. The Board of Soil and Conservation Districts shall have the authority to...
2. The Board of Soil and Conservation Districts shall have the authority to...
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POLITICAL JURISDICTION: Soil and Water Conservation Districts

Title or Reference: Chapter 92

Implementing Agency: County Board of Supervisors

Affected Land Use Activities: Site runoff erosion

Purpose:

To create special purpose units of government with responsibilities for soil conservation, water resources conservation and development, and flood and sediment drainage prevention.

Provisions:

1. Authorizes SWCD to develop plans for the conservation of soil, water, and related resources. These plans must not be at variance with any plans for a county adopted by a regional planning agency.
2. Provides SWCD with the authority to construct works for the improvement, prevention and the control of floods, and for the conservation of navigable or non-navigable water. These works may include, without limitation, sedimentation basins, terraces, dikes, and ponds, methods of cultivation, growing of vegetation and changes in land use.
3. Authorizes SWCD's to develop plans and provide technical assistance for the control of erosion, runoff and sedimentation in cities and villages at their request.
4. Allows SWCD's to cooperate, enter into an agreement with, and provide financial or other aid to governmental agencies or private landowners.
5. Allows SWCD's to participate in federal or state programs for natural resources and may take over and administer or manage the project.
6. SWCD's also have the authority to propose land use regulation in part or all of the unincorporated areas of the county. These regulations must be adopted by the county board and approved in a referendum.
7. SWCD's have authority to initiate court action to require violators of regulations to comply. The violator is subject to expense of the work plus interest and court costs.
8. SWCD's are also allowed to: (a) accept gifts or contributions; (b) set up cost sharing programs with State Board of Soil and Water Conservation Districts and the state Department of Natural Resources; (c) receive

income from their property; (d) receive funds from local county board and/or town board; and (e) borrow money.

9. Each county board of supervisors may create a soil and water conservation district by simply passing a resolution declaring their county to be an SWCD. This resolution may be adopted at a regular or special county board meeting.

Administrative Responsibilities:

SWCD's are responsible to develop plans and provide technical and financial assistance to carry out programs to construct works of improvement. For soil conservation, water resources conservation and development, and flood and sedimentation drainage prevention, SWCD's are also responsible for formulating regulations as to the use of the land in the interest of controlling erosion, runoff and sedimentation.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Statutes 94.60, 94.67-94.71 (1972) as amended (Supp. 75); Administrative Code Chapter Ag 29, Pesticide Use Control

Implementing Agency: Department of Agriculture

Affected Land Use Activities: Application of Pesticides

Purpose:

To control adverse environmental effects resulting from the use of pesticides within the State.

Provisions:

Chapter 94.60, 94.67-71

1. Authorizes the Department of Agriculture to adopt rules for regulating the labeling, use, sale, distribution and storage of pesticides.
2. Requires annual registration of every pesticide distributed, sold or offered for sale within the State.
3. Registration may be revoked if a particular pesticide is found to be an excessive hazard.
4. Violator, if convicted, subject to a minimum fine of \$100 to \$200 and/or 30 days imprisonment for the first violation and 90 days imprisonment for subsequent violations.
5. Describes application procedure and information required to register pesticides.

Chapter Ag 29

6. Lists pesticides prohibited from use, registration, possession, purchase and sale.
7. Lists those pesticides restricted in use and that may be registered and sold for specified purposes.
8. Lists those pesticides that can be used by permit only and may be registered and sold in accordance with provisions of the law.

9. Authorizes the Department to use pesticides under emergency conditions.
10. Details the requirements and procedures for applying for a permit.
11. Requires the registrant to submit a report to the Department as to the quantity of each pesticide used.
12. Details methods of storing pesticides.
13. Details the application, use and disposal of pesticides.

Administrative Responsibilities:

The Department of Agriculture is responsible for adopting and enforcing rules and regulations as to the use, method of application and registration of pesticides.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Chapter 144.025

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: All activities

Purpose:

To grant necessary powers and to organize a comprehensive program under a single State agency for the enhancement of the quality, management and protection of all waters of the State, ground and surface, public and private.

Provisions:

1. Establishes the Department of Natural Resources and provides the Department with broad powers to oversee all aspects of Wisconsin water law.
2. Requires the Department to formulate a long-range, comprehensive State water resources plan for each region.
3. Authorizes the Department to set standards for water quality and for pollution abatement systems.
4. Provides the Department with the power to investigate and inspect for violations of its standards and orders.
5. Provides authority to the Department of Natural Resources to prohibit the installation or use of septic tanks.

Administrative Responsibilities:

The Department of Natural Resources is responsible for developing, implementing, and administering a comprehensive water resource plan for each of the State's twelve regions; establishing water quality standards; promulgating rules and regulations with regard to construction, installation, use and operation of practical systems for preventing water pollution; making investigations and inspections to insure compliance with any general or special order; requiring the submittance and approval of plans for the installation of devices for handling, treating, or disposing of wastes; ordering or causing the abatement of any nuisance affecting waters of the State ss. 146.13 and 146.14; and administering the permit system for limiting the use of well water.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Statutes, Chapter 144, Section 144.025(3)
(Water, Ice, Sewage and Refuse, amended by Senate
Bill 866, Laws of 1971)

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: All activities

Purpose:

To create a technical advisory committee to the Department of Natural Resources.

Provisions:

Creation of the State Water Resources Advisory Board.

Administrative Responsibilities:

The State Water Resources Advisory Board is responsible for advising the Department of Natural Resources on setting water quality standards and other State waste problems.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Statutes, Chapter 144, Section 144.025(3)

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: All Activities

Purpose:

To create a regional advisory board to the Department of Natural Resources on regional water quality standards and other waste problems of the region.

Provisions:

Creation of Regional Advisory Board.

Administrative Responsibilities:

The Regional Advisory Board is responsible for advising the Department of Natural Resources on water quality standards and other waste problems of the region, fostering education programs, acting as liaison to the public for the Department of Natural Resources, and aiding in fostering the development of sanitary districts.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Septic Tank Permits, Section 144.03

Implementing Agency: State Board of Health

Affected Land Use Activities: Private Sewage Disposal Systems

Purpose:

To regulate the design and installation of individual family sewage systems.

Provisions:

1. A permit is required prior to the purchase or installation of a septic tank.
2. No retailer is allowed to sell a septic tank for installation unless the purchaser displays a permit.

Administrative Responsibilities:

The County Clerk, the County Zoning Administrator, and/or other persons designated by the State Board of Health, are responsible for issuing permits.

POLITICAL JURISDICTION: Joint Sewerage Commission

Title or Reference: Section 144.07

Implementing Agency: Towns, villages or cities, Department of Natural Resources

Affected Land Use Activities: Solid waste, stormwater, site runoff

Purpose:

To create a special purpose unit of government to plan, construct and administer sewerage facilities owned by two or more governmental units. They also provide storm sewers and solid waste disposal facilities and services.

Provisions:

1. Provides authority to protect, plan, construct, and maintain intercepting and other main sewers for the collection and disposal of stormwater provided that the stormwater sewers are separate from the sanitary sewers.
2. Provides authority to plan, project, construct and operate solid waste disposal works or contract with counties or municipalities, which have solid waste disposal facilities.
3. Does not authorize the Commission to deal with manure and other agricultural wastes under their solid waste powers. Solid waste, in this section specifically excludes solids or dissolved materials in wastewater effluent or other common water pollutants.
4. Authorizes the Joint Sewerage Commission to raise revenues, incur indebtedness and accept grants under their general authority to proceed as a city council or board of public works.
5. Subjects all bonds issues and appropriations to approval of the member governmental units.
6. Charges the member governmental units for their proportionate shares of the cost of storm sewers and solid waste disposal facilities.
7. Allows joint treatment of sewage to arise from a DNR order or from a voluntary agreement among the governmental units. A Joint Sewerage Commission is formed by voluntary agreement of two or more governmental units.

Administrative Responsibilities:

The Joint Sewerage Commission is responsible to project, plan, construct, and maintain intercepting and other main sewers for the collection and disposal of storm water and solid waste disposal facilities.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Statutes, Chapter 144.36, 144.82, 144.85, 144.87-90, 144.94; Proposed Administrative Code Chapter NR130, NR131, Metallic Mineral Mining and Reclamation

Implementing Agency: Department of Natural Resources, Geologic and Natural History Survey, Department of Justice

Affected Land Use Activities: Mining

Purpose:

To provide that the air, lands, waters, fish and wildlife affected by prospecting or mining will receive the greatest practical degree of protection and reclamation.

Provisions:

Chapter 144

1. Requires rules with regard to discovery and implementing mining operations.
2. Establishes minimum qualifications for prospecting and mining permits.
3. Establishes minimum standards for prospecting, mining and reclamation. The standards may classify activities according to type of minerals involved and stage of progression in the operation. Minimum standards should be applicable to:
 - a. grading and stabilization of excavation, sides and beaches;
 - b. grading and stabilization of deposits of mine refuge;
 - c. stabilization of merchantable by-products;
 - d. adequate diversion and drainage of water from the site;
 - e. backfilling;
 - f. adequate covering of all pollutant-bearing minerals or materials;
 - g. removal and stockpiling, or other measures to protect topsoils prior to mining;
 - h. adequate vegetative cover;

- i. water impoundment;
 - j. adequate screening of the project site.
4. Requires the Department of Natural Resources and the Geological and Natural History Survey to submit to the Governor and State legislature a comprehensive State program of mineral resources zoning and financial incentives.
5. Provides the Department with the power to hold hearings.
6. Provides the Department with the authority to take such actions as are necessary for the reclamation of abandoned project sites.
7. Prohibits mining or reclamation at any project site without a permit and written authorization.
8. Provides the Department of Natural Resources with the authority to issue and cancel prospecting and mining permits.
9. Requires each applicant for a mining permit to:
 - a. furnish a detailed map of the site;
 - b. furnish a description of the site;
 - c. furnish a detailed reclamation plan;
 - d. conform to the comprehensive plan and zoning requirements;
 - e. estimate the cost of the project; and
 - f. furnish a description of the contiguous land area.
10. Authorizes the Department to deny a permit.
11. Requires the operator to furnish the Department with a report for each project site every twelve months after issuance of permit, within 30 days after completion of all mining at the project site and within 30 days after completion of the reclamation plan.
12. Requires operators to file with the Department of Natural Resources a bond conditioned on faithful performance of all requirements of S. 144.80 to 144.94.

13. Authorizes bond to be furnished by a licensed surety company. In lieu of the bond, the operator may deposit cash, certifications or government securities.
14. Requires applicant to submit a certificate of insurance certifying that the operator has in force a liability insurance policy.
15. Allows the Department of Natural Resources, upon approval, to issue a written authorization to commence mining.
16. Allows the Department to reevaluate and adjust the amount of the bond no sooner than three years after its date.
17. Allows operator to apply for an amendment or cancellation of a mining permit due to a change in the plan by submitting a form identifying the change.
18. Allows the Department of Natural Resources to release the operator's bond after inspection of the site.
19. Requires all orders issued, fines incurred, bond liabilities incurred or other violations be enforced by the Department of Justice.
20. Subjects any person who makes or causes to be made in any application or report a statement known to be false or misleading to a fine of not less than \$100 nor more than \$1,000.
21. Subjects any person holding a permit who violates the law, orders or rules to a fine of not less than \$10 nor more than \$5,000 for each application.
22. Allows any person aggrieved by any decision to obtain a review.

Chapter NR 130

23. Requires all persons constructing drillholes for the purpose of determining the existence, quality and quantity of metallic ore to notify the Department of Natural Resources.
24. Requires any person(s) engaging in prospecting to secure a permit issued by the Department of Natural Resources.
25. Describes the application procedure and the information required for applying for a prospecting or mining permit.

26. Allows the Department of Natural Resources to determine what plan approvals and/or permits are required. The Department of Natural Resources is required to give notice within 15 days following receipt of project information.
27. Details the conditions upon which a prospecting permit is issued.
28. Details the conditions upon which the Department of Natural Resources may deny a prospecting permit.
29. Allows any duly authorized officer, employee or representative of the Department to enter and inspect a particular site.

Chapter NR131

30. Details the information and fee requirements for applying for a mining permit for a proposed project site.
31. Requires an application for a permit to be reviewed by the Department of Natural Resources to determine whether an environmental impact report is necessary.
32. Requires all operators of a nonconforming project site to file an application for a mining permit which should include a description and detailed maps of the project; an assessment of the physical conditions of the site; a report that discusses the meteorological, climatic, scenic, historical and archeological characteristics of the proposed site, a timetable; a certificate of insurance; a description of the contiguous plan and a reclamation plan.
33. Requires each mining permit application to include a detailed mining and reclamation plan.
34. Describes application procedures for obtaining permits for new or reopened projects or nonconforming project sites.
35. Details bond requirements, procedures for securing a bond, bond releases and insurance.

Administrative Responsibilities:

The Department of Natural Resources is responsible for ensuring the protection of air, lands, waters, plants, fish and wildlife affected by prospecting or mining; establishing minimum qualifications for mining and prospecting permits and standards for mining and prospecting; and promulgating rules and regulations. Duties also involve issuing permits. Geological and Natural History Survey, with

the Department of Natural Resources is responsible for developing a comprehensive plan. All occupational health and safety laws and rules that apply to mining are exclusive responsibility of the Department of Industry, Labor and Human Relations.

25. Details the conditions upon which a prospecting permit may be issued.
26. Details the conditions upon which the Department of Natural Resources may deny a prospecting permit.
27. Allows any duly authorized officer, employee or representative of the Department to enter and inspect a particular site.
28. Details the information and fee requirements for applying for a mining permit for a proposed project site.
29. Details an application for a permit to be reviewed by the Department of Natural Resources.
30. Details the requirements for a permit to be issued by the Department of Natural Resources.
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35. Details the requirements for a permit to be issued by the Department of Natural Resources.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Statutes, Chapter 146.20, Servicing Septic Tanks, Seepage Pits, Grease Traps and Privies; Administrative Code Chapter NR113

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: Private Sewage Disposal System, Liquid Sewage

Purpose:

To protect the public health against the hazards of unsanitary and unhealthy practices and controls.

Provisions:

Chapter 146.20

1. Requires persons before engaging in the business of servicing septic tanks, seepage pits, grease traps or privies to acquire a license for each vehicle used in business.
2. Requires a surety bond covering period for which a license is issued.
3. Authorizes the Department to suspend or revoke a license.
4. Subjects any person who violates the statute to a fine of not more than \$100 or imprisonment for not more than 30 days.

Chapter NR113

5. Details the requirements and application procedures for obtaining a license to service septic tanks, industrial or domestic waste holding tanks, seepage pits, grease traps, or mobile public toilets.
6. Discusses inspection procedures and certification of all vehicles, and equipment requirements.
7. Details the requirements for disposal of domestic wastes.
8. Details the requirements for disposal of liquid industrial wastes.
9. Subjects any person who fails to secure a license or certificate sticker to prosecution and penalties.

Administrative Responsibilities:

The Department of Natural Resources is authorized to revoke or suspend a Wisconsin sanitary license.

Chapter XVII
Sewage Pits, Grease Traps and Filters; Administrative Code
Title of Act
Wisconsin Statutes, Chapter 100

Implementing Agency: Department of Natural Resources
Affected Land Use Activities: Private Sewage Disposal System, Liquid Sewage
Purpose:
To protect the public health against the hazards of unsanitary and unhealthy practices and controls.
Provisions:

- Chapter 100.30
1. Requires persons before engaging in the business of servicing septic tanks, sewage pits, grease traps or privies to acquire a license for each vehicle used in business.
 2. Requires a surety bond covering period for which a license is issued.
 3. Authorizes the Department to suspend or revoke a license.
 4. Subjects any person who violates the statute to a fine of not more than \$100 or imprisonment for not more than 30 days.

- Chapter XVII
5. Details the requirements and application procedures for obtaining a license to service septic tanks, industrial or domestic waste holding tanks, sewage pits, grease traps, or mobile public toilets.
 6. Discusses inspection procedures and certification of all vehicles, and equipment requirements.
 7. Details the requirements for disposal of domestic wastes.
 8. Details the requirements for disposal of liquid industrial wastes.
 9. Subjects any person who fails to secure a license or certificate of approval to prosecution and penalties.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Statutes, Chapter 144.43 and 144.44, Administrative Code Chapter NR151, Solid Waste Management

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: Solid waste

Purpose:

To protect the quality of environment by improving the methods of waste disposal, and to establish procedures for handling, processing, and disposing of solid waste.

Provisions:

Chapter 144.43 and 144.44

1. Provides the Department of Natural Resources with the authority to adopt minimum standards for the location, design and construction, sanitation, operation and maintenance of solid waste disposal site facilities.
2. Provides the Department with the authority to promulgate rules relating to the operation and maintenance of solid waste disposal and sites except such rules relating to open burning which shall be consistent with S. 144.431.
3. Prohibits any person from establishing, conducting, or operating a solid waste disposal site or facility that does not adhere to minimum standards.
4. Requires annual licensing of solid waste disposal sites and facilities.

Chapter NR151

5. Describes satisfactory methods of storing solid waste collected at any premises, business establishment or industry.
6. Provides detailed information with regard to licensing.
7. Details satisfactory practices for the collection and transportation of solid waste.
8. Establishes criteria for classifying solid waste transfer stations, and maintaining and operating transfer stations.

9. Establishes minimum standards with regard to the location, construction, sanitation, operation, and maintenance of solid waste disposal sites and facilities.
10. Prohibits the disposal of any solid waste at any land disposal operation not licensed by the Department of Natural Resources, except those expressly certified in the Chapter.
11. Prohibits solid waste land disposal operations within the following areas:
 - a. 1,000 feet of any navigable lake, pond or flowage;
 - b. 300 feet of a navigable river or stream or the landward side of the flood plain, whichever is greater;
 - c. any area the Department finds that solid waste or leachings therefrom may have a detrimental effect on groundwater quality;
 - d. 1,000 feet of the nearest edge of the right-of-way of any state trunk highway or the boundary of any public park;
 - e. a wetlands area.
12. A land disposal cannot be established nor an existing operation expanded until a set of plans and specifications have been submitted to the Department of Natural Resources and approved.
13. Specifies the procedures which must be undertaken to terminate the use of a sanitary landfill or land disposal operation:
 - a. requires the entire area previously used for disposal purposes to be covered with at least two feet of compacted earth sloped adequately to allow surface water runoff;
 - b. requires the finished surface of the filled area to be covered with adequate topsoil and seeded with native grasses or other suitable vegetation;
 - c. requires inspection and maintenance of the area to be continued by the owner or operator until the fill becomes stabilized,

Administrative Responsibilities:

The Department of Natural Resources is responsible for: (1) adopting minimum standards for the location, design, construction, operation, and maintenance of solid waste disposal sites and facilities; (2) developing a licensing system; and (3) promulgating rules and regulations with regard to the operation and maintenance of solid waste disposal sites and facilities.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Chapter 144.46, Shoreland and Flood Plain Zoning

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: Solid wastes

Purpose:

To protect the shoreline by controlling building sites.

Provisions:

1. Prohibits solid waste disposal sites and facilities within areas under the jurisdiction of shoreland and flood plain zoning regulations, except those authorized by the Department of Natural Resources.
2. Requires permits of those solid waste disposal sites and facilities located in areas regulated by shoreland and flood plain zoning regulations.

Administrative Responsibilities:

The Department of Natural Resources is responsible for issuing permits.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: 15.195(1)

Implementing Agency: Department of Agriculture and Department of Health and Social Services

Affected Land Use Activities: Application of pesticides

Purpose:

To create a pesticide review board.

Provisions:

1. Creates a pesticide review board in the Department of Health and Social Services.
2. Prevents all rules and regulations in Chapter 29 and Chapter 94 from becoming effective until approved by the review board.

Administrative Responsibilities:

The Pesticide Review Board is responsible for collecting, analyzing and interpreting information, as well as making recommendations to and coordinating the regulatory and informational responsibilities of State agencies on matters relating to the use of pesticides.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Wisconsin Administrative Code, Chapters NR 102,
NR 103 and NR 104 - Wisconsin Water Quality Standards

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: All activities

Purpose:

To preserve and enhance the quality of waters; standards are established to govern water management decisions.

Provisions:

1. Sets the water quality standards for all bodies of water.
2. Indicates methods to implement, achieve and maintain prescribed water quality standards.
3. Permits variances from surface water quality criteria where existing conditions (natural background, combined sewers, sludge banks, stream flow, etc.) are such that the criteria may not be met by applying technology beyond best practical treatment.

Administrative Responsibilities:

The Department of Natural Resources is responsible for setting and enforcing the water quality standards. A permit program is being adopted to implement effluent requirements and the water quality standards.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Coastal Coordinating and Advisory Council

Implementing Agency: Governor, 1974

Affected Land Use Activities: Erosion

Purpose:

To examine coastal issues and problems.

Provisions:

1. Creates the Coastal Coordinating and Advisory Council.
2. Includes State legislators and representatives of State agencies, local governments, regional planning commissions, tribal governments, the University of Wisconsin and citizens.

Administrative Responsibilities:

The Council is responsible for recommending a future course of action for coastal management in Wisconsin.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Proposed Coastal Management Council

Implementing Agency: Coastal Coordinating and Advisory Council

Affected Land Use Activities: Erosion

Purpose:

To create a council that would work with existing agencies to stimulate improved management.

Provisions:

1. Creates the Coastal Management Council to direct the proposed Coastal Management Program.
2. Contains representatives from the State government, local governments and publicly-oriented members.
3. Does not authorize the Council to issue permits or own land.

Administrative Responsibilities:

The Council would be responsible for policy development and recommendation of State coastal goals, continued coastal advocacy and public education, identification of key coastal zone areas and uses, oversight of State agency implementation and financial and technical assistance and approval of a program budget.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Proposed Legislation -- Coastal Management Program

Implementing Agency: Coastal Coordinating and Advisory Council

Affected Land Use Activities: Erosion

Purpose:

To preserve, protect, develop and restore the resources of the coastal area.

Provisions:

1. Outlines a process for identifying and designating key areas and uses in the coastal areas of the state.
2. Provides for financial assistance to state agencies and localities for management activities. These funds will compliment the existing federal, State and local programs.
3. Proposals for financial assistance would originate with appropriate eligible recipients. Project proposals and funding requests would then be submitted to the Coastal Management Council. The Council would make a final decision on a project funding and notify the applicants of the decision. The council would then make necessary funding from the federal office of Coastal Zone Management.

Administrative Responsibilities:

The Council would be responsible for policy development and recommendation of State coastal goals, continued coastal advocacy and public education, identification of key coastal zone areas and uses, oversight of State agency implementation and financial and technical assistance and approval of a program budget.

POLITICAL JURISDICTION: Wisconsin

Title or Reference: Internal Rules for Sludge Management

Implementing Agency: Department of Natural Resources

Affected Land Use Activities: Sludge

Purpose:

To provide for a more efficient and effective method of sludge disposal.

Provisions:

1. Requires the development of a sludge management plan by each owner of a wastewater treatment plant.
2. Allows the sludge management plan to be amended.
3. Details sludge management plan requirements which should include information on storage, a description of sludge characteristics and information regarding the ultimate disposal site.

Administrative Responsibilities:

The Department of Natural Resources is responsible for evaluating and approving the sludge management plan.

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