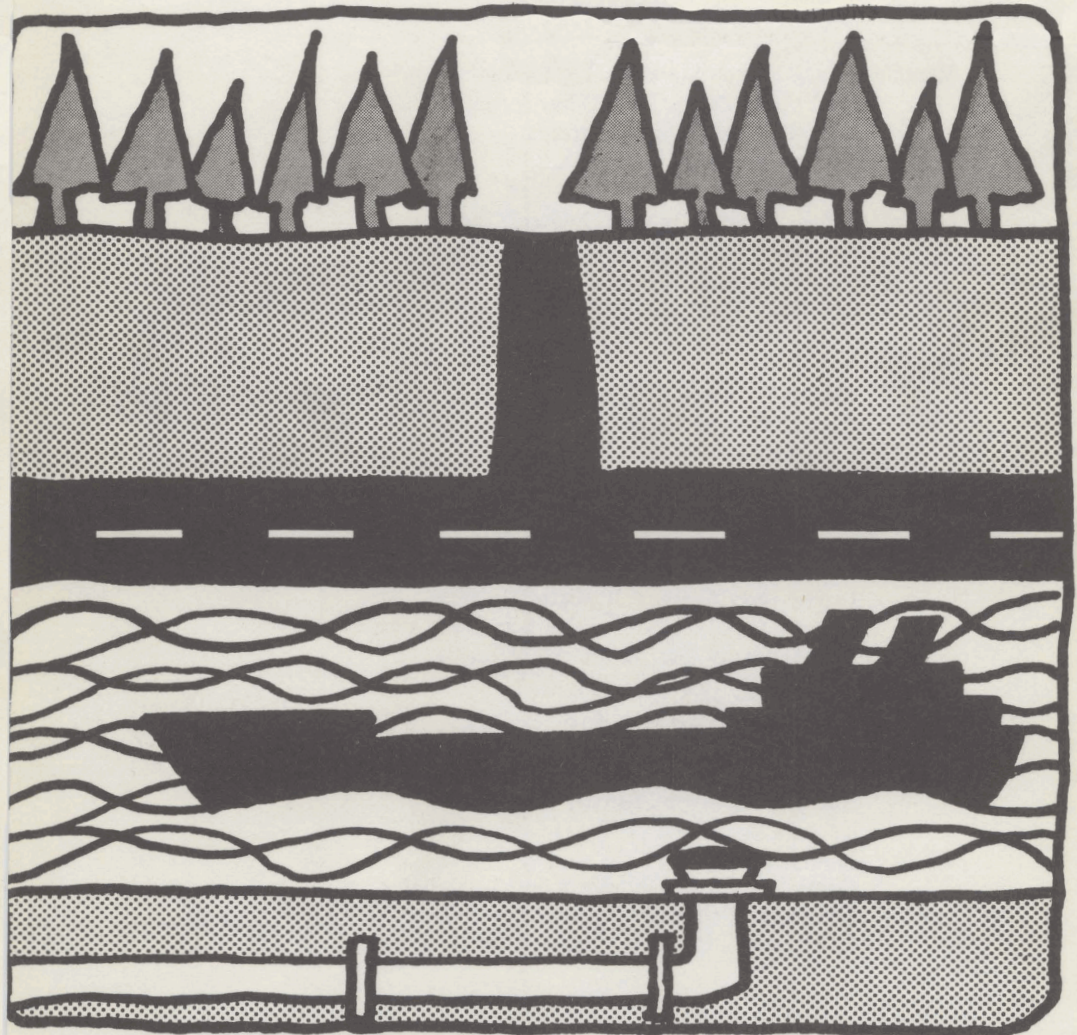


# THE QUEST FOR ENVIRONMENTAL QUALITY

Federal and State Action.  
1969-70



## Annotated Bibliography

ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS  
WASHINGTON, D.C. 20575

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April 1971

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# **THE QUEST FOR ENVIRONMENTAL QUALITY**

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COMMISSION ON INTERGOVERNMENTAL RELATIONS  
WASHINGTON, D.C. 20575  
M-62 April 1971**



## **Preface**

Preservation of the environment is an issue of increasing concern to all levels of government. Its solution will require significant cooperation among the levels. Each has an important role to play, but the individual parts are still being defined.

The Advisory Commission on Intergovernmental Relations issues this report on Federal and State actions on the environment along with an annotated bibliography as part of its function to provide information on emerging issues with intergovernmental implications. The Commission is a 26-member bipartisan permanent national body, established by Federal law in 1959 to maintain a continuing review of the operation of the federal system. It is composed of representative officials of the legislative and executive branches of Federal, State and local government and the general public.

The Commission instructed its staff to develop the bibliography to provide background for Commission consideration of the need for additional studies of intergovernmental problems in the environment. The report of State action was prepared from responses to a questionnaire.

This volume contains no recommendations or suggestions. It is offered solely as an informational document.

**ROBERT E. MERRIAM**  
Chairman

## **Acknowledgements**

This report on Federal and State action on the environment and annotated bibliography was prepared by the staff in response to a Commission request for an environmental bibliography.

The report on Federal and State action was written by Rochelle L. Stanfield and John J. Callahan. The bibliography was developed by Sandra Osbourn.

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# Introduction

America has always had conservationists. But now widespread concern for the totality of man's environment has generated a loud public outcry against pollution and misuse.

The Nation and the States have had laws to protect the environment since before the turn of the century, with new measures to regulate water and air pollution on the books since the end of World War II. But in the past years, Federal and State governments have demonstrated a new commitment to preserve our surroundings.

It takes two forms: organization for a comprehensive approach to the environment as a whole; and efforts to strengthen control and management of the individual segments. The measures provide for centralization of administrative authority, greater fiscal aid to local projects, and increased regulatory control.

The centralizing tendencies of these environmental measures coincide with the need for balance in our federal system, sought by the Advisory Commission on Intergovernmental Relations. Only the Federal Government with its nationwide jurisdictional reach can provide certain national minimums for environmental quality. But the States, with their relatively broad reach and wide

revenue base, are the appropriate level to coordinate and help finance local ecological activities.

At the Federal level, 1969-70 witnessed the establishment of a national environmental policy, the creation of a comprehensive environmental policy-making agency, and the consolidation of many operating agencies. Those two years also saw strides in water quality standards, air pollution control regulation and innovations in solid waste disposal.

These activities were echoed at the State level, with significant efforts at reorganization and consolidation, as well as innovations in financing pollution control and strengthening regulation of water quality. In addition, States began to take the long-range view of the environment, with moves toward land use planning and efforts at environmental education.

This volume reports on the legislative and administrative actions of Federal and State governments during 1969-70 and provides an annotated bibliography on environmental quality. The ACIR Staff developed the bibliography at the instruction of the Commission to provide background for consideration of the need for additional studies in the field.

# **The Federal Quest**

Federal concern for environmental quality began to awaken at the close of World War II. By the mid-fifties, the Government focused in on specific functional problems, such as air and water pollution. But in the last few years, the intensity of Federal interest had increased dramatically and the scope had broadened to the totality of man's environment. In 1969-70, a national policy for environmental quality was adopted and government reorganization for a comprehensive approach begun. Concern for individual aspects of the environment continued unabated, and Congress enacted measures to strengthen antipollution regulation.

## **Policy and Organization**

The National Environmental Policy Act of 1969 (PL 91-190) pledged the Federal Government to "identify and develop methods and procedures . . . which will insure that presently unqualified environmental amenities and values may be given appropriate consideration in decision-making along with economy and technical considerations."

As one vehicle toward this end, the Act required all Federal agencies and all State and local governments applying for Federal aid to file a statement on the impact of proposed projects on the environment.

The Act also established a Council on Environmental Quality (CEQ) to advise the President on environmental matters and help him prepare national environmental policies. The **Environmental Quality Improvement Act of 1970** (Title II, PL 91-224), strengthened the CEQ by establishing an Office of Environmental Quality to supplement council staff, assist Federal agencies to coordinate environmental quality programs and develop interrelated Federal environmental quality criteria.

To further this comprehensive approach, the President using his reorganization authority centralized pollution control in the Environmental Protection Agency (EPA). Reorganization Plan No. 3 of 1970 centralized under EPA: the Federal Water Quality Administration, the National Air Pollution Control Administration, the Environmental Control Administration from the Department of Health, Education and Welfare and specific environmental agencies from the Departments of Agriculture and Interior. The EPA reorganization is designed to foster an overall strategy for attacking pollution problems, provide a more prominent budgetary focus for environmental programs and permit better deployment of environmental manpower and other resources.

## **Water Quality**

The Santa Barbara oil spill in early 1969, followed by major oil spills on other coasts, focused national attention on this problem. In the **Water Quality Improvement Act of 1970** (PL 91-224), Congress clarified liability for oil pollution in coastal areas and set stiff penalties for willful or negligent oil pollution. It also directed the President to prepare a National Contingency Plan to enable swift and effective mobilization of Federal, State and local resources in case of major oil spills.

Other sections of the Act called for national standards for marine sanitation devices and authorized the Federal Government to conduct pilot programs for training waste treatment operations and for forecasting future State manpower needs for such personnel. The Act also required all Federal facilities to comply with standards set in the Omnibus Water Pollution Control Act. And it provided demonstration grants for water pollution control projects in mine areas and in the Great Lakes Region.

## **Solid Waste Disposal**

The **Resource Recovery Act of 1970** (PL 91-512), an omnibus amendment to the Solid Waste Disposal Act of 1965, provided for grants to States, interstate agencies and localities for solid waste disposal facilities and resource recovery systems. It also provided for training personnel in the waste disposal field. The law required all Federal agencies to follow prescribed regulations for solid waste recovery, collection and disposal – and mandated that such regulations be consistent with Federal and State air and water quality standards. Other significant features of the Act included an authorization for a two-year study of potential disposal sites for the storage and disposal of hazardous wastes as well as a three-year authorization for study of a National Materials Policy designed to estimate national materials requirements and future means of recycling materials in order to enhance environmental quality.

## **Air Quality**

The **Clean Air Amendments of 1970** (PL 91-604), an omnibus amendment to the 1967 Clean Air Act, authorized establishment of national primary and secondary ambient air quality standards to be implemented by a system of nationwide air quality control regions. The legislation also provided for Federal enforcement in the absence of State-local enforcement.

The legislation also directed EPA to promulgate motor vehicle emission standards. By 1975-76 carbon monoxide and nitrogen oxide emissions from all automobiles are to be reduced to a level 90 percent below 1970 emissions. To bolster State-local regulation of such air pollution control, the Act authorized EPA to make grants to State agencies of up to two-thirds of the cost of developing and maintaining systems for testing motor vehicle emission devices. This legislation also provided for the issuance of aircraft emission standards and study of possible noise pollution standards. It permitted class action suits against any public or private air pollution offenders.

## **The State Quest**

State interest in a better environment echoes the Federal concern. At least 40 of the 50 States in 1969-70 enacted environmental quality measures. State actions included:

- basic policy pronouncements such as environmental bills of rights added to State constitutions;
- State government reorganization to bring together in one comprehensive department the various agencies dealing with individual aspects of pollution control;
- broadened State fiscal support of environmental efforts through increased bond issues, State buying-in programs and innovations such as finance corporations;
- stricter regulations to control air and water pollution including innovations such as “pay as you pollute” legislation;
- State coordination and research to improve methods of solid waste disposal; and
- new long-range efforts to improve the environment through land use planning.

## **Policy**

To set the mood and provide an appropriate atmosphere for improving environmental quality, several States have added environmental bills of rights to their constitutions. In November 1970, the voters of **Rhode Island** and **Virginia** approved such amendments, declaring that the people have the right to clean air and water, an aesthetic environment and preserved natural resources. In **Massachusetts** (H. 3875) and **Pennsylvania** (Resolution 4-1970), the legislatures gave preliminary approval to similar amendments. If adopted at the next legislative session, they will be submitted to the people. An environmental bill of rights died in the **California** legislature.

## **Government Organization**

The approach to a better environment has broadened at the State level, as it has at the Federal level. Over the years, as the States identified individual pollution problems, they established narrow-focused agencies, boards and commissions to deal with them. In the past biennium the need for a comprehensive approach to the environment was recognized. It has coincided with a general trend to modernize State government management and increase executive accountability. The result has been a wide-ranging move to consolidate environmental functions into a single broad-based State agency, frequently a department for the environment in new cabinet-style State executive systems.

**New York** set up one of the most comprehensive programs in its 1970 Environmental Conservation Law (Chapter 140). It consolidated all environmental and resource programs into a Department of Environmental Conservation, which has the responsibility for administering all of the programs and for developing an overall environmental plan, assessing new threats to the environment, conducting research and carrying on public education. The law also established a Council of Environmental Advisors to the governor, and a State Environmental Board to set pollution abatement and environmental standards.

**Illinois'** Environmental Protection Act (PA 76-2429), which went into effect July 1, 1970, consolidated all pollution control statutes and created three units to deal with them: an Environmental Protection Agency to administer the act; a Pollution Control Board as a rule-making body; and an Institute for

Environmental Quality to conduct research.

In another major consolidation, **Washington** created the State Department of Ecology (Engrossed Senate Bill 1) which combined into one department the Water Pollution Control Commission, Department of Water Resources, State Air Pollution Control Board, and the Department of Health's responsibilities to control pollution created by solid waste disposal. The act also set up a seven-member ecological commission to advise the governor. **Vermont** created an Environmental Conservation Agency (Act 246) whose Environmental Protection Division has coordinated enforcement powers for pollution control.

Two States that established cabinet-level departments were **Delaware** and **Massachusetts**. In Delaware, a new Department of Natural Resources and Environmental Control placed under one umbrella all the State's agencies involved in these areas. The Massachusetts Executive Office of Environmental Affairs (Chapter 704) is also to include a wide range of environmental agencies.

The **California** legislature took a different approach in two companion laws. Chapter 1534 established the State Planning and Research Office which reports directly to the governor. Among other duties, it is directed to develop an integrated environmental monitoring system and a statewide land use policy, and to make continuing review of proposed State plans to discover their impact on the environment. The Environmental Quality Act of 1970 (Chapter 1433) required all State and local agencies to consider the impact of their activities on the environment and report on any Federal, State or local programs that would affect the environment. In other major State actions:

- **Alaska** (Chapter 235) established a five-member Environmental Quality Control Commission to determine the ecological acceptability of private and public resource development projects and to do long-range environmental research.

- **Colorado** (Chapter 87) created a coordinator of environmental problems in the office of the governor.

- **Hawaii** (S.B. 1132) set up a multi-faceted Office of Environmental Control to set pollution control standards and conduct environmental research at the University of Hawaii.

- **Kansas** (Chapter 345) established an Advisory Council on Ecology.

- **New Jersey** (Chapter 33) reorganized the Department of Conservation and Economic development into the Department of



Environmental Protection with expanded pollution control powers.

- **Wyoming** (Chapters 94, 96-1969) created a Department of Economic Planning and Development and the Office of State Planning Coordinator, both aimed at coordinating ecology programs.

Action to coordinate and consolidate environmental agencies can be expected to continue. A comprehensive Environmental Management Act was to be introduced in **Indiana**. Studies to create environmental control departments were underway in **Colorado, Iowa, Virginia and New Mexico**.

### **Financing Environmental Improvement**

The States and the public demonstrated their commitment to the environment by increasing financial support for its improvement through new fiscal devices and traditional methods such as bond issues, tax exemptions on equipment and State buying-in programs.

**Maryland and New York** created full-scale environmental finance corporations to aid localities with a wide range of projects.

Chapter 240 in Maryland created an Environmental Service Administration, authorized to work with local governments in preparing integrated solid waste, water supply and sewage disposal plans. The Service may contract with localities to build sewage treatment or solid waste disposal facilities and – at the direction of the State Secretary of Health or Natural Resources – may build mandatory facilities in localities suffering from a “health crisis” because of insufficient sewage or solid waste disposal services.

New York, in Chapter 744, reconstituted the Pure Waters Authority as the Environmental Facilities Corporation with expanded loan authority to support environmental research and increased contract powers for water management facilities, storm sewers and air pollution control projects.

At the November 1970 elections, the people reinforced governmental interest in the environment by voting overwhelmingly to approve bond issues to fight pollution. In **Maine**, the voters adopted \$4 million for oil spill control. In **Illinois** – reversing a negative vote on a \$1 billion issue in 1968 – the electorate approved a \$750 million water pollution control bond

issue. In fact, most of the issues were to finance water pollution control and to construct sewage treatment facilities, including \$11 million in **Alaska**, \$250 million in **California**, \$1 million in **New Mexico**, \$173 million in **Oregon** and \$144 million in **Wisconsin**. The **Washington** electorate, in effect, readopted a \$25 million pollution control bond issue by removing a 6 percent interest ceiling on a previously-approved measure that had made it unmarketable.

In other bond-related action, the **Florida** legislature (Chapter 70-270) pending a referendum, pledged \$100 million annual bond funding for pollution control purposes. In Chapter 246, **Maryland** raised by \$15 million the amount of State money available for sewage treatment grants and also authorized a \$5 million bond for reclamation of abandoned mines (Chapter 247).

To encourage industries to control pollution, many States have granted tax exemptions on control equipment. At the 1969 session, the **Alabama** legislature in Acts 1136-1141 exempted such equipment from corporate income, excise, franchise, sales, use and property taxes. **Hawaii** and **Rhode Island** exempted such equipment from sales, income and property taxes. **Minnesota**, in Chapter 1064 of 1969, exempted pollution control equipment from property tax and in Chapter 1000 allowed a 5 percent income tax credit (not to exceed \$50,000) for the purchase of pollution control machinery. This equipment was exempted from the property tax alone in **Tennessee** (Chapter 576) and **Idaho** (Chapter 224).

The Federal waste treatment construction grant program provides a bonus for projects in which the States buy in – put up at least 25 percent of the non-federal share of the costs. A third of the States now buy into this program. During the last session, **Ohio** appropriated \$100 million for a 30 percent buy-in to sewage treatment plant and interceptor sewer programs. **Florida** (Chapter 70-251) and **Kansas** (Chapter 263) created water pollution control funds to finance 25 percent of Federally aided sewage treatment projects. The Florida act provides that to receive this aid, a local project must make a ten-year forecast of water resource needs. A **Louisiana** measure (Chapter 171) authorized \$15 million for buying in and **New Jersey** (Chapter 26) appropriated \$30 million for this purpose.

In **Minnesota**, Chapter 825 of 1969 appropriated \$1.5 million under the Crystal Waters Act to prefinance water pollution control projects eligible for Federal aid.

**New Jersey** (Chapter 26) appropriated \$11 million for sewage

treatment facility loans and \$29 million (Chapter 147) for the advance design and acquisition of water supply facilities with a 12-year State reimbursement to localities that suffer tax losses as a result of these acquisitions.

States also provided aid to localities for solid waste disposal. **Maryland** (Chapter 249) created the Sanitary Facilities Fund to help localities finance the planning of solid waste disposal systems and solid waste acceptance facilities. In Chapter 683, **New York** agreed to share half the cost of solid waste disposal planning and in **Ohio**, ASB 447 authorized the Water Development Corporation to aid local solid waste disposal projects.

In other actions, **Maryland**, in Chapter 253, removed spending limitations on the Washington Suburban Sanitation Commission and, in Chapter 248, permitted sanitary districts to set flexible interest rates on their bonds. And **Ohio's** Amended House Bill 963 authorized the Air Quality Development Authority to issue air quality revenue bonds for the construction and acquisition or air quality control facilities.

## **Water Pollution Control**

“Pay as you pollute” legislation was the major innovation in water pollution control in 1970. Another new trend was stiffer oil pollution control provisions in coastal States. Other State activity concentrated on coordinating control of water pollution and strengthening water pollution control statutes.

**Michigan** and **Vermont** adopted “pay as you pollute” measures. The Michigan version, Public Act 200, required all polluters to pay a fee of \$50 plus a graduated amount based on the amount of pollution generated. To determine the polluters, all firms were required to file annual reports on pollutants discharged into the State’s waters.

The Vermont approach was more complex. Act 252 required anyone wanting to discharge pollutants into the State’s waters to apply to the Environmental Conservation Agency for a “pollution” permit. If the agency finds the proposed discharge to be within tolerable limits it will issue a discharge permit. Those rejected may apply for a temporary discharge permit which will allow the holder to pollute the water for a limited time, if he pays a fee. The legislation states the purpose of the fee is to provide financial incentive to polluters to reduce the volume and degrading quality of their discharge.

In reaction to the increasing number of damaging oil slicks on our coastal areas, several States enacted stringent oil pollution control laws. One of the toughest was HB 51 in **Washington State**, which makes any person owning or having control of oil entering the State strictly liable for spills without regard to fault. In addition to a \$20,000 fine for each violation, he is liable to pay damages equal to the sum necessary to restore the water. **Maine** enacted similar legislation (Chapter 572) granting the Environmental Improvement Commission (EIC) full power to prevent oil pollution and authorizing it to license and regulate oil terminal facilities.

In similar actions **Alaska** (Chapter 244) set a minimum penalty of \$5,000 for oil ballast discharges from sea-going vessels; **Florida** (Chapter 70-244) authorized its Department of Natural Resources to prevent and control oil spills, license terminal facilities, and finance a coastal protection fund. **Massachusetts** (Chapter 827) toughened its oil spill laws through minimum penalties of \$10,000 per violation and the requirement of a \$25,000 bond for vessels unloading oil at the State's ports.

In other actions **Maryland** (Chapter 254) empowered the Department of Health to determine the location of any sewage treatment facility discharge point in a county plan. **New Jersey** (Chapter 91) required all localities to submit to the Department of Environmental Protection sewage treatment plans that emphasize "community development of comprehensive regional sewerage facilities." **Rhode Island** passed legislation (Chapters 46-47) to permit the New England Interstate Water Pollution Control Commission to operate water pollution control programs in areas near the State's borders. That State also reaffirmed its commitment to expanding the operations of the Interstate Commission. In **Minnesota**, Chapter 449 of 1969 authorized a seven-member sewer service board under the Metropolitan Council in the Twin Cities area in an areawide approach to sewage control.

## **Air Pollution Control**

Several States made considerable progress in revising and expanding their powers in the air pollution control field in 1969-70. New or expanded air pollution control bodies were established in **Alabama**, (Act 1135 of 1969), **Arizona** (Chapter 164), **Colorado** (Chapter 64), **North Dakota** (Chapter 23-25) and **South Dakota** (Chapter 203). Air pollution bodies in **Pennsylvania**

(S.B. 1206) and **Arizona** (Chapter 164) were authorized to set standards and evaluate programs for motor vehicle emission control while **Colorado's** commission (Chapter 64) was charged with the responsibility for developing ambient air quality standards throughout the State.

Several other States passed legislation requiring greater local activity in the air pollution field. **Massachusetts** (Chapter 838) directed all State and local agencies to cooperate with its Health Department in controlling air pollution. **North Carolina** (Chapter 538-1969) clarified the authority of its local governments to structure air pollution control programs while **Alabama** (Act 1117) authorized the use of local corporations for this purpose. **California** (Chapter 714) required all localities to be in a regional air pollution control district by 1971 and also authorized (Chapter 1347) the State Air Resources Board to set air pollution control standards if local ones are judged inadequate. Stiffer fines for air pollution violations were enacted in **California** (Chapter 694), and **Tennessee** (Chapter 540).

## **Solid Waste Disposal**

Several States took significant steps to do something about the mountains of solid waste that have become a greater problem in recent years. Legislation generally provided for State coordination and help for local and regional action.

In **Kansas**, Chapter 264 directed each county and city to prepare a plan for a solid waste management system by June 1974. It provided, 50 percent State aid for the planning.

In **New Jersey**, Chapter 39 authorized the State Environmental Protection Department to register all solid waste disposal operations, formulate a statewide solid waste management plan and encourage regional approaches. The department was authorized to construct solid waste disposal operations on an experimental basis and do long-range research on waste management. **Ohio** (Amended Senate Bill 447) authorized the State Water Development authority to construct, finance, operate and maintain solid waste disposal facilities.

A 1969 **Minnesota** measure, Chapter 1046, added land pollution to the purview of the Pollution Control Agency and authorized the agency to set standards for control, transportation and disposal of solid waste. **North Carolina** (Chapter 899) directed the State Board of Health to conduct solid waste programs,

including standard-setting, inspection and research.

**Oklahoma** and **Minnesota** legislation provided for areawide control over waste disposal operations. **Oklahoma** (Chapter 69) authorized interlocal agreements for solid waste management purposes while **Minnesota** (Chapter 847-1969) authorized the Twin Cities Metropolitan Council to prepare solid waste disposal plans for the Minneapolis-St. Paul metropolitan area.

## **Land Use**

The land itself has been one of America's greatest resources. Also, one of its most misused. For years, the States have made attempts to regulate other forms of ecological abuse – air and water pollution – by setting standards. Now they are moving to meet the long-range problem to control the use of the land to meet the needs both of preservation and development. One aspect of this is action to save the estuarine areas on the coasts.

Perhaps the most innovative general State land-use legislation in 1970 was **Maine's** Site Location Law (Chapter 571) which authorized the State's Environmental Improvement Commission (EIC) to regulate any industrial or commercial development involving more than 20 acres or single structures of 60,000 square feet or more. The EIC may disapprove development that lacks the financial capacity to meet State air and water pollution control standards, that has an inadequate transportation plan or an adverse effect on the environment. EIC is required to hold public hearings on these matters. At these hearings "the burden shall be on the person proposing the development to affirmatively demonstrate that each of the criteria for approval has been met and the public health, safety, and general welfare will be protected."

**Vermont** enacted somewhat similar legislation requiring the State to review proposals for commercial, industrial or residential development over ten acres. It also mandated State zoning of all development in areas with an elevation of 2,500 feet.

In Chapter 75 **Colorado** created a State land-use commission and authorized it to develop a land-use map and corresponding land-use plan, to conduct research on land-use interrelationships in the State and to develop an information system on Colorado's ecological systems. **Oregon** voters upheld 1969 legislation that empowered the State to enact land use controls in jurisdictions not taking such steps by December 1971.

To better regulate shoreline development, **California** passed

three laws (Chapters 761, 974, 1308) which guaranteed the public “reasonable access” to shore areas of oceans, lakes and reservoirs and required developers to dedicate “access” land in any shoreline developments. In other actions to provide for more orderly urban development, **Maine** and **Washington** (Chapter 87) enacted preferential assessment laws designed to discourage too-rapid conversion of suburban and rural land. Washington’s law provided that land qualifying for preferential assessment remain in its “actual use” for ten years. Maine’s law demands back taxes of five years if the land is converted while Washington’s legislation requires that all back taxes for ten years be paid. Finally, **Maryland** (Chapter 255) enacted legislation granting property tax exemptions for land that is being used for nature conservancy purposes and is ultimately intended for public ownership.

Wetlands and marshlands in the coastal areas, once filled-in without a thought, now are being preserved for the ecological role they play and the myriad wildlife they support. **Georgia** adopted the Coastal Marshlands Protection Act (Act 1332) to prohibit any alteration of coastal marshlands without a permit from a new seven-member Coastal Marshland Protection Agency.

In **Maryland**, Chapter 241 made it unlawful for anyone without a license to dredge or fill-in State wetlands. It directed the Secretary of Natural Resources to set rules and regulations governing dredging, filling, and altering or polluting private wetlands.

**Delaware** created a task force to prepare a master plan for the bay and coastal areas.

## **Other Environmental Measures**

**Michigan** (H.B. 3055) permitted class action suits against public and private corporations when they pollute the environment. It assured the individual or interested association of judicial standing in environmental court actions.

**Louisiana** (Act 398) and **Oklahoma** (Chapter 68) created scenic river systems and designated State agencies to acquire scenic easements along designated rivers.

**Washington** (S.B. 139) strengthened regulation of surface mining operations requiring mine operators to totally reclaim abandoned mines within two years after termination of operation. **North Dakota** (Chapter 38-14-1969) passed similar legislation

requiring mine operators to prepare comprehensive plans for mine reclamation.

The field of environmental education and training gained support. **Maryland** (H. Res. 17) and **California** (Chapter 1616) urged their State Departments of Education to develop curricula for environmental education. **California** (Chapter 1558) authorized State grants to local school districts for developing such programs and also earmarked State revenues for an Environmental Defense Education Fund. **Rhode Island** (Chapter 26) permitted the New England Interstate Water Pollution Control Commission to develop standards for the training, education and experience requirements of sewage treatment plant operators.

To better control the environmental effects of pesticides, **Iowa** (Chapter 1096) created a chemical technology review board to advise the Secretary of Agriculture on proper use and application of pesticides. **Kansas** (Chapter 2) created a pesticide advisory council and authorized the Secretary of Agriculture to require a surety bond and liability insurance of all pesticide operators within the State. **Massachusetts** (Chapter 874) required all sellers of pesticides to obtain a license from the Department of Health.

In other miscellaneous actions, **West Virginia** (Chapter 56) passed legislation to allow law enforcement agencies to remove abandoned motor vehicles from public and private property. **Arizona** (Chapter 214) enacted a comprehensive set of outdoor advertising regulations with which all advertisers must conform by July 1975, and **California** enacted legislation (Chapter 865) to have noise impact considerations affect highway construction and to have (Chapter 1230) the Bay Area Air Pollution Control District set odor emission standards for commercial operations in the San Francisco metropolitan area.



**Citations to 1969-70 State Environmental Legislation**

State	Governmental Reorganization	Fiscal Aid	Air Pollution	Water Pollution	Solid Waste	Land Use	Other Legislation
Alabama (1969)*		Acts 1136-1141	Act 1135, Act 1117	Act 769, Act 886	Act 771		
Alaska	Ch. 235			Ch. 244			
Arizona			Ch. 164				Ch. 214
California	Ch. 1534, Ch. 1433		Ch. 694, Ch. 714, Ch. 1043, Ch. 1347, Ch. 1579		Ch. 65	Ch. 1555, Ch. 761, Ch. 974, Ch. 1308	Ch. 865, Ch. 1230, Ch. 1293, Ch. 1298, Ch. 1558, Ch. 1616
Colorado	Ch. 87		Ch. 64	Ch. 63		Ch. 75	
Florida	Ch. 70-316	Ch. 70-251, Ch. 70-270		Ch. 70-251, Ch. 70-244, Ch. 70-82			
Georgia						Act 1332	
Hawaii	S.B. 1132						
Idaho		Ch. 224					
Illinois	P.A. 76-2429						
Iowa					Ch. 1191		Ch. 1096
Kansas	Ch. 345	Ch. 263	Ch. 261	Ch. 263	Ch. 264		Ch. 2207
Kentucky			H.B. 3	H.B. 370, H.B. 500	H.B. 384		
Louisiana		Ch. 171	Ch. 287	Ch. 404, Ch. 499, Ch. 628, Ch. 654			Ch. 174, Ch. 186, Ch. 352, Ch. 398, Ch. 516, Ch. 542, Ch. 589
Maine				Ch. 572		Ch. 571	
Maryland		Ch. 240, Ch. 246, Ch. 248, Ch. 249, Ch. 253, Ch. 255	Ch. 244	Ch. 240, Ch. 243, Ch. 254, Ch. 464	Ch. 250, Ch. 251	Ch. 241, Ch. 242, Ch. 245	Ch. 247, H. Res. 17
Massachusetts	Ch. 704		Ch. 838	Ch. 827	Ch. 839		Ch. 134, Ch. 150, Ch. 874, H. 3875
Michigan				Act 200			H.B. 3055
Minnesota (1969)*		Ch. 825, Ch. 1000, Ch. 1064	Ch. 410	Ch. 831, Ch. 898, Ch. 931, Ch. 449	Ch. 817	Ch. 1046	Ch. 236

## Citations to 1969-70 State Environmental Legislation (continued)

State	Governmental Reorganization	Fiscal Aid	Air Pollution	Water Pollution	Solid Waste	Land Use	Other Legislation
Missouri (1969)*				S.B. 18,245			
Mississippi		Ch. 835					
Montana (1969)*				Ch. 165			
North Dakota (1969)*			Ch. 23-25				Ch. 38-14
New Jersey	Ch. 33	Ch. 26, Ch. 147		Ch. 90, Ch. 91	Ch. 39, Ch. 40, Ch. 119		
New Mexico	H.M. #2						
New York	Ch. 140	Ch. 683, Ch. 744			Ch. 683		
North Carolina (1969)*		Ch. 538	Ch. 538		Ch. 714, Ch. 889		
Ohio		ASB 447, AHB 963 AHB 1222 AHB 465 ASSB 169	AHSB 6	AHB 503 AHB 1002 AHB 2 AHB 174	ASB 447		
Oregon					Ch. 509		Ch. 511
Oklahoma					Ch. 69		Ch. 51, Ch. 68, Ch. 111, Ch. 217
Pennsylvania	H.B. 2213	Act 23, Act 57, Act 79A	Act 201 SB 1206	Act 43, Act 146, Act 222			Res. 4-1970
Rhode Island		Ch. 60		Ch. 46-47, Ch. 27			Ch. 26
South Dakota			Ch. 203				
Tennessee		Ch. 576	Ch. 540		Ch. 417		
Texas (1969)*					Ch. 405		
Vermont	Act 246			Act 252			
Virginia				Ch. 638			
Washington	ESB 1	Ch. 87		ESHB 51, SB 49		Ch. 87	SB 139
Wisconsin (1969)*				Ch. 208			
West Virginia							Ch. 56
Wyoming (1969)*	Ch. 94, Ch. 96						

\*Legislation enacted in 1969 session. Legislation for other States was enacted in 1970.

# Annotated Bibliography

## The Environment: Politics, Policies and Programs

American Chemical Society. Committee on Chemistry and Public Affairs. Subcommittee on Environmental Improvement.

*Cleaning Our Environment: The Chemical Basis for Action.* Washington: 1969.

Aimed at buttressing the technical awareness of legislators, administrators, and others who must deal with environmental problems at one or more steps removed from direct involvement with the pertinent science and technology, this report has two goals: first, to set down an objective account of the current status of the science and technology of environmental improvement; second, to analyze this information and recommend a number of measures that, if adopted, should help to accelerate the sound development and use of that science and technology.

Berlin, Harriet C.

“Federal Aid for Air and Solid Wastes Programs,” *Environment Reporter*, Vol. 1, No. 23, October 2, 1970: 1-32.

Describes programs available under the Federal Air Quality Act and the Solid Waste Disposal Act.

Caldwell, Lynton Keith

*Environment: A Challenge for Modern Society.* Garden City: The Natural History Press, 1970.

Written for the general reader, rather than the environmental specialist, the purpose of this book is to help the reader understand why new patterns of individual behavior and social action in relation to the environment has become imperative to human welfare. The message of the book is that if modern man and his civilization are to survive, administration of man's environmental relationships must become a major task of government. "Environmental administration" is given two interpretations: (1) the purposive shaping of the human environment by man himself and (2) the control of human action in relation to the environment.

Caldwell, Lynton K., ed.

"Environmental Policy: New Directions in Federal Action; A Symposium," *Public Administration Review*, Vol. 27, No. 4, July/August 1968: 301-347.

The articles in this symposium concentrate upon the more recent and coordinative aspects of environmental policy and administration, and upon those programs that are concerned with management of large and complex segments of the environment in preference to those that act only upon specific aspects of it. They describe the interaction of policy and administration in the management of selected areas of the human environment.

Caldwell, Lynton K., ed.

*Environmental Studies: Papers on the Politics and Public Administration of Man-Environment Relationships.* Bloomington: Institute of Public Administration, Indiana University, 1967. 4 vol.

Attempts to identify and in some measure to define the principal political problems and pressure points encountered in any public effort to control the course of environmental change. The four volumes deal with: "Political Dynamics of Environmental Control"; "Intergovernmental Action on Environmental Policy: The Role of the States"; "Research on Policy and Administration in Environmental Quality Programs"; and "Politics, Professionalism and the Environment."

California. Environmental Quality Study Council.

*Progress Report*. Sacramento: 1970.

The Council was directed to study, in depth, State policies affecting environmental quality, to determine whether existing approaches are adequate, and to identify "unmet or inadequately met needs, undesirable overlaps, or conflicts in jurisdiction between or among Federal, State, regional and local agencies." In addition to being charged with developing long-range environmental quality goals and recommendations, it shall also make recommendations for immediate action.

California. Governor's Conference on California's Changing Environment.

*The Environmental Crisis: A Call to Action; Summary Proceedings*. San Francisco: 1970.

Summarizes the discussion and recommendations on the four main topics: people and air, people and water, people and land, people and urban society.

California. Legislature. Assembly. Select Committee on Environmental Quality.

*Environmental Bill of Rights*. Sacramento: 1970.

The report lists the major reasons for environmental degradation, identifies the key policy issues and lays out an orderly process for assessing man's future activities in order to assure environmental protection and prevent environmental crises.

Citizens Advisory Committee on Environmental Quality.

*Community Action for Environmental Quality*. Washington: Government Printing Office, 1970.

A guide for citizens who want to participate in practical action to make their communities better places to live in. Concentrates on the principal approaches, how each works, how they can work together, and what organizations and agencies one can go to for further help.

Connecticut. Governor's Committee on Environmental Policy.

*An Environmental Policy for Connecticut*. New Haven: 1970.

Analyzes the effect of societal functions on the environment, develops four options for adjusting to a finite environment, and makes 60 recommendations to effectuate an environmental policy. Recommendations include a state environmental policy, an executive structure to implement an environmental policy, the role of the state fiscal policy, state, regional and local planning and zoning, population adjustment, transportation, open space and conservation, education and research.

Cooley, Richard A. and Geoffrey Wandesforde-Smith, ed.

*Congress and the Environment*. Seattle: University of Washington Press, 1970.

In a series of essays from individual contributors, this book examines whether or not the American political system, particularly the Congress, can cope with the economic, esthetic, and moral problems raised by the steady deterioration of our human environment.

“The Corps of Engineers Has a Strengthened Mandate to Protect Environmental Values,” *Conservation Foundation Letter*, August 1970: 1-12.

An old law and a new court decision: the powers of the Corps of Engineers to deal with environmental problems and how these powers might be used.

Council of State Governments.

*Environmental Quality and State Government*. Lexington: 1970.

Seeks to outline the problems, define the State role in them, and review what some States have done.

Crowell, Collier, McMillan Information Corporation.

*Environmental Pollution: A Guide to Current Research*. New York: In Press.

A listing of on-going research in several areas of the environment, based on the files of the Science Information Exchange.

Davies, J. Clarence III

*The Politics of Pollution*. New York: Pegasus, 1970.

Describes how government pollution policy is made, and lays the ground-work for improvements in the policy process by analyzing the interests and ideas competing for dominance over pollution control. Part I, “The Pollution Challenge and the Legislative Response,” describes the nature of the pollution problem and the growth of interest in environmental quality. Part II deals with the forces which have shaped pollution policy: Congress, the Executive Branch, public opinion, interest groups, and state and local government. The role which each has played and the interaction among these different forces is analyzed. The final section examines the major policy processes in controlling pollution — research, standard-setting, and compliance.

De Bell, Garrett, ed.

*The Environmental Handbook*. New York: Ballantine Books, 1970.

“To serve as a source of ideas and tactics for the 1970 teach-in, this

handbook brings together students, scientists, writers and others to focus on some of the major problems of our deteriorating environment, explains the nature of ecology and, most importantly, suggests action that can be taken right now in any community, by any individual."

Degler, Stanley E. and Sandra C. Bloom

*Federal Pollution Control Programs: Water, Air, and Solid Wastes.* Washington: Bureau of National Affairs, 1969.

A detailed discussion of existing federal spending, research, and enforcement programs for air, water, and solid wastes, a discussion of legislation unfinished by the 90th Congress, and a look at what the future may hold. Contains information on the water quality standards, the water and air enforcement programs, and the text of relevant federal laws.

Durett, Eustace

"Environmental Readings," *The American County*, Vol. 35, No. 8, August 1970: 39.

Describes several reports that would be helpful in achieving county environmental goals.

Duesterhaus, Richard L.

"A Multicounty Natural Resource Service Center," *Soil Conservation*, February 1970: 152-153.

The Northeast Illinois Natural Resource Service Center, near Chicago, encourages seven counties to help each other find solutions to natural resource and environmental problems.

Eagle, George H.

"Ohio's Environment; the Surging 70's," *Ohio Cities and Villages*, Vol. 18, No. 1, January 1970: 9-11.

Higher and higher standards for environmental quality in Ohio will require more and more money as well as enabling laws for necessary state and regional authorities to more economically and realistically meet the problems.

"Environmental Law Conference Proposes National Legal Action-Information Center," *Conservation Foundation Letter*, September 30, 1969: 1-12.

Conservation law specialists meet, propose action for greater involvement of legal profession in fight for environmental quality.

"Environmental Quality Actions," *Outdoor Recreation Action*, No. 15, April

1970: 1-46.

Includes an environmental situation report, a review of the best approaches for restoring and preserving the environment and forecasts for the future.

Ewald, William R., Jr., ed.

*Environment and Policy: the Next Fifty Years*. Bloomington: Indiana University Press, 1968.

The authors attempt to specify steps to be taken by 1970, 1980, 2000, and 2017 to achieve man's optimum environment. They attempt to delineate the essential plans to be made in order to implement programs conceived, to personally involve the greatest number of people, and to specify the leadership required. Each discusses the implications of his recommendations at the world, national, regional, and local levels as well as the professional expertise that will be needed to carry them out. Emphasis is placed on the steps to be taken in urban areas, but recommendations are also made for rural areas, small towns, and wilderness and open beach areas.

Ewald, William R., Jr., ed.

*Environment and Change: the Next Fifty Years*. Bloomington: Indiana University Press, 1968.

A collection of essentially "philosophic" papers which seek to define the human scope of the term environment, the forces of change, the competence we have so far developed to cope with change, the role of the individual and society in the future, and a recognition of the true context of the future: youth, technology and the world.

Hagevik, George

*Planning for Environmental Quality*. Monticello: Council of Planning Librarians, 1969. (Exchange Bibliography #97)

Survey bibliography, designed to familiarize anyone interested in planning with the problems, issues, institutional contexts and substantive content of the broad area which can be called planning for environmental quality.

Halstead, Walter P.

"Environmental Quality — The County Mission for the 70's," *The American County*, Vol. 35, No. 8, August 1970: 14-15+.

For reasons of economy, more efficient use of skills and resources, and more effective control, it appears that county government should give thoughtful consideration and study to the establishment



of a single environmental control agency to assist and guide local governments.

Hawaii. Department of Planning and Economic Development. Research and Economic Analysis Division.

*Economic Incentives for Protection of the Environment*, by Robert L. Lucas. Honolulu: 1970.

Several types of economic incentives are discussed in light of the theoretical and practical problems that must be dealt with in order to successfully design, implement, and enforce a system of incentives.

Heller, Frank

"Citizens and the Environmental Bandwagon," *Nation's Cities*, Vol. 8, No. 5, May 1970: 12-13.

The current public interest and participation in environmental teach-ins, court suits, and demonstrations touches many municipalities.

Horsfall, James G.

"Designing an Environmental Policy," *Connecticut Government*, Vol. 24, No. 1, Fall 1970: 6-8.

Dr. Horsfall, chairman of the Governor's Committee on Environmental Policy, describes the operations of the group and presents its major recommendations.

Indiana. University. Bureau of Public Discussion.

*Environment, "Progress," and Quality of Life; a Study-Discussion Guide*. Bloomington: 1970.

Designed to acquaint the intelligent and concerned non-specialist with a survey of environmental problems, their causes, and hints at their solutions.

"Is Man Playing a Game of Environmental Russian Roulette?," *Conservation Foundation Letter*, February 23, 1968: 1-12.

Who's minding the environmental store? Who should? What don't we know? What dangers do we face? Some background and proposals for an ecological overview.

Jarrett, Henry, ed.

*Environmental Quality in a Growing Economy*. Baltimore: The Johns Hopkins Press, 1966.

A collection of essays dealing with the new emphasis on quality,

rather than just quantity, in the management of natural resources. Includes two essays on needed improvements in policies and institutions: "New Tasks for All Levels of Government," by Norton E. Long and "Some New Machinery to Help do the Job," by Jacob H. Beuscher.

Jones, James A.

"Bloomington's Natural Resources Commission is Active," *Minnesota Municipalities*, Vol. 55, No. 3, March 1970: 79.

Describes the activities of the Commission, a permanent advisory body to the City Council, devoting its attention to the natural resources of the community.

Klausner, Samuel Z., ed.

"Society and Its Physical Environment," *Annals*, Vol. 389, May 1970: 1-115.

Contents are grouped under the headings: The Nature of the Environmental Threat; Society, Personality and Environmental Usurfruct; The Economics of Common Environmental Property; Emerging Environmental Law; Organizing for Environmental Planning.

Lewin, Stuart F., Alan H. Gordon and Channing J. Hartelius.

*Law and the Municipal Ecology: Air, Water, Noise, Over-Population*. Washington: National Institute of Municipal Law Officers, 1970.

This report provides the city attorney with a discussion of the Federal, state and municipal regulations useful to him in forcing the polluter to clean up. Particular attention has been given to provide a range of sanctions which will be effective against all polluters whether they are within city jurisdiction, outside city jurisdiction but within state jurisdiction, or outside of both city and state jurisdiction.

Libby, L.M., compiler.

*Fifty Environmental Problems of Timely Importance*. Santa Monica: Rand Corporation, 1970.

This paper surveys some of the most recognizable and pressing problems of the environment, and includes comments on them from the current literature.

Lieber, Harvey

"Public Administration and Environmental Quality," *Public Administration Review*, Vol. 30, No. 3, May/June 1970: 277-286.

A survey of the public policy and institutional reaction to the environmental crisis.

“Local Government and the Environment: How Serious Are We?,” *The Local Government Newsletter*, Vol. 21, No. 9, May 1970: 1+.

If environmental problems are to be attacked seriously, it will be necessary to focus on values and the relationship of values to the problems.

“Man and His Environment: A Reading List for Municipal Officials,” *Michigan Municipal Review*, Vol. 53, No. 7, July 1970: 155-156.

Designed to provide an introduction for municipal officials to the subject of man and his environment.

Michigan. Office of Planning Coordination. Bureau of Policies and Programs. *Environmental Quality in Michigan*. Lansing: 1970.

Reports on the actions and recommendations of the Advisory Council for Environmental Quality, which was charged with harmonizing various departmental programs having environmental quality ramifications, and apprising the effectiveness of current environmental management programs and policies as well as exploring new avenues of actions.

Monola, Davis

“The Fragmentation of Environmental Protection Services,” *Virginia Town and City*, Vol. 5, No. 3, March 1970: 11.

Attempts to compartmentalize categories of pollution into a bureaucratic system treating each component as a separate entity has proven a dismal failure.

Montgomery, Hugh B.

“Environmental Analysis in Local Development Planning,” *Appalachia*, Vol. 3, No. 3, November-December 1969: 1-11.

A consulting geologist explains why the analysis of physical resources is important in planning and how this can be carried out.

National Academy of Sciences. National Academy of Engineering. Environmental Studies Board. Environmental Studies Group.

*Institutions for Effective Management of the Environment*. Washington: 1970.

Concludes that a much greater emphasis on environmental monitoring is essential, as is the development of an Environmental Quality Index as a management tool, the establishment of a Board of

Environmental Affairs within the Office of the President and a National Laboratory for Environmental Science. Proposes a new Institute for Environmental Studies to provide continuing systematic analysis in support of our efforts to deal with the environment and our national policies affecting the environment.

National Governors' Conference.

*Policy Positions*. Washington: 1970

Includes a section on natural resources and environment.

National Legislative Conference. Intergovernmental Relations Committee.

*Policy Positions and Final Report*. Washington: Office of Federal-State Relations, 1970.

The Task Force on Natural Resources was charged with the responsibility of assisting the Intergovernmental Relations Committee in analyzing issues and developing policies relating to the quality of the environment, and to the wise and rational development of the nation's natural resources. In carrying out this mandate, the Task Force has sought to identify the major federal-state issues, and to assign priorities and courses for action.

New York City. Environmental Protection Administration.

*Environmental Prospectus*. New York: 1970.

Early in 1968, Mayor John V. Lindsay created the Environmental Protection Administration to plan and execute a major effort to restore the quality of the City's physical environment. This report is a review of accomplishments during the first two years of the coordinated attack on air, water, and land pollution, and a blueprint of the action that must occupy the City in the years ahead.

Oregon. Department of Planning and Development.

*Resources for Development*. Portland: 1964.

One element of the statewide planning study, this report was designed to develop a body of information about the existing physical resources and facilities of the state. The report describes the political structure, natural resources, land use and public land ownership, transportation and public facilities of Oregon.

Perloff, Harvey S., ed.

*The Quality of the Urban Environment: Essays on "New Resources" in an Urban Age*. Baltimore: The Johns Hopkins Press, 1969.

This collection of essays attempts to clarify the nature of the complex problems of the urban environment, sharpen concepts,

review existing sources of information, and improve measurement tools (including measurement of alternative proposed solutions). The main purpose is to probe concepts that will be useful to scholars concerned with environmental research and to policy makers concerned with narrowing the gap between intellectual speculation and practical application.

“Pollution by State Agencies and Institutions,” *Planning for Progress*, Vol. 4, Nos. 1 and 2, Spring-Summer 1970: 6-7+.

Reports where, how, and to what extent the State’s 317 agencies and 70 institutions contribute to pollution in North Carolina and includes recommendations for correction of existing problems, as well as elimination of future occurrences.

“Pollution: Will Man Succeed in Destroying Himself?,” *Congressional Quarterly*, Vol. 28, No. 5, January 30, 1970: 279-285.

Describes the emergence of the environment as one of the primary political issues of 1970 – and perhaps the new decade.

Rockefeller, Nelson A.

*Our Environment Can Be Saved*. New York: Doubleday, 1970.

This book sets forth what New York State has done, is doing, and plans to do about environmental problems.

Ruff, Larry E.

“The Economic Common Sense of Pollution,” *The Public Interest*, No. 19, Spring 1970: 69-85.

Contends that we are going to make very little real progress in solving the problem of pollution until we recognize it for what, primarily, it is: an economic problem, which must be understood in economic terms.

Scheffey, Andrew J. W.

*Conservation Commissions in Massachusetts; with a Supplementary Report on the Emergence of Conservation Commissions in Six Other Northeast States*, by William J. Duddleson. Washington: The Conservation Foundation, 1969.

After tracing the origins of the movement, the author draws upon a variety of specific Massachusetts experiences to illustrate the commissions’ growing pains and their growing influence. He describes commission successes in the acquisition and protection of open space and wildlife areas, in sparking grassroots interest in pollution control and in acting as catalyst for conservation action by

other local and state agencies and by many private interests. He sees the conservation commission as a "point of departure" for the future — as an effective local mechanism for coping with a wide range of the local environmental conflicts that lie ahead.

Sherrod, H. Floyd, Jr., ed.

*Environment Law Review — 1970*. New York: Clark Boardman Co., Ltd., 1970.

The first of a projected annual series, this book provides lawyers with recent periodical writings in the field of environmental law which are often out of their reach, scattered in big and little journals. It presents 23 law journal articles of 1968-1970 in one hard-cover volume.

Smith, Dan Throop

"Improvement in the Quality of the Environment: Costs and Benefits," *Tax Policy*, Vol. 37, Nos. 3-4, March-April 1970: 3-11.

Concludes that the costs will be substantial, varied, and in some respects subtle. The benefits will not necessarily be measurable or even in all instances positive. Some of the benefits will amount to no more than prevention of further deterioration. The ultimate benefit will simply be the chance to maintain a decent human existence.

"State Agencies Responsible for Environmental Quality," *Outdoor Recreation Action*, Report No. 16, July 1970: 19-28.

Identifies agencies and their major responsibilities.

"States Need More Federal Funds to Combat Pollution; Fact Sheet," *Congressional Quarterly*, Vol. 28, No. 15, April 10, 1970: 972-975.

States are trying to catch up on long-neglected pollution problems, but they complain the federal government is not giving them the funds they need.

"The States, Playing a Crucial Role in Environmental Management, Try a Variety of Innovations in 1970," *Conservation Foundation Letter*, November 1970: 1-12.

The states pass a wide range of environmental legislation — a sampling of new laws dealing with land use, pollution control, agency reorganization and citizen suits to assert environmental rights.

Stepp, J.M. and H.H. Macaulay.

*The Pollution Problem; Special Analysis*. Washington: American Enter-

prise Institute for Public Policy Research, 1968.

Since interest in a specific problem does not insure that legislation and action programs will be wise, or at the least harmless, it is desirable that people interested in the pollution problem make a special effort to see its various facets in proper perspective and to understand some of the more important economic and political side-effects of various pollution-control measures. This Analysis attempts to contribute to such understanding.

Tri-State Transportation Commission.

*Managing the Natural Environment: A Regional Plan for Water, Sewage, Air and Refuse.* New York: 1970.

Concerned with pollution of air and water, with the search for enlarged water supplies and with the accelerating problems of solid-waste disposal, this report provides a look at the status and the needs of "regional housekeeping" both now and in the future.

U.S. Congress. House. Committee on Government Operations.

*The Environmental Decade (Action Proposals for the 1970's); Hearings.* Washington: Government Printing Office, 1970.

Hearings designed to answer the following questions:

- (1) What must government do to strengthen or redirect its existing programs for environmental protection and improvement?
- (2) Which programs should be expanded, curtailed, or eliminated? How? Why?
- (3) How can programs at all levels of government be better coordinated to achieve maximum economy, efficiency, and effectiveness?
- (4) What would be the cost of new programs to protect and enhance the quality of the environment? Who should administer such programs?
- (5) How can we encourage more public participation in the consideration of proposals that affect the environment?
- (6) How can we make public agencies and officials more responsive to environmental concerns in the administration of environmental programs?
- (7) Can the public effectively protect our air and water through class action litigation?
- (8) How should the federal grant programs be strengthened to help protect and improve environmental values?

U.S. Congress. House. Committee on Science and Astronautics. Subcommittee on Science, Research, and Development.

*Managing the Environment.* Washington: Government Printing Office 1968.

A summary of current information from the Subcommittee's hearings, consultants and staff studies on the means by which science and technology can serve the national goals of environmental quality and economic progress.

U.S. Congress. Senate. Committee on Government Operations. Subcommittee on Reorganization and International Organizations.

*Interagency Environmental Hazards Coordination: Pesticides and Public Policy; Report.* Washington: Government Printing Office, 1966.

Summarizes the state of knowledge, analyzes the public policy issues, and presents a course of further study and action.

U.S. Congress. Senate. Committee on Interior and Insular Affairs.

*A Definition of the Scope of Environmental Management.* Washington: Government Printing Office, 1970.

Develops a classification system of environmental management activities designed to create an operational definition of environmental management which encompasses those aspects of federal action in which environmental considerations are paramount.

U.S. Congress. Senate. Committee on Interior and Insular Affairs.

*Law and the Environment; Selected Materials on Tax Exempt Status and Public Interest Litigation.* Washington: Government Printing Office, 1970.

A compilation of documents which help to explain the role of private litigation in protecting the environment, the issues regarding tax-exempt status for organizations involved in environmental litigation, and comments thereon by the organizations directly affected and other interested parties.

U.S. Congress. Senate. Committee on Interior and Insular Affairs.

*A National Policy for the Environment: A Report on the Need for a National Policy for the Environment: An Explanation of Its Purpose and Content; An Exploration of Means to Make It Effective; and A Listing of Questions Implicit in Its Establishment; A Special Report.* Washington: Government Printing Office, 1968.

Attempts to place some of the fundamental questions concerning the need for and the elements of a national environmental policy into the arena of public debate.



U.S. Congress. Senate. Committee on Interior and Insular Affairs, and House. Committee on Science and Astronautics.

*Joint House-Senate Colloquium to Discuss a National Policy for the Environment; Hearings.* Washington: Government Printing Office, 1968.

Several committee and subcommittee chairmen of the House and Senate, together with other members, joined in an informal study session aimed at obviating certain jurisdictional limitations of the committees they represent. The purpose was to collaborate in a survey of policies for environmental management in order that all of the committees concerned might gain fuller knowledge and understanding of the requirements for effective legislation and overview in the environmental field.

U.S. Congress. Senate. Committee on Public Works.

*The Case for National Environmental Laboratories; A Report Prepared by the Ad Hoc NEL Concept Committee, Oak Ridge National Laboratory.* Washington: Government Printing Office, 1970.

Proposes the establishment of (or conversion of certain existing organizations to) National Environmental Laboratories, whose missions can be broadly defined as: (1) The development, collection, and storage of information concerning activities that affect man's environment and the dissemination of such information to all individuals, groups, organizations, and institutions that seek it; and (2) Developing and presenting to policy makers at all levels — without recommendations — ordered sets of alternatives whose relative costs and benefits are clearly defined.

U.S. Council on Environmental Quality.

*Environmental Quality: First Annual Report.* Washington: 1970.

Seeks to describe the conditions of our environment, and to identify major trends, problems, actions under way and opportunities for the future. After an introduction to the concepts of environmental problems and a review of Federal organization for environmental quality, the report deals with specific problems: water, air, weather and climate, solid wastes, noise, pesticides and radiation, population and land use. Finally, the report looks at the need for international cooperation, citizen participation, and environmental education.

U.S. Department of Health, Education and Welfare. Task Force on Environmental Health and Related Problems.

*A Strategy for a Livable Environment.* Washington: Government Printing Office, 1967.

The report has two thrusts: first, identifying those environmental

hazards which need action now and determining what initial steps offer the most immediate beneficial return; and, second, creating a system by which new action goals can be developed and met in the future. It includes 34 principal recommendations; ten of these are action goals, ten deal with the creation of an environmental protection system, and the remainder are miscellaneous recommendations which support the goals and system.

U.S. Department of Housing and Urban Development. Office of Metropolitan Planning and Development. Office of Planning Assistance and Standards.

*Sediment Control; Proceedings of the National Conference.* Washington: Government Printing Office, 1970.

Proceedings of a conference designed to bring together key representatives of state, regional and local agencies to explore ways of combating soil erosion and sediment problems in urban and suburban areas.

U.S. President's Council on Recreation and Natural Beauty.

*From Sea to Shining Sea; A Report on the American Environment – Our Natural Heritage.* Washington: Government Printing Office, 1968.

Presents proposals and recommendations which will stimulate Federal, State, local and private action to further enhance the quality of the environment and the beauty of the nation.

U.S. President's Science Advisory Committee. Environmental Pollution Panel.  
*Restoring the Quality of Our Environment.* Washington: Government Printing Office, 1965.

A comprehensive survey of the deterioration of the various components of the environment, with recommendations for action by all levels of government to assure the lessening of pollution already about us and to prevent unacceptable environmental deterioration in the future.

“Vested Interests Disagree on How to Fight Pollution,” *Congressional Quarterly*, Vol. 28, No. 26, June 26, 1970: 1645-1648.

The environmental crisis involves the welfare not only of all Americans but also of many of their institutions and of basic elements in the nation's economy. While many vested interests agree on the need for action, much room for disagreement exists on what should be done, how it should be done and where the power of decision should rest.

Washington. State Planning Division. Office of Program Planning and Fiscal Management.

*Environmental Quality . . . a Program for Washington.* Olympia: 1970.

Outlines the most pressing environmental issues in the state. Presents a concept which relates the interdependencies of air and water pollution with solid waste management and with water as an expendable resource.

“Washington’s Environmental Fever,” *Nation’s Cities*, Vol. 8, No. 5, May 1970: 8-11+.

Reviews the impact on cities of the multitude of environmental control proposals being considered by Congress.

Wickwar, W. Hardy

“Environmental Management,” *Governmental Review*, Vol. XII, No. 4, November 1970: 1-4.

A brief review of the role of individuals and the various levels of government in protecting the environment.

“Will the President’s Reorganization Plans Lead to Better Management of the Environment?,” *Conservation Foundation Letter*, September 1970: 1-12.

Reshuffling the bureaucracy . . . How will the Commerce Department handle the marine environment to be entrusted to it? . . . How will the proposed new environmental “police force” fare?

Wilson, Douglas B.

“Tax Assistance and Environmental Pollution,” *Tax Policy*, Vol. 37, Nos. 7-8, July-August 1970: 3-11.

Concludes that air and water resources are limited resources, and seeks to answer the questions of how they should be rationed and whether tax assistance aids in this rationing.

## **The Environment: Specific Areas of Concern**

### **Air**

“Air Pollution . . . A Critical Problem!,” *State Government Administration*, Vol. 2, No. 11, November 1967: 4-7+.

A survey of state actions being taken to control the problem of air pollution.

Arey, Richard W.

“Virginia Directs Attention to Air Pollution,” *Virginia Town and City*, Vol. 2, No. 6, June 1967: 11-15.

Briefly describes the types of air pollution in Virginia and the activities of the State Air Pollution Control Board and the Local Air Pollution Control Districts.

Bueche, Kenneth G. and Morris J. Schur.

*Air Pollution Control – Selected Governmental Approaches: Possibilities for Colorado*. Boulder: Bureau of Governmental Research and Service, University of Colorado, 1963.

The purpose of this study is to examine critically the role of government – federal, state, and local – in controlling air pollution. Its primary concern is with the metropolitan problem, and, particularly, with the appropriate governmental role with regard to metropolitan Denver.

“Civilization is the Major Cause of Air Pollution,” *Congressional Quarterly*, Vol. 28, No. 23, June 5, 1970: 1505-1509.

As air pollution becomes an increasingly serious problem Congress is split over the question of who should set air quality standards, states or the Federal Government. The Senate tends to back the states; the President and the House tend to back federal control.

Degler, Stanley E.

*State Air Pollution Control Laws*. Washington: Bureau of National Affairs, 1970.

A summary of the status of the law on air pollution control in each state, the District of Columbia, Puerto Rico, and the cities of Chicago, Detroit, New York, Philadelphia, and Pittsburgh. The administering agency and a brief listing of the subject matter of regulations is included for each state, as well as a citation of the state air pollution control law.

Delogu, Orlando E.

“Legal Aspects of Air Pollution Control and Proposed State Legislation for Such Control,” *Wisconsin Law Review*, Vol. 1969, No. 3: 884-907.

A model air pollution statute that presents a comprehensive governmental regulatory scheme, and underscores the need for a partnership of government and industry in order to effectuate the goal of control.

Diamond, Roger

“Cities Have Vital Role in Air Control Board’s Program – As Enforcers and Offenders,” *Texas Town and City*, Vol. 57, No. 5, May 1970: 6-7+.

Describes Texas cities’ dual role in the air pollution control program: while they are imbued by the law with strong enforcement powers and responsibilities, they are also potential violators.

Esposito, John C.

*Vanishing Air; the Ralph Nader Study Group Report on Air Pollution*. New York: Grossman Publishers, 1970.

“ . . . probes deeply not only the failure of legislators and administrators to develop and deploy the law against air polluters but also the tragic distortion of law and legal processes into shields for polluters against citizen participation and the public’s health.”

“Far-Reaching Bill Pending in Congress Would Launch Major New Attacks on Air Pollution,” *Conservation Foundation Letter*, October 1970: 1-12.

Congress considers a tough new air pollution control law . . . what are its changes? . . . how effective would it be? . . . and the problem of money.

Fromson, Jeffrey

“A History of Federal Air Pollution Control,” *Ohio State Law Journal*, Vol. 30, No. 3, Summer 1969: 516-536.

A legislative history of the Air Quality Act, designed to illustrate the importance, as well as the glaring inadequacies, of federal pollution law.

Gaston, Daniel J. and Richard W. Arey.

“Local Government and Air Pollution Control,” *Virginia Town and City*, Vol. 5, No. 1, January 1970: 9-14.

Outlines the relationships between the State Air Pollution Control Board and local political subdivisions.

Goldshore, Lewis

“The Local Air Pollution Control Ordinance,” *New Jersey Municipalities*, Vol. 47, No. 4, April 1970: 6-7+.

Explains the relationship between the state air pollution program and the existing and prospective local programs.

Griswold, S. Smith

“The States and Air Pollution,” *State Government*, Vol. 43, No. 3, Summer 1970: 147-151.

Despite the certainty that they will be subjected to intensified political and economic pressures, delaying tactics, and criticism from all sides, State officials must achieve air quality goals by the adoption of strict regulation on pollution sources and diligent enforcement of those regulations.

Hagevik, George H.

*Decision-Making in Air Pollution Control*. New York: Praeger, 1970.  
A review of theory and practice, with emphasis on selected Los Angeles and New York City Management experience.

Havighurst, Clark C., ed.

"Air Pollution Control; Symposium," *Law and Contemporary Problems*, Vol. 33, Spring 1968: 195-426.

A review of the current state of thinking and action on air pollution control. Partial contents: "State Control of Interstate Air Pollution," by Lewis C. Green. - "Legal Boundaries of Air Pollution Control - State and Local Legislative Purpose and Techniques," by Lawrence W. Pollack.

Kentucky. Legislative Research Commission.

*Air Pollution Control Systems; Research Report*. Frankfort: 1966.

Surveys the legislative, administrative, economic, and public health aspects of the problem of air pollution control. Concludes that all levels of government necessarily must be involved in a proper program of air pollution control.

Middleton, John T.

"Clean Air . . . A Challenge for Counties," *Ohio County News*, Vol. 20, No. 5, November 1967: 3-4+.

Stresses the importance of the county as the only existing local legislative entity that has been able to mount pollution control programs serving more than a single municipality.

National Association of Counties.

*Community Action Guides for Air Pollution Control*. Washington: 1966.

The national air pollution problem is many local problems put together. The purpose of these guides is to provide the necessary information to enable local governments to mobilize effective programs to meet the challenge of solving these problems.

Nevada. League of Women Voters.

"Air Pollution in Nevada," *Governmental Research Newsletter*, Vol. 8,

Nos. 7 and 8, May and June 1970.

Includes inventory of pollution sources, identifiable effects of air pollution, action (or lack of) at federal, state, and local levels and glossary of terms.

New York City. Mayor's Task Force on Air Pollution.

*Freedom to Breathe*. New York: 1966.

Recommends a comprehensive program for a far-reaching and effective campaign against air pollution, and develops a three-stage approach for implementing the program.

Northeastern Illinois Planning Commission.

*Managing the Air Resource in Northeastern Illinois*. Chicago: 1967.

Attempts to evaluate existing and potential air pollution problems in the Northeastern Illinois Metropolitan Area and to recommend measures for achieving and maintaining improved air quality. Special attention is given to the potential role of comprehensive land use planning in an air resource management program.

Nourse, Hugh O.

"Is There an Economic Solution to the Air Pollution Problem?," *Newsletter* (Bureau of Community Planning, University of Illinois) Vol. 9, No. 5, Fall 1969: 1-4.

Looking at air pollution as an external diseconomy, the author points out that the problem cannot be solved by private enterprise, but needs governmental regulation. He suggests that the problem of air pollution can perhaps best be handled as a political one, even if it is truly an economic matter.

Ridker, Ronald G.

*Economic Costs of Air Pollution: Studies in Measurement*. New York: Praeger, 1967.

Outgrowth of a 3 year study for U.S. Public Health Service on the economic problems of air pollution.

Rydell, C. Peter and Gretchen Schwarz

"Air Pollution and Urban Form: A Review of Current Literature; Review Article," *Journal of the American Institute of Planners*, Vol. 34, No. 2, March 1968: 115-120.

The design of our cities affects the concentration of the pollution in the air — planners must begin to design the urban form to clean the air we breathe.

Seaman, Roger G.

“Water and Air Pollution . . . What Do You Control First?” *Illinois Municipal Review*, Vol. 46, No. 8, August 1967: 7-9+.

Urges merger of air and water pollution control on the Federal level and a greater awareness and cooperation on the local level.

Seymour, Whitney N.

“Cleaning Up Our City Air: Proposals for Combating Air Pollution Through Affirmative Government Action Programs,” *Urban Affairs Quarterly*, Vol. 3, No. 1, September 1967: 34-45.

“Government has so far only thought in terms of being the traffic cop. Yet government itself is one the major contributors to air pollution, and it has in its power the opportunity for providing some dramatic solutions to the pollution problem.”

Stern, A.C., ed.

*Air Pollution*. New York: Academic Press, 1968.

Concerned with the cause, effect, transport, measurement and control of air pollution.

Tozzi, John

“Aids to Local Air Pollution Control Programs,” *New Jersey Municipalities*, Vol. 47, No. 4, April 1970: 6-7+.

U.S. Congress. Senate. Committee on Public Works.

*Manpower and Training Needs for Air Pollution Control; Report of the Secretary of Health, Education and Welfare to the Congress of the United States*. Washington: Government Printing Office, 1970.

Surveys the manpower needs of the public and private sectors and describes what steps have been and will be taken to meet the manpower and training needs in the air pollution control field. Includes detailed information on non-Federal control agency manpower needs; the salaries paid by State, local, and regional agencies; the vacancy rate of non-Federal control agencies; the manpower needs of air pollution control by the private sector; and what training programs are available to develop personnel in the air pollution control field.

U.S. Congress. Senate. Committee on Public Works.

*Progress in the Prevention and Control of Air Pollution; Third Report of the Secretary of Health, Education and Welfare to the Congress of the United States*. Washington: Government Printing Office, 1970.

Reports on Effects and Surveillance, which encompasses those



activities necessary to meet the Nation's need for improved knowledge of the nature, magnitude, and effects of the problem of air pollution; and Control and Compliance, which encompasses those activities necessary to insure timely development and application of techniques for preventing and controlling air pollution.

U.S. Congress. Senate. Committee on Public Works. Subcommittee on Air and Water Pollution.

*Air Quality Criteria*. Washington: Government Printing Office, 1968.

Designed to summarize, in a descriptive manner, existing evidence on the nature, type, and extent of air pollution health effects. A framework is provided for evaluation of the completeness of current knowledge and additional research needs.

U.S. Department of Health, Education and Welfare. Public Health Service. Division of Air Pollution.

*An Air Resource Management Plan for the Nashville Metropolitan Area*. Washington: Government Printing Office, 1965.

The object of this report is to provide information that will help the citizens and government of the Nashville Metropolitan Area understand the nature and importance of their air pollution problems and to assist in developing a course of action for improvement of air quality in the immediate future and for management of air resources in years to come. Although developed specifically for the Nashville area, the report has general use for program development and reference in many other places.

U.S. Department of Health, Education and Welfare. Public Health Service. National Air Pollution Control Administration.

*Air Pollution Publications, 1966-1968*. Washington: Government Printing Office, 1969.

Covers such aspects of the problem as the sources of air pollution and their control; effects of pollutants on man, fauna, flora, and materials; air quality standards; legal and social aspects; and basic science and technology.

U.S. Department of Health, Education and Welfare. Public Health Service. National Air Pollution Control Administration.

*Guide to Research in Air Pollution*. Washington: Government Printing Office, 1970.

Lists projects active in the past calendar year. The *Guide* is divided into 3 parts: (1) a project list in which each domestic project is listed

by state and each foreign project is listed by country; (2) a listing by subject; and (3) a listing by name of the principal investigator.

U.S. Department of Health, Education and Welfare. Public Health Service. National Air Pollution Control Administration.

*Guidelines for the Development of Air Quality Standards and Implementation Plans.* Washington: Government Printing Office, 1969.

Furnishes guidance to the states in carrying out functions assigned to them under the Air Quality Act of 1967.

U.S. Department of Health, Education and Welfare. Public Health Service. National Air Pollution Control Administration.

*Manual for the Development of State Recommendations for Air Quality Control Regions.* Washington: Government Printing Office, 1970.

Outlines a policy by which states may, upon their own initiative, recommend to the National Air Pollution Control Administration boundaries for air quality control regions.

Virginia. Advisory Legislative Council.

*Air Pollution.* Richmond: 1965.

Evaluates the extent to which air pollution is a problem and is likely to become greater, measures which might be employed to reduce this threat and the most appropriate course which the state should take.

“When Will We Have Cleaner Air?,” *Conservation Foundation Letter*, January 31, 1969: 1-12.

Countdown for clean air begins as nation gets first federal law strong enough to control air pollution: what the law provides.

Wolozin, Harold, ed.

*The Economics of Air Pollution; A Symposium.* New York: W. W. Norton and Co., 1966.

The aspect of the air-pollution problem which commands the economist's attention is the fact that clean air is a resource; it is either a final product or an intermediate one in the language of national accounting, and it is becoming increasingly scarce. The sum of this volume on air pollution is an application of the techniques evolved by economists to analyze economic decisions of individuals, households, business firms, and society as a whole, and an attempt to identify the areas where the techniques fail, where work must be done.

## Power

“Can We Have All the Electricity We Want and a Decent Environment Too?,”  
*Conservation Foundation Letter*, March 1970: 1-12.

Who decides where to put new power facilities? Who judges impact on environmental quality: Some problems and some approaches to solving a major quandary.

Electric Utility Industry Task Force on Environment.

*The Electric Utility Industry and the Environment; A Report to the Citizens Advisory Committee on Recreation and Natural Beauty*. New York: 1968.

Surveys and recommends actions on the most important facets of the industry where conservative programs for improvement could and should be created; in the planning and building of transmission lines; the undergrounding of distribution lines; the urban siting of nuclear plants; the protection of air and water; and the general beautification of facilities.

Illinois. State Geological Survey.

*Power and the Environment – A Potential Crisis in Energy Supply*. Urbana: 1970.

Concludes that if both the demand for power and the demand for environmental protection are to be met, extensive research and technical progress, requiring both large amounts of money and considerable time, will be needed.

U.S. Congress. Senate. Committee on Government Operation. Subcommittee on Intergovernmental Relations.

*Intergovernmental Coordination of Power Development and Environmental Protection Act; Hearings*. Washington: Government Printing Office, 1970. 2 vol.

Hearings on legislation designed to provide a regional, intergovernmental mechanism in order to promote sound planning in electric power development and, at the same time, protect the public interest with respect to the environmental impact of such development.

U.S. Congress. Joint Committee on Atomic Energy.

*Selected Materials on Environmental Effects of Producing Electric Power*. Washington: Government Printing Office, 1969.

A consolidation of several background documents dealing with the problem of meeting greater power demands while still protecting the environment.

U.S. Congress. Joint Economic Committee.

*The Economy, Energy, and the Environment*; prepared by the Legislative Reference Service, Library of Congress. Washington: 1970.

A background study which surveys the existing literature on various technical aspects of electric power production, with primary emphasis on the supply of the various fuels used in the production of electricity and on the environmental consequences of energy conversion.

U.S. Department of the Interior and U.S. Department of Agriculture.

*Environmental Criteria for Electric Transmission Systems*. Washington: Government Printing Office, 1970.

Provides broadly based criteria to be applied by Federal land managing agencies to design regulations and enforce contractual standards of performance in the construction and maintenance of transmission systems.

U.S. Office of Science and Technology. Energy Policy Staff.

*Considerations Affecting Steam Power Plant Site Selection*. Washington: Government Printing Office, 1968.

Identifies such issues as the prospects and problems of metropolitan siting, underground transmission lines, the need to protect scenic areas and the quality of our air and water, and yet meet the nation's need for reliable, low-cost power supply.

U.S. Office of Science and Technology. Energy Policy Staff.

*Electric Power and the Environment*. Washington: Government Printing Office, 1970.

Proposes a four-part program for resolving the apparent conflict between power needs and environmental protection.

Recommends:

- (1) long-range planning of utility expansions on a regional basis at least 10 years ahead of construction,
- (2) participation in the planning by the environmental protection agencies and notice to the public of plant sites at least 5 years in advance of construction,
- (3) pre-construction review and approval of all new large power facilities by a public agency at the state or regional level, or by the federal government if the states fail to act,
- (4) an expanded program of research and development aimed at better pollution controls, underground high voltage power lines, improved generation techniques, and advanced siting approaches so

as to minimize the environmental problems inherent in existing technology.

U.S. Office of the Vice President.

*Working Committee on Utilities; Report to the Vice President and to the President's Council on Recreation and Natural Beauty.* Washington: Government Printing Office, 1968.

Recommendations for all levels of government, regulatory commissions, industry and its suppliers to develop a balanced program to minimize the impact of necessary utility facilities upon the quality of the Nation's environment.

### Shore Protection

California. San Francisco Bay Conservation and Development Commission.

*San Francisco Bay Plan.* Sacramento: 1969.

Plan for the conservation of the water of San Francisco Bay and the development of its shoreline.

"A Classic Confrontation in California: Citizens Move to Save San Francisco Bay," *Conservation Foundation Letter*, June 9, 1969: 1-12.

A look at the problems, the pressures and a plan for wise use and conservation of a superb natural resource — San Francisco Bay, a landmark case in environmental management.

"Federal Court Decision Jeopardizes Current Efforts to Safeguard Nation's Estuaries," *Conservation Foundation Letter*, April 22, 1968: 1-12.

Court decision shows need for new legislation to prevent destruction of estuaries. A look at the problem, the resource, what can be done and a call for action.

Ludwigson, John O.

"Managing the Environment in the Coastal Zone," *Environmental Reporter*, Vol. 1, No. 1, May 1, 1970.

Includes a survey of Federal and State coastal zone organization and activities.

National Academy of Sciences/National Academy of Engineering.

*Wastes Management Concepts for the Coastal Zone: Requirements for Research and Investigation.* Washington: 1970.

Outlines a program described as the minimum effort recommended for improving the Nation's ability to enhance the quality of the

coastal waters and estuaries, and to continue the position of leadership it has attained in the development of information on, and techniques for, the effective management of wastes. This program of expanded effort will be effective only if it is conducted jointly by those in government — local, state and national — and by those in industry who have responsibility for determining the goals and establishing the criteria for the management of wastes in the coastal zone.

“Needed: Effective Management of Our Priceless Shorelines and Estuaries,” *Conservation Foundation Letter*, May 1970: 1-12.

The nation’s coastlines, another dwindling natural resource: a look at some of the problems and proposals for effective management.

U.S. Commission on Marine Science, Engineering and Resources.

*Our Nation and the Sea; A Plan for National Action*. Washington: Government Printing Office, 1969.

An intensive investigation of a broad array of marine problems ranging from the preservation of our coastal shores and estuaries to the more effective use of the vast resources that lie within and below the sea.

U.S. Commission on Marine Science, Engineering and Resources.

*A Perspective of Regional and State Marine Environmental Activities: A Questionnaire Survey, Statistics and Observations*. Springfield: Clearinghouse for Federal Scientific and Technical Information, 1968.

Report of a survey of regional and State government activities and organizational arrangements for dealing with marine problems.

U.S. Commission on Marine Science, Engineering and Resources.

*State and Local Government Activities and Roles in Marine Science, Engineering and Development*. Springfield: Clearinghouse for Federal Scientific and Technical Information, 1968.

A briefly annotated catalogue of published studies and reports on organizational arrangements and activities in marine science, engineering, and resource development in the coastal States and States bordering the Great Lakes.

U.S. Congress. House. Committee on Merchant Marine and Fisheries. Subcommittee on Oceanography.

*Coastal Zone Management Conference*. Washington: Government Printing Office, 1969.

Conference on the organization, utilization, and implementation of the coastal zones of the United States.

Wenk, Edward, Jr.

“Productive Use of the Coastal Zone,” *State Government*, Vol. XLII, No. 2, Spring 1969: 105-111.

Describes efforts to involve Federal, State and local governments in planned and productive use of our coastal resources.

## Waste Disposal

American Public Works Association. Institute for Solid Wastes.

*Municipal Refuse Disposal*. Chicago: Public Administration Service, 1970.

Describes in detail the methods by which collected refuse can either be destroyed without contributing to another environmental crisis — air pollution — or when possible, recycled into usable replacements for our rapidly dwindling land and natural resources.

Association of Bay Area Governments.

*Refuse Disposal Needs Study*. Berkeley: 1965.

This report has two objectives:

(1) To present for the first time an objective report dealing with the refuse disposal problem on a regional level as the basis for:

a. An awakening of the general public and public officials to the seriousness of the refuse disposal problem and the need for immediate consideration of both long term solutions and short range improvement programs.

b. The development of more detailed studies and plans for refuse disposal programs on the local level.

(2) To point out the need for the initiation of more detailed studies and plans for refuse disposal programs on the local level.

Black and Veatch Co.

*Solid Waste Disposal Study for the Washington Metropolitan Area*. Washington: 1967.

Deals with the separate problems of individual jurisdictions as well as those that require joint or cooperative action on the part of two or more jurisdictions in several parts of the region.

Bossel, Hartmut H.

*Solid Waste: Problems and Solutions*. Santa Barbara: Mechanical Engi-

neering Department, University of California, 1970.

Surveys the solid waste problem in the United States and other advanced societies. Discusses present methods of solid waste disposal and the necessity of developing methods of waste reduction and conversion.

California. Department of Public Health.

*California Waste Management Study*. Sacramento: 1965.

An attempt at outlining a systematic approach for solving the overall problem of waste management in California by enabling the state to perform the following task:

(1) To assess the present and future magnitude of the problem by projecting the types and quantities of wastes to be handled in the next 25 to 35 years.

(2) To define the major elements of a waste management system.

(3) To assess the suitability of system analysis and system engineering as tools for solving waste management problems in a political and legal environment.

(4) To define studies, research, and development activities that are to be undertaken as the first step of an overall program.

Chamber of Commerce of the United States.

*County-Wide Plan Controls Dayton Area Pollution Problem*. Washington: 1968.

All political subdivisions in the county joined in creating a plan in which they deliver solid wastes to the county, and the county will close all privately-owned burning dumps now in use. The plan gives industries and municipalities economical waste disposal. It also stops the blighting of land and the pollution of the air from other disposal methods.

Citizens League.

*Metropolitan Area Refuse Collection and Disposal*. Minneapolis: 1966.

A survey of the problems of refuse disposal in the Twin Cities metropolitan area, and recommendations for improved handling.

Colorado. Legislative Council.

*Progress Report on Solid Waste Disposal*. Denver: 1967.

Defines the state's role in solid waste disposal, including the need to remove any impediments to the development of economic methods of waste disposal.



George, Patricia Conway.

“Solid Waste: America’s Neglected Pollutant,” *Nation’s Cities*, Vol. 8, Nos. 6 thru 9, June thru September 1970.

A four-part series which examines the dimensions of the solid waste problem, improving collection and disposal, future collection and disposal technology, and administration and current legislative proposals.

National Academy of Sciences – National Research Council.

*Waste Management and Control: A Report to the Federal Council on Science and Technology*. Washington: 1966.

Focusing on all aspects of the impact of wastes on the environment, this report concludes that public policies and institutional arrangements, and the extent to which they are supported, will largely determine the effectiveness with which the challenge of pollution is met. New technologies cannot be developed or applied without new institutional patterns. The report includes recommendations for all levels of government.

National Association of Counties. Research Foundation.

*Solid Waste Management*. Washington: 1969.

Ten pamphlets designed to present in clear, concise form information to help local officials and interested citizens make decisions on the planning, organization, financing, staffing, legal aspects, and operation of comprehensive areawide solid wastes management systems.

Northeastern Illinois Metropolitan Area Planning Commission.

*Refuse Disposal Needs and Practices in Northeastern Illinois*. Chicago: 1963.

Evaluates the refuse disposal situation, estimates further needs for disposal sites over the next two decades and develops policies for the guidance of local governments in refuse disposal planning and practice.

“Our Mounting Accumulation of Solid Wastes Poses Another Threat to the Environment,” *Conservation Foundation Letter*, September 27, 1968: 1-12.

The nation’s staggering problem of trash disposal . . . Congress moves, cautiously, to solve it . . . Some new techniques for handling wastes.

Regional Plan Association.

*Waste Management: Generation and Disposal of Solid, Liquid and*

*Gaseous Wastes in the New York Region.* New York: 1968.

This study has three objectives: (1) To specify procedures by which the problems of waste generation and waste management can be explicitly incorporated in regional planning; (2) To examine the impact of alternative settlement patterns on generation of wastes, environmental quality, and costs of waste management; (3) To indicate the impact of different waste management policies on waste generation, environmental quality, and the costs of waste management.

Small, William E.

*Third Pollution: The National Problem of Solid Waste Disposal.* New York: Praeger, 1970.

Presents a definitive picture of the costs and problems of solid waste disposal, placing particular emphasis on the discarded automobile and on agricultural and industrial waste materials.

Tasseff, Ann

"Solid Wastes Programs and Research," *Environment Reporter*, Vol. 1, No. 33, December 11, 1970.

A summary of current action and research programs.

U.S. Congress. House. Committee on Government Operations.

*The Establishment of a National Industrial Wastes Inventory.* Washington: Government Printing Office, 1970.

Describes the events leading up to the establishment, on October 21, 1970, of a national industrial wastes inventory, and the use to be made of the data which would be collected.

U.S. Department of Health, Education and Welfare. Public Health Service. Environmental Health Service. Bureau of Solid Waste Management.

*Developing a State Solid Waste Management Plan.* Washington: Government Printing Office, 1970.

Describes basic features of the planning process and their utilization in the development of a state plan for its solid waste management.

U.S. Department of Health, Education and Welfare. Public Health Service. Environmental Health Service. Bureau of Solid Waste Management.

*Policies for Solid Waste Management.* Washington: Government Printing Office, 1970.

Deals with the management of solid wastes generated in urban areas. The study deals with those aspects that concern the realities and

institutional activities of the present and the recent past and with appropriate courses of action for the future.

U.S. Department of Health, Education and Welfare. Public Health Service. Environmental Health Service. Bureau of Solid Waste Management.

*Systems Analysis of Regional Solid Waste Handling.* Washington: Government Printing Office, 1970.

Defines and performs a systems analysis of the solid waste handling problems concerning regional decision makers.

U.S. Office of Science and Technology.

*Solid Waste Management; A Comprehensive Assessment of Solid Waste Problems, Practices, and Needs.* Washington: Government Printing Office, 1969.

Reviews the major problems posed by the proliferation of solid wastes from all sources – broadly classified as urban, industrial, agricultural, and mineral. The analysis of current solid waste technology covered all its aspects – public and private – with particular attention to the systems of solid waste collection and transport, processing and utilization and disposal.

Urban Institute.

*Urban Waste Management: The Federal Role,* by Elizabeth Haskell. (Working Paper 102-13) Washington: 1970.

Recommends a comprehensive waste management approach, requiring two important changes: (1) All policies for liquid, gaseous and solid wastes would be closely integrated into a unitary approach; (2) The point of control on wastes to which positive and negative incentives are applied to secure action would range across the whole waste management system.

## Water

Cleary, Edward J.

*The ORSANCO Story: Water Quality Management in the Ohio Valley Under an Interstate Compact.* Baltimore: Johns Hopkins Press, 1967.

This book, written by the man who has been the executive director and chief engineer of ORSANCO since its establishment, is an account of why and how eight states in the Ohio Valley adopted an interstate compact to promote a regional program of pollution control, and what years of experience revealed about such an operation.

Cox, James L.

*Metropolitan Water Supply: The Denver Experience.* Boulder: Bureau of Governmental Research and Service, University of Colorado, 1967.

The underlying assumption of this study is that water supply may provide the vehicle by which a metropolitan political consciousness can be developed. Political consciousness can only be attained gradually, and it must be based upon some governmental function which, because of present day urban frustrations and inadequacies, commands the citizen's attention and excitement. With this in mind, the study explores the past, current, and future developments relevant to water supply in the Denver area.

Davis, Robert K.

*The Range of Choice in Water Management: A Study of Dissolved Oxygen in the Potomac Estuary.* Baltimore: Johns Hopkins Press, 1968.

The author uses a case-study of a particular problem in the Potomac River basin to gain some insight into the following questions:

- (1) How broad an array of alternative courses of action may be technologically possible in a given water quality management problem?
- (2) What analytical problems does the study of alternatives present to water resource planners?
- (3) What institutional or procedural forms of water resource planning may be obstacles that limit the range of alternatives actually considered by planners?
- (4) What kind of responsibility must be exercised by political leaders if planners are to be encouraged to explore the range of choice, and if the information so developed is to be utilized effectively in policy and program formulation?

Georgia. University. School of Law. Institute of Law and Government.

*Water Law and Policy in the Southeast; Papers Prepared for Presentation at the Southeastern Water Law Conference.* Athens: 1962.

Proceedings of a conference designed: to examine some of the major problems relating to the control and use of water in the Southeast; to take a look at some of the solutions that have proven to be successful and to evaluate some of the solutions that have been proposed that look promising.

Gere, Edwin Andrus

*Rivers and Regionalism in New England.* Amherst: Bureau of Governmental Research, University of Massachusetts, 1968.

Examines the principle and practice of regional interstate coopera-

tion and its significance for a strengthened federal system with respect to water resources in the New England region. The study seeks to: (1) identify various federal forces involved in the process of regional interstate cooperation; (2) discern patterns these forces may create; (3) examine various mechanisms of federal influence; and (4) assess their impact.

Grava, Sigurd.

*Urban Planning Aspects of Water Pollution Control*. New York: Columbia University Press, 1969.

Analyzes water pollution control measures and "the problem of waste disposal as it imposes a constraint on the policy choices available to the urban planner."

Hartman, Loyal M. and Don Seastone.

*Water Transfers: Economic Efficiency and Alternative Institutions*. Baltimore: Johns Hopkins Press, 1970.

Examines the legal and institutional mechanisms and the market processes through which water rights are transferred from lower-valued to higher-valued uses, notably from agriculture to industrial or municipal use.

Heath, Milton S., Jr.

*Contemporary Eastern Water Rights Regulation*. Chapel Hill: Institute of Government, University of North Carolina, 1968.

A brief review of the subject of water rights law as a whole, combined with a systematic survey of the recent Eastern states legislation on the subject.

Kindsvater, C.E., ed.

*Organization and Methodology for River Basin Planning; Proceedings of a Seminar Based on U.S. Study Commission – Southeast River Basins*. Atlanta: Water Resources Center, Georgia Institute of Technology, 1964.

Proceedings of a seminar designed to stimulate an exchange of informed opinions regarding the state of the art of comprehensive river basin planning, with specific attention to the recently completed work of the U.S. Study Commission for the Southeast River Basins.

Kelhnofer, Guy J., Jr.

*Metropolitan Planning and River Basin Planning: Some Interrelationships*. Atlanta: Water Resources Center, Georgia Institute of Technology, 1968.

This study is concerned with metropolitan areas, as multijurisdictional urban communities, and with the ability they display to act as communities in deciding how to manage their common water resources. The study concludes with suggestions for improvements in the planning process that is used to guide the development of metropolitan areas and river basins. The proposed improvements are designed to assure metropolitan areas of a role that is more commensurate with the size of the stake they have in the use of the rivers that serve them.

Kneese, Allen V. and Blair T. Bower, ed.

*Managing Water Quality: Economics, Technology, Institutions.* Baltimore: The Johns Hopkins Press, 1968.

A collection of essays designed to shed light on three main issues of water quality management: First, how do we determine the quality of water we want to maintain in our watercourses, both surface and underground? Second, what is the "best" system of management measures for achieving the specified pattern of water quality? Third, what are the best institutional or organizational arrangements for managing water quality?

Krausz, Norman G. P.

*Intergovernmental Relationships in the Administration of Water Resources.* Urbana: Water Resources Center, University of Illinois, 1968.

Objectives of the study were to: study enabling laws relating to water resources administration and establish useful classifications of the legal data to determine relationships in functional areas, procedural roles, jurisdiction and finance; appraise and evaluate governmental organization and relationships in the management of water resources; evaluate the changing relationships due to increased involvement of the federal government in water quality control, flood control, water supply and recreation; assess the large numbers of special districts in Illinois whose boundaries circumscribe only a portion of the water problem area.

The League of Women Voters. Education Fund.

*The Big Water Fight: Trials and Triumphs in Citizen Action on Problems of Supply, Pollution, Floods, and Planning Across the U.S.A.* Brattleboro: The Stephen Greene Press, 1966.

An introduction to the role of the citizen in affecting governmental decisions on all aspects of water policies.

Maass, Arthur, et. al.

*Design of Water-Resource Systems: New Techniques for Relating Economic Objectives, Engineering Analysis, and Governmental Planning.* Cambridge: Harvard University Press, 1962.

Reports the results of a large-scale research program devoted to the methodology of planning or designing complex, multi-unit, multi-purpose water-resource systems. Intended for engineers, economists, and administrators, the book defines the methodology of water resource planning in terms of four related steps: identifying the general objectives of design; translating those objectives into design criteria; deriving plans from the design criteria for the development of optimal water resource systems; and finally evaluating the consequences of the plans.

Martin, Roscoe C., et. al.

*River Basin Administration and the Delaware.* Syracuse: Syracuse University Press, 1960.

Concluding that an overwhelming majority of all existing governments are unequal to the tasks of water-resource administration on any save a limited, local basis, it finds in the river basin an area on which the management of a broad water-related program may appropriately be centered. This study examines river basin administration and the functions of water-resource management, and analyzes their import for the organization of government.

National Association of Counties. Research Foundation.

*Community Action Guidebook for Soil Erosion and Sediment Control.* Washington: 1970.

Sediment caused by careless development and construction has become one of the Nation's most serious sources of water pollution. This guidebook is designed to help local officials to organize, plan, finance, staff, and implement comprehensive sedimentation control programs.

National Association of Counties. Research Foundation.

*Community Action Program for Water Pollution Control.* Washington: 1967.

Ten Community Action Guides prepared for use of locally elected and appointed policy-making officials.

Oregon State University. Water Resources Research Institute.

*Water Law, Politics, and Economics; Seminar.* Corvallis: 1965.

Proceedings of a seminar designed to acquaint the participant with

the complexities of our political, economic, and social structures as they affect water resources planning and development; and to highlight those features that currently act as a deterrent to reaching the most desirable use and control of our water resources.

Pealy, Robert H.

*Comprehensive River Basin Planning: The Arkansas-White-Red Basins Inter-Agency Committee Experience.* Ann Arbor: Institute of Public Administration, University of Michigan, 1959.

The author assumes that major reforms will continue to be unacceptable for an indefinite period and that our basic arrangements for river basin planning and development will, for some time to come, remain much as they are now. Proceeding from that assumption, and on the basis of an evaluation of the accomplishments and failures of the Arkansas-White-Red Basins Inter-Agency Committee, he demonstrates how it will be possible to make limited gains in river basin planning through the use of existing machinery.

Pealy, Robert H.

*Organization for Comprehensive River Basin Planning: The Texas and Southeast Experiences.* Ann Arbor: Institute of Public Administration, University of Michigan, 1964.

It is the author's contention that comprehensive river basin planning and organizations engaged in such planning are integral parts of the political process that determines who gets what. That is, the planning organizations and the plans they produce play a basic role in determining benefits from and who pays for river basin development. The inner workings of the two Commissions are studied from this point of view.

Roberts, Marc J.

"River Basin Authorities: A National Solution to Water Pollution," *Harvard Law Review*, Vol. 83, May 1970: 1527-1556.

Examining various ways of controlling water pollution, the author concludes that: "The answer lies in strategically located Federal river basin authorities . . . With generous Federal funding for treatment of domestic wastes, and fair and efficient service charges for treating industrial effluent, this promises to be the most rapid, flexible, and efficient method for achieving the Nation's water quality goals.

Sheaffer, John R., et. al.

*Metropolitan Water Resource Management as an Emerging Specialized Technical Area; A State-of-the-Art and Literature Review.* Chicago:



Center for Urban Studies, University of Chicago, 1969.

The primary objective of this study is to increase understanding of the rapidly evolving and potentially beneficial metropolitan water resource management strategy.

Smith, Stephen C. and Emery N. Castle, ed.

*Economics and Public Policy in Water Resource Development*. Ames: Iowa State University Press, 1964.

A collection of papers dealing with the problem of economic evaluation of public expenditures for water development. Three basic categories of policy serve as organizing ideas – economic evaluation, financing and organization – and are distributed among five sections: economic evaluation, concepts; economic evaluation, quantification; financial responsibility; economics and water law; and organization.

U.S. Congress. House. Committee on Government Operations.

*View of the Governors on Tax Incentives and Effluent Charges (Water Pollution Control and Abatement)*. Washington: Government Printing Office, 1966.

Summarizes the opinion and comments which the Committee received from the Governors of each State and territory concerning the use, by the States, territories, and the Federal Government, of tax incentives and effluent charges, to accelerate water pollution abatement by industry.

U.S. Congress. Senate. Committee on Public Works. Subcommittee on Air and Water Pollution.

*Operation and Maintenance of Municipal Waste Treatment Plants; Report to the . . . by the Comptroller General of the United States*. Washington: 1969.

A review designed to obtain information regarding (1) the manner in which the Federal Water Pollution Control Administration complies with requirements of the Federal Water Pollution Control Act to obtain and consider applicants' provisions for insuring proper and efficient plant operation and maintenance and (2) the existence, nature, extent, and causes of plant operating and management problems.

U.S. Department of Health, Education and Welfare. Public Health Service. Environmental Health Service. Bureau of Water Hygiene.

*Community Water Supply Study: Analysis of National Survey Findings*. Washington: 1970.

Reports on the findings of a study designed to assess: (A) the status of drinking water quality (B) water supply system facilities and (C) bacteriological surveillance programs in urban and suburban areas in nine regions of the country.

U.S. Department of the Interior. Federal Water Pollution Control Agency.

*The Cost of Clean Water.* Washington: Government Printing Office, 1968. 4 vol.

Vol. I presents initial estimates of the national requirements for and the cost of treating municipal, industrial and other effluent during fiscal years 1969-73 to meet water quality standards established by federal legislation, and comparable levels for intra state and coastal waters. Vol. II contains descriptions and analyses of the various subject areas which form the basis for the cost estimates reported in Vol. I. Vol. III (Industrial Waste Profiles) consists of 10 studies of major water-using industries which describe the costs and effectiveness of alternative methods of reducing industrial wastes. Vol. IV (State and Major River Basin Municipal Tables) includes, for the 50 states and the Water Resources Council river basins, tables showing the breakdown of estimated construction costs, sanitary sewers, and operation and maintenance costs.

U.S. Department of the Interior. Federal Water Pollution Control Administration.

*The Cost of Clean Water and Its Economic Impact.* Washington: Government Printing Office, 1969. 4 vol.

Vol. I updates the 1968 analysis of costs, and concludes that the current and expected short-run rate of investment in municipal waste treatment facilities is inadequate to meet water quality improvement requirements by 1973. Vol. II provides supporting summary data from the 1962 and 1968 Federal Water Pollution Control Administration Municipal Waste Treatment Inventories, and the State water quality standards implementation plans. In addition, the Appendix contains State and industrial comments on the 1968 report. Vol. III, *Sewerage Charges*, addresses itself to methods of financing waste water collection and treatment systems and discusses the considerations pertinent to the selection of a user charge program by local governmental units as a means for raising needed revenues. Vol. IV is an industrial waste profile of the organic chemicals industry.

U.S. Department of the Interior. Federal Water Pollution Control Administration.

*The Cost of Clean Water: Economic Impact on Affected Units of Government.* Washington: Government Printing Office, 1968.

Presents and evaluates the available data dealing with the requirements of state and local governments to achieve the desired water quality standards for beneficial water uses. Relates the requirements for sewage treatment plant construction in perspective to other competing projects confronting the affected units of government; and appraises the major financial and legal problems which will be encountered in implementing the Water Quality Standards.

U.S. Department of the Interior. Federal Water Pollution Control Administration.

*The Economics of Clean Water.* Washington: Government Printing Office, 1970. 3 vol.

The definition of a rate of investment that will close the gap for municipal and industrial waste treatment within a five year period, given the continued pertinence of today's regulatory and technological conditions. Detailed studies of the impact of the inorganic chemicals industry and of concentrated animal populations are submitted as separate sub-reports. The report considers several issues germane to the policy decisions required with the expiration of current municipal grants legislation.

U.S. Department of the Interior. Federal Water Pollution Control Administration.

*State and Interstate Programs for Water Pollution Control; Digest of FY 1969 State Program Plans.* Washington: Government Printing Office, 1969.

Prepared in response to State water quality administrators for the purpose of exchanging pertinent program information among the States.

U.S. Department of the Interior. Federal Water Pollution Control Administration.

*Water Pollution Control, 1969-1973: The Federal Costs; A Report to the Congress.* Washington: Government Printing Office, 1968.

Cost estimates for the Federal Water Pollution Control Administration's efforts in carrying out the provisions of the Federal Water Pollution Control Act.

U.S. Department of the Interior. Office of Water Resources Research.

*Benefits from Integrated Water Management in Urban Areas – The Case of the New York Metropolitan Region.* Springfield: Clearinghouse for

Federal Scientific and Technical Information, 1969.

The NYMR has a water network of over 400 separately managed agencies that exhibit varying connectivities to each other. The aim of this analysis is to appraise the composite performances of the regional system, the subregional systems during the record drought of 1962-1966. Concludes that a major shift away from the present managerial structure toward greater integration appears likely. Although this report focuses on one region, the findings and methodology are applicable to the many multi-source, multi-sink water networks servicing urban regions.

U.S. General Accounting Office.

*Examination into the Effectiveness of the Construction Grant Program for Abating, Controlling and Preventing Water Pollution.* Washington: Government Printing Office, 1969.

This review was directed primarily to an evaluation of the Federal Water Pollution Control Administration's policies, procedures, and practices relative to the planning and implementation of its construction grant program.

U.S. Water Resources Council.

*The Nation's Water Resources; The First National Assessment of the Water Resources Council.* Washington: Government Printing Office, 1968.

An assessment of the water supply-demand outlook of each of the water resources regions of the U.S., designed to keep the Executive Branch, the Congress, and the public informed of current and projected regional and national water and related land resources needs and of current and prospective public action necessary to meet those needs.

"Washington County, Oregon Turns on to Clean Water for Life,"

*The American County*, Vol. 35, No. 8, August 1970: 16-18+.

Describes Washington County Commissioners' successful design and promotion of a county sewerage treatment facility that merged 26 independent sanitary districts and sewer programs of nine cities, plus 18 private sewer systems.

White, Gilbert F.

*Strategies of American Water Management.* Ann Arbor: University of Michigan Press, 1969.

Attempts to determine how water management decisions are made

in order to find more suitable means of manipulating the natural water system.

Wisconsin. University. Water Resources Center.

*Economic Incentives and Water Quality Management Programs*, by Ved Prakash and Robert H. Morgan, Jr. Madison: 1969.

Examines several methods of achieving improved water quality: direct regulatory practices; positive economic incentives such as tax preferences, loans, and grants; effluent charges for quality control purposes as well as a source of financing water quality management programs.

## Noise

American Speech and Hearing Association.

*Noise as a Public Health Hazard*. Washington: 1969.

A series of conference papers that tells about various types of noise and their effects on individuals and the community. Makes proposals for community noise control.

Bailey, Anthony

"Noise Is a Slow Agent of Death," *New York Times Magazine*, November 23, 1969: 46-47+.

Concludes that once the public knows that noise can be controlled, they will expect it to be controlled: by law, by enforcement, by inspectors, by business and by the public.

Baron, Robert Alex

"Noise: The Audible Pollutant," *Nation's Cities*, Vol. 7, No. 9, September 1969: 28-31.

Concludes that once city officials recognize their responsibility to protect the public from excessive noise, they can and must employ the available tools of anti-noise ordinances, zoning codes, planning, and nuisance regulations.

Baron, Robert Alex

*The Tyranny of Noise*. New York: St. Martin's Press, 1970.

Introduction to noise; price of noise; acoustic anarchy, design for quiet.

Berland, Theodore

*The Fight for Quiet*. Englewood Cliffs: Prentice-Hall, 1970.

Summarizes the effects of noise on man's mind and body and the methods of noise control. Includes an extensive bibliography.

Berland, Theodore

*Noise – The Third Pollution.* (Public Affairs Pamphlet No. 449) New York: Public Affairs Committee, Inc., 1970.

A survey of the sources of noise, the effects of noise, and suggested action against noise.

Branch, Melville C. and R. Dale Beland.

*Outdoor Noise and the Metropolitan Environment: Case Study of Los Angeles with Special Reference to Aircraft.* Los Angeles: City Planning Department, 1970.

Makes recommendations for noise standards and governmental actions designed to insure the safety, benefits and amenities resulting from communities free of noise pollution.

Cohen, Alexander

“Industrial and Community Noise Problems and Legal Efforts at Control,” *Journal of Environmental Health*, Vol. 30, No. 5, March-April 1968: 516-524.

Highlights a number of shortcomings in present knowledge and efforts to cope with problems of industrial and community noise. Suggests three approaches for overcoming these deficiencies: research, education and legislation.

Hatfield, Mark

“Compilation of State and Local Ordinances on Noise Control,” *Congressional Record*, Vol. 115, No. 176, October 29, 1969: E9031-E9112. (Daily edition)

Preceded by an analysis of the legal aspects of noise control, this compilation of ordinances was designed to illustrate how concerned individuals and communities can prevent the continuing assault of noise pollution on our society.

Hildebrand, James L.

“Noise Pollution: An Introduction to the Problem and an Outline for Future Legal Research,” *Columbia Law Review*, Vol. 70, No. 4, April 1970: 652-692.

Provides an introduction to the practical problems surrounding noise as an environmental pollutant; discusses the various sources of noise pollution and what can be done to ameliorate their disruptive

influences; and outlines future legal research to meet the needs of planned and rational ecomanagement in the area of noise pollution.

Kramon, James M.

“Noise Control: Traditional Remedies and a Proposal for Federal Action,” *Harvard Journal on Legislation*, Vol. 7, No. 4, May 1970: 533-566.

Considers the efficacy of various legal remedies for noise resulting from ill-considered use of technology.

New York City. Mayor’s Task Force on Noise Control.

*Toward a Quieter City*. New York: 1970.

Highlights the nature of the urban noise problem and suggests an action program.

Still, Henry

*In Quest of Quiet*. Harrisburg: Stackpole Books, 1970.

Urges continued pressure on government and industry to establish national standards for noise control, backed up by continued research and legislation to protect the citizen.

Wilson, Sir Alan

*Noise, Final Report*. London: Her Majesty’s Stationary Office, 1963.

One of the most comprehensive studies of noise pollution. Contents include general effects of noise, the law relating to noise, sources of noise, and a series of recommendations.

U.S. Department of Health, Education and Welfare. Public Health Service. Bureau of Disease Prevention and Environmental Control. National Center for Urban and Industrial Health. Occupational Health Program.

*Industrial Noise: A Guide to Its Evaluation and Control*. Washington: Government Printing Office, 1967.

Designed to instruct engineers and industrial hygienists new to the field of occupational health the basic procedures and techniques of evaluation, recognition, and control of noise in the work situation.

U.S. Federal Council for Science and Technology. Committee on Environmental Quality.

*Noise – Sound Without Value*. Washington: Government Printing Office, 1968.

Reviews the dimensions of the problem of noise in our society and the responsibilities of the Federal agencies concerned with noise abatement.











