TP 450

70-137 EP

THE LIBRARY OF CONGRESS

LEGISLATIVE REFERENCE SERVICE

WASHINGTON, D. C.

ENVIRONMENTAL AFFAIRS IN THE
91ST CONGRESS, 1ST SESSION

ENVIRONMENTAL POLICY DIVISION

March 16, 1970

Foreword

The Environmental Policy Division of the Legislative Reference Service was formed in September 1969 by recombining existing groups of researchers. Recognizing the rapid growth of environmental affairs, the first item of business for the new division was to bring some order to the variety of legislative proposals and related documentation. This report is a preliminary attempt to provide a complete listing of Congressional activities for the 1st Session of the 91st Congress. At the end of the 2d Session, the entire two year period will be reviewed in a single volume.

Because of the immediate usefulness of such a compilation, some sacrifices of form and style have been made so that publication could proceed as rapidly as possible. The authors welcome comments and criticism and especially the calling to our attention of any omissions or errors.

Some delimiting of the term "environment" is necessary. The scope of this report is the natural environment as it interacts with man's activities, rather than the social environment in which person-to-person relationships predominate. Further, only those documents generated by or for the Congress are considered.

Table of Contents

	Page
Foreword	i
Table of Contents	ii
Introduction	iii
The Federal Government and the Environment	1
National Policy for the Environment	14
Environmental Quality Indicators	23
Congressional Organization	31
Reorganization Proposals	38
The Structure of the 91st Congress	41
Financing an Improved Environment	48
International Aspects	62
Activity in Environmental Affairs: 91st Congress, 1st Session	64
Agriculture	64
Air Pollution	71
Alaska	76
Education and Public Information	80
Forestry	84
International Cooperation	88
Marine and Estuaries	90
Mines and Minerals	94
Parks and Recreation	96
Pesticides	103
Population	109
Power and Energy	116
Public Lands	122
Solid Waste Management	123
Water Pollution	127
Water Resource Development	139
Wildlife	146
The Urban Environment	152
Appendix:	
I. Committee Responsibilities for Federal Programs	156

Introduction

On January 1, 1970, President Nixon signed the National Environmental Policy Act of 1969 (P.L. 91-190). The 91st Congress has set the stage to give a high legislative priority to environmental issues in the 1970's. No stranger to environmental problems, the Congress over the past decade has been increasingly concerned about, and more productive of, legislation to reconcile the need for sustained environmental quality values with the demands on man's surroundings that have resulted from his growing numbers and his adoption of ever-higher levels of technology. These two phenomena have marked American progress, especially in this century. More recently, the long term responsibility for renewable and exhaustible resources has motivated changes in the law.

What distinguishes P.L. 91-190 from previous legislation concerning management of the Nation's resources is its recognition of the collective impact of population and economic development, and its declaration of a National policy which balances environmental quality and productivity in a harmonious relationship between man and nature. The Act proclaims it to be the responsibility of the Federal Government to promote the restoration and maintenance of environmental quality by cooperating with, and assisting State and local governments. Implementation of the Act will be through its newly created Council on Environmental Quality, whose duty it is to make recommendations to the President and to assist in the preparation of an annual report to be submitted to the Congress.

The passage of the National Environmental Policy Act culminated

a year of growing awareness of, and impatience with, the quality of the American environment. Early in 1969 the President had appointed a cabinet-level Environmental Quality Council* to advise the Executive on environmental quality matters, including coordination among Federal departments and agencies, cooperation among the various levels of government in related programs, and assessment of the effects of new technologies on the environment. At the same time, the President's order redesignated the former Citizen's Advisory Committee on Recreation and Natural Beauty as the Citizens' Advisory Committee on Environmental Quality to advise both the President and the Council.

The year also saw an acceleration of environmental control measures as States responded to the requirements of the Water Quality Act of 1965 and the Air Quality Act of 1967, and local governments, to specific problems of the environment, such as pesticides control, as well as to improved organization for environmental management. More and more universities planned or established centers and institutes for training scientists, and sponsored seminars on environmental studies. Beginning in 1969, plans were made for an April 22, 1970 "Teach-In" by students and faculties aimed at focusing national attention on environmental problems. By year end, too, several leaders of American industry had committed their firms to an intensified effort to reduce pollution emanating from plants and processes, as well as from their products. The legal profession began

---

* This unit has now been renamed the Cabinet Committee on the Environment to prevent confusion with the statutory-based independent council authorized in P.L. 91-90.

an exploration of the application of the existing body of law to the concept of the individual's right to an improved environment. At the international level, the United Nations planned a Conference on the Human Environment, to be held in Stockholm, Sweden in June 1972.

It was against this heightening interest in restoring natural surroundings that the National Environmental Policy Act was enacted. While on the one hand it represents a significant forward step in emphasizing a national determination to improve and maintain desirable environment, on the other, it restates and reinforces the considerable effort that has characterized Congressional activity in natural resource and related legislation over the previous decade.

Its importance, in creating the independent Council and in setting out a National policy, goes to the heart of the problem of the adequacy of government structure for the management of environmental resources. The fragmentation, both in Congress and in Federal departments and agencies, of responsibility for the various activities and components that are involved in most environmental problems, has been long recognized and publicly acknowledged as a limiting factor in the solution of complex environmental issues.

To this limitation must be added the inherent conflict between efforts to create and maintain an improved environment and the pressure exerted on the resource base by the goal of economic growth. This, plus the certainty of population growth in the future, will continue to compete with the newly-stated goal of a quality environment.

ENVIRONMENTAL AFFAIRS
IN THE NINETY FIRST CONGRESS, FIRST SESSION

The Federal Government and The Environment

Under broadly-interpreted powers vested in the Congress by the commerce and the general welfare clauses of the Constitution, the Federal Government has, throughout most of its history, assumed a larger share of responsibility for development of the Nation's natural resources. The Government's implementation of its land, conservation, forestry, transportation, and water policies; its support of industry though tax incentives, tariff protection, and subsidies; as well as its pursuit of full employment as a national policy; all these activities have had far-reaching effects on the quality of the American landscape.

It is fair to say that most legislation under these Federal powers has been the result of a series of crisis situations facing the Nation from time to time, rather than a unified, predetermined approach to the development of resources. There is a tendency to view the history of resource development, especially as it affected the environment, along a parallel with the record of economic growth. Economic growth may, in turn, be viewed as a compromise between National objectives as seen by two of the country's early leaders.

For Thomas Jefferson, the ultimate values for the nation were contained in his concept of a society based on an essentially pastoral economy. Alexander Hamilton saw the United States one day as a world power, brought to greatness through a growing population and a vigorous and expanding industrial system. In spite of the realization of the Hamiltonian objective, this

conflict in views of National objectives has been an enduring one. Writing on "economic growth and national security" in 1961, Colm and Geiger observed of these views:

> However passionately the realization of these complementary and conflicting ideals was sought, their embodiment in social institutions has not been rigid and doctrinaire, but flexible and practical. Throughout the nation's history, there have been waves of reform, but in all of them, there has been a working compromise between Jeffersonian and Hamiltonian objectives, which reflected the possibilities and limitations of the time...
>
> Today, the continuing task of achieving Jeffersonian independence and self-responsibility with Hamiltonian wealth and power involves different social responsibilities and limitations. It has become necessary to reconcile the large concentrations of economic and political power, public and private, required for economic growth and national security with the predominance of private, decentralized decision making and action that are needed in order to preserve freedom and individuality.1/

While Colm and Geiger emphasized economic growth and national security as national objectives to be reconciled with the preservation of freedom and individuality, their thesis applies with equal force to the future conflicts between our conventional use of resources, and the newly-stated objective of a quality environment "which will encourage productive and enjoyable harmony between man and his environment."

1/Colm, Gerhard and Theodore Geiger. The economy of the American people; progress - problems - prospects. Washington, D.C., The National Planning Association, October 1961, pp 4-5.

One of the results of the selective (and ad hoc) approach by Government to resource problems has been a proliferation of separate, yet interrelated programs, responsibility for the management of which has been lodged in Departments and agencies throughout the Federal Government. This cumulative process has resulted in sometimes awe-inspiring confusion and, in some cases, durable and wasteful conflicts within the Federal Government.

The problem was identified in 1955 by the Commission on Intergovernmental Relations (the "Kestnbaum Commission"), appointed by President Eisenhower to sort out Federal-State relationships. Citing the lack of effective machinery to coordinate river-basin development agencies, the Commission found that:

> ...confusion in intergovernmental relations, particularly with respect to water and land use, development and control, has been generally characteristic in some areas. This confusion is accentuated by duplication in administration at both the State and National level, especially in public land policy, the control and use of water, and multiple-purpose and river basin development. Neither level can offer anything that would pass for a unified policy.1/

To remedy this defect, the Commission recommended establishment

> ...by the Congress of a permanent Board of Coordination and Review to advise the President and the Congress on a coordinated natural resources policy within the National Government and between it and the States.2/

1/84th Congress, 1st session. House. The Commission on Intergovernmental Relations; Final Report. Message from the President. Washington, June 25, 1955, pp. 237-241. (Document No. 198).

2/Ibid.

A long-time student of the problem, Dr. Gilbert F. White, wrote in 1958:

> What was recognized as a general need in 1908--to provide integrated management of resources over entire units of area--appears to be among the urgently felt needs in 1958. This may be illustrated with one resource field that has been trampled by more earnest survey parties than any other--the nation's water resources. The administration of water resources now involves division of authority among eight major and numerous minor federal agencies. Many of these are single purpose; others are in conflict over multi-purpose programs. Each state has several agencies in the field; few have unified administration; only a half dozen at most have genuinely strong organizations capable of planning and carrying out sizable works. Given the widely accepted ideal of integrated development of multiple-purpose projects for entire basins for the public good, the present arrangement seems unduly wasteful and ineffective. Five public commissions in nine years have looked into aspects of the situation and have prescribed remedies. 1/

President Kennedy's February 23, 1961 message to the Congress on natural resources cited the problem:

> In the past, these policies have overlapped and often conflicted. Funds were wasted on competing efforts. Widely differing standards were applied to measure the Federal contribution to similar projects. Funds and attention devoted to annual appropriations or immediate pressures diverted agencies away from long-range planning for natural economic growth. Fees and user charges wholly inconsistent with each other, with value received, and with public policy have been imposed at some Federal developements. 2/

Writing in the same year, one observer, noting a "complex, confusing and conflicting array of agencies, offices, and departments" administering

---

1/White, Gilbert F. Broader bases of choice; The next key move. In: Perspectives on conservation. Henry Jarrett (ed.). Baltimore, The Johns Hopkins Press. 1958. pp. 206-207.

2/Natural Resources. Message from the President of the United States. (H. Doc. 94). 87th Congress. First Session. House.

public policy on natural resources, cited inflexibilities in law, agency tradition, and "artificially generated political support" which resulted in irrevocable decisions respecting the management of resources:

> Rarely, if ever, are these decisions based on informed judgment about over-all national needs and goals.1/

Eight years after White's comment, a report by the Legislative Reference Service on Federal water resource agencies found responsibilities divided among 27 agencies in 8 departments and 8 independent agencies of the Federal government. Three additional agencies with similar or related responsibilities were operating within the Executive Office of the President, "for a grand total of 38 agencies which have specific responsibility on some aspect of Federal water resource activities".2/

By the end of 1969, additional, as well as new responsibilities for one or another aspect of water resources had increased this scattering of the management function to a total of more than 50 agencies within the Federal Government.

1/Mister Z. The Case for a Department of Natural Resources. Natural Resources Journal, Vol. I, No. 2, Nov. 1961. pp. 197-198.

2/Legislative Reference Service, Library of Congress. Federal water resource agencies and commissions, by Theodore M. Schad and Elizabeth Boswell. In: 89th Cong., 2d sess. Senate. Creative federalism. Hearings before the Subcommittee on Intergovernmental Relations. Part 1. Washington, 1966. p. 299.

The lack of a definition of environmental management which encompasses in a comprehensive manner all of the aspects of the human and natural resources comprising our surroundings is demonstrated by the proliferous nature of the management function at the Federal level of government. A recent report by the Legislative Reference Service, attempting to determine where in the Federal structure was to be found the responsibility for 19 selected factors involved in managing the environment, identified 58 offices and bureaus in 9 departments; 7 organizations in the Executive Office of the President; 8 independent agencies; 14 selected boards, committees and commissions; and 4 quasi-official organizations.[1/] Using other criteria, Daniel Dreyfus reported in January 1970:

> In all, 63 Federal agencies included within 10 of the 13 executive departments as well as 16 of the independent agencies were found to have programs within the scope of environmental management.[2/]

Attempts to coordinate resource management activities within the Federal government structure have been legion--and in large measure, ineffectual. Two general approaches--coordination or consolidation of functional programs--constitute most attempts or suggestions to rationalize management of resource programs.

1/See LRS Multilith 70-30 EP, February 1, 1970.

2/91st Cong., 2d sess. Senate. A definition of the scope of environmental management. Prepared by Daniel A. Dreyfus at the request of the Chairman, Committee on Interior and Insular Affairs. Washington, 1970, p. 15. (Committee Print).

The usual coordinative mechanism has been the interdepartmental or interagency committee, a form of "treaty" by which departmental representatives have attempted to rationalize conflicting goals, standards, and administrative methods. That this method falls short of the ideal was illustrated by Senator Edmund Muskie, during hearings in 1966 relating to the administration of Federal grant programs. The Senator stated, with reference to coordination of Federal programs through the interagency committee route:

> Interagency committees and councils are formed, but there are few meetings, generally attended by subordinates. Interagency agreements or treaties are made, but the ones we have been looking at are more directed to keeping one agency out of another's function than to putting the functions together in an effective package.
>
> Responsibility for intradepartmental or interdepartmental coordination and intergovernmental contracts has been delegated down the line to subsordinate policy officials.
>
> At the higher level, Cabinet officers are being given "convenor" powers to convene meetings with other Cabinet officials of equal if not greater rank, to develop coordinating policies. But there is no working secretariat either to develop the agenda or to monitor the implementation and effectiveness of the policy, if any policy comes out of such meeting.1/

1/Statement of Senator Edmund S. Muskie. In: Creative Federalism, op. cit., p. 265. (Nov. 18, 1966).

One difficulty facing the interdepartmental coordination of environmental programs is identified in a 1968 report of the House Subcommittee on Science, Research and Development, which found that:

> The primary missions of agencies are not environmental quality and any insistence that these values must be emphasized must be weighed against tight budgets and timetables for their statutory responsibilities. Recent reorganizations have actually increased the fragmentation of environmental responsibility in order to accomplish other purposes.1/

Commenting on the creation by President Nixon of the interdepartmental Council on Environmental Quality as a device for overcoming deficiencies in coordination at the Federal level, a recent study by the National Academy of Sciences stated:

> While the creation of the Council clearly indicates high-level concern within the Administration for the environment, its long-term effectiveness can be questioned. The Council is composed of high-level officials with a multitude of other responsibilities. The President's Council, chaired by the President and including all the Departmental Secretaries, was designed to deal expeditiously with the most major environmental problems. The difficulty is that the President, with his multitude of responsibilities, is unlikely to have sufficient time for the kind of continuing effort that is clearly required. Further, the designated Cabinet officers have differing degrees of responsibility as well as different sets of interests, sometimes conflicting, relating to the environment.

1/Managing the environment. Report of the Subcommittee on Science, Research, and Development, to the Committee on Science and Astronautics, U.S. House of Representatives. Washington 1968, p. 30. Serial S. (Committee Print).

> In brief, the Environmental Quality Council, even with limited staff and budget, can perform a valuable function in keeping the major decision-makers of government aware of environmental issues. But, we believe that a council of highest-level government officials supported by a part-time staff is an inadequate response to the problem of developing mechanisms for effective environmental management.1/

Consolidation of natural resource management functions within a single agency has been pursued as a remedy for administrative confusion at various times over the past several decades. Recommended by prestigious ad hoc bodies appointed to study efficiency in the Federal Government, it nevertheless has not been remarkably successful in practice. While in some instances, actual reorganization of the management function has been achieved, attempts to transfer administrative responsibility for a resource program have met in some cases with a disinterest bordering on hostility on the part of the threatened agency; in others, with a spectacular demonstration of bureaucratic in-fighting, and the durability of tradition, however remote its origins.

Even so, some re-ordering of the management of land, water and forest resources can be found in the administrative histories of Federal Agencies. A case in point is that of Federal land management, some aspects of which have been, at one time or another, lodged under the Navy Department, the General Land Office of the Treasury Department, the

---

1/National Academy of Sciences/National Academy of Engineering. Institutions for effective management of the environment. Part 1 - Report of the Environmental Study Group to the Environmental Studies Board. Washington, D. C., January 1970, pp. 50--51.

Department of the Interior, the Department of Agriculture, and the Army. However, the history of functional consolidation more often has been characterized by such contests as developed between the Departments of Agriculture and Interior regarding responsibility for management of the U.S. forest lands, generating the controversy involving Gifford Pinchot at the turn of the century, and between Secretaries Ickes and Wallace, during the Franklin D. Roosevelt administration.

The Commission on Organization of the Executive Branch of the Government (the "First Hoover Commission") in 1949 cited the "long and wasteful conflict" between the Departments of Agriculture and Interior that characterized the management of soil conservation, range, forest and allied services, and some members of the Commission urged consolidation of most natural resource functions into a new Department of Natural Resources.1/ Although such conflicts have not recurred in recent years along the epic dimensions of those mentioned, the problems associated with fragmented responsibility for natural resource management persist, and the effort to consolidate the management function appears to have lessened considerably. Moreover, there appears to be recognition of the practical difficulties of such consolidation. Speaking of this difficulty, with particular reference to management of water resources, Secretary of the Interior Udall said, in 1966:

1/Reorganization of the Department of the Interior. A report to the Congress by the Commission on Organization of the Executive Branch of the Government, March 1949, pp. 53-80.

> One thing I have learned is that water is such a vital resource with so many facets to it that there is no way I know of to get all the responsibilities concerning water in a single department ... it just is not possible ... water is one of the most all-pervasive things in life; I do not think there is any simple reorganization route.1/

While an appreciation of the practical difficulties of reorganization may have attenuated serious attempts at a major reorganization of Federal responsibilities along the lines previously proposed, the recognition that some reorganization of Federal agencies' responsibilities for managing one or another aspect of the environment has been expressed recently. The report Institutions for Effective Management of the Environment, by the National Academy of Sciences, in recommending establishment of a Board of Environmental Affairs in the Office of the President to assist him in formulating policy, states:2/

> We do not in this paper advocate a major reorganization of government to deal with environmental matters but only point out its importance and recommend that management studies be carried out so as to provide for a realigning of agency responsibilities. With the great variety of agencies and functions it is necessary in the interim and perhaps even on the longer term to have a strong and inventive agency at the President's level.3/

1/Statement of Secretary of the Interior Udall. Creative federalism. Op.cit., p. 338.

2/Institutions for effective management of the environment. Op. cit., p. 54.

3/The "Board" is understood to be similar to the "Council" established by P.L. 91-190.

President Nixon's Message on Environment to the Congress on February 10, 1970, puts heavier emphasis on reorganization, and promises renewal of the effort toward major reorganization:

> To meet future needs, many organizational changes will still be needed. Federal institutions for dealing with the environment and natural resources have developed piecemeal over the years in response to specific needs, not all of which were originally perceived in the light of the concerns we recognize today. Many of the missions appear to overlap, and even conflict. Last year I asked the President's Advisory Council on Executive Organization, headed by Mr. Roy Ash, to make an especially thorough study of the organization of Federal environmental, natural resources, and oceanographic programs, and to report its recommendations to me by April 15. After receiving their report, I shall recommend needed reforms, which will involve major reassignments of responsibilities among Departments.1/

At the close of the 1st session of the 91st Congress, the superstructure for environmental affairs in the Executive Office of the President included the following units.

1. Cabinet Committee on Environment (Exec. Order No. 11472)
2. Citizen's Advisory Committee on Environmental Quality (Exec. Order No. 11472)
3. Council on Environmental Quality (P.L. 91-190)
4. Office of Science and Technology
5. Federal Council for Science and Technology Committee on Environmental Quality

Title II of S. 7, the Senate version of the Water Quality Improvement Act of 1969, called for the establishment of an Office of Environmental Quality to assist the statutory Council. The bill was in conference

---

1/U.S. President, Message on Environment, House Document No. 91-225, 91st Cong., 2d Sess.

with a differing House version, H.R. 4148. Numerous bills were introduced in the first session to recombine departments and agencies into a new Department of the Environment or an independent agency.

National Policy for The Environment

The recognition that a reordering of environmental management would require a comprehensive approach moved the Congress in 1969 to declare a policy defining the National government's role in promoting the optimum balance between resources and needs. The statement of policy contained in Section 101 of the National Environmental Policy Act of 1969 (P.L. 91-190) declares "the continuing policy of the Federal Government" to cooperate with State and local governments "to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."

That the realization of such a view of the world involves rationalization of essentially disparate goals, goes without saying. Neither does such a statement presuppose the existence of a body of knowledge sufficient to specify what are the "social, economic and other requirements of present and future generations," nor clarify with any exactness just what is meant by a "quality environment", which is the aim of the policy. Moreover, attaining the elements of this optimum situation undoubtedly will involve a number of tradeoffs among the various factors that go into making up a "quality" environment.

Perhaps the real significance of this statement of policy is that the goals it sets out to secure are beyond reproach to most Americans, especially those who have become aware of the increasing degradation of

of the natural surroundings. This, plus its value in terms of an expression of determination to move the Nation in a comprehensive manner toward achieving those goals, is perhaps more important than any shortcomings that might be cited respecting definitions and full knowledge of all of the various factors involved.

According to Section 101 of the 1969 Act, the Federal Government assumes the responsibility for improving and coordinating Federal activities "to the end that the Nation may--"

> (1) fulfill the responsibilities of each generation as trustees of the environment for succeeding generations;
>
> (2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;
>
> (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
>
> (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
>
> (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
>
> (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The search for a statement of environmental policy has been actively pursued by the Congress in recent years. In June 1968, a

subcommittee of the House Committee on Science and Astronautics, investigating the environment and public policy, concluded that an overall policy on the environment was needed, "on the simple basis that it is the best way to run the world."[1/] The elements of an environmental policy recommended by the subcommittee included:

a. Use of the environment for the benefit of all mankind;

b. Maximized productivity of the environment consistent with continued usage into the very long-term future;

c. Systematic management of applied science and technology to achieve best usage;

d. Incentives to industry, land developers and local governments;

e. International agreements on projects which have widespread or long-term effects;

f. Anticipatory assessment of new and extended applications of science;

g. Avoidance of speculative statements and emotional appeals in public relations; and

h. An increased education and information program for the public in ecological principles.

In July 1968, Senator Henry M. Jackson's introduction to a special report to the Senate Committee on Interior and Insular Affairs noted that "the goal of managing the environment for the benefit of all citizens has

---

1/90th Cong., 2d sess. Managing the environment. Report of the Subcommittee on Science Research and Development, to the Committee on Science and Astronautics. House of Representatives. Serial J. June 17, 1968. (Committee Print).

often been overshadowed and obscured by the pursuit of narrower and more immediate economic goals."[1] The report proposed breaking "the shackles of incremental policymaking in the management of the environment." Senator Jackson's introduction also noted that:

> ...it needs to be recognized that the declaration of a national environmental policy will not alone necessarily better or enhance the total man-environmental relationship. The present problem is not simply the lack of a policy. It also involves the need to rationalize and coordinate existing policies and to provide a means by which they may be continuously reviewed to determine whether they meet the national goal of a quality life in a quality environment for all Americans.[2]

Included in the report was a draft resolution on a national policy for the environment containing goals toward which appropriate legislation and administrative arrangements might be directed:

> (1) To arrest the deterioration of the environment.
>
> (2) To restore and revitalize damaged areas of our Nation so that they may once again be productive of economic wealth and spiritual satisfaction.
>
> (3) To find alternatives and procedures which will minimize and prevent future hazards in the use of environment shaping technologies, old and new.
>
> (4) To provide direction and, if necessary, new institutions and new technologies designed to optimize man-environment relationships and to minimize future costs in the management of the environment.[3]

In October 1968, a "Congressional White Paper on a National Policy for the Environment", published under the auspices of the Committee

---

1/90th Cong., 2d. sess. Senate. A national policy for the environment... A special report to the Committee on Interior and Insular Affairs. Washington, July 11, 1968, p. iii. (Committee Print).

2/Ibid. p. iii-iv.

3/Ibid. p. 35.

on Interior and Insular Affairs of the Senate and the Committee on Science and Astronautics of the House of Representatives suggested elements of a National policy which included:

> Environmental quality and productivity shall be considered in a worldwide context, extending in time for the present to the long-term future.
>
> Purposeful, intelligent management to recognize and accommodate the conflicting uses of the environment shall be a national responsibility.
>
> Information required for systematic management shall be provided in a complete and timely manner.
>
> Education shall develop a basis of individual citizen understanding and appreciation of environmental relationships and participation in decision-making on these issues.
>
> Science and technology shall provide management with increased options and capabilities for enhanced productivity and constructive use of the environment. 1/

The White Paper's letter of submission, noting that it was intended to continue and broaden discussion of a National policy on the environment, stated that:

1/90th Cong., 2d sess. Congressional White Paper on A National Policy for the Environment. Submitted to the U.S. Congress under the auspices of the Committee on Interior and Insular Affairs, U.S. Senate, and the Committee on Science and Astronautics, U.S. House of Representatives. Serial T. October 1968. (Committee Print).

> The Congress is the only institution having the scope to deal with the broad range of man's interactions with his physical-biological surroundings. We therefore believe that leadership toward a national environmental policy is our responsibility. 1/

A discussion of the White Paper's elements of a national policy bear repeating:

> The requirement to maintain and enhance long-term productivity and quality of the environment takes precedence over local, short-term usage. This policy recognizes the responsibility to future generations of those presently controlling the development of natural resources and the modification of the living landscape. Although the influence of the U.S. policy will be limited outside of its own borders, the global character of ecological relationships must be the guide for domestic activities. Ecological considerations should be infused into all international relations.
>
> World population and food production must be brought into a controlled balance consistent with a long-term future continuation of a satisfactory standard of living for all.
>
> Energy must be allocated equitably between production and the restoration, maintenance, and enhancement of the environment. Research should focus on solar energy and fusion energy for the long term, and on energy conversion processes with minimum environmental degradation for the short term.
>
> In meeting the objectives of environmental management, it will be necessary to seek the constructive compromise, and resolutely preserve future options.

1/Ibid. p. iii.

Priorities and choices among alternatives in environmental manipulation must therefore be planned and managed at the highest level of our political system. All levels of government must require developments within their purview to be in harmony with environmental quality objectives.

Alteration and use of the environment must be planned and controlled rather than left to arbitrary decision. Alternatives must be actively generated and widely discussed. Technological development, introduction of new factors affecting the environment, and modifications of the landscape must be planned to maintain the diversity of plants and animals. Furthermore, such activities should proceed only after an ecological analysis and projection of probable effects. Irreversible or difficultly reversible changes should be accepted only after the most thorough study.

The system of free enterprise democracy must integrate long-term public interests with private economic prosperity. A full range of incentives, inducements, and regulations must be used to link the public interest to the marketplace in an equitable and effective manner.

Manufacturing, processing, and use of natural resources must approach the goal of total recycle to minimize waste control and to sustain materials availability. Renewable resources of air and water must be maintained and enhanced in quality for continued use.

A broad base of technologic, economic, and ecologic information will be necessary. The benefits of preventing quality and productivity deterioration of the environment are not always measurable in the marketplace. Ways must be found to add to cost-benefit analyses nonquantifiable, subjective values for environmental amenities (which cannot be measured in conventional economic terms).

Wherever the maintenance of environmental productivity or the prevention of environmental deterioration cannot be made economical for the private sector, government must find appropriate means of costsharing.

Ecological knowledge (data and theories) must be greatly expanded and organized for use in management decisions. Criteria must be established which relate cause and effect in conditions of the environment.

Indicators for all aspects of environmental productivity and quality must be developed and continuously measured to provide a feedback to management. In particular, the environmental amenities (recreational, esthetic, psychic) must be evaluated. Social sciences must be supported to provide relevant and dependable interpretation of information for environmental management.

Standards of quality must not be absolute--rather, they should be chosen after balancing all criteria against the total demands of society. Standards will vary with locality, must be adjusted from time to time, and we must develop our capabilities accordingly.

Decisions to make new technological applications must include consideration of unintended, unanticipated, and unwanted consequences. Technology should be directed to ameliorating these effects so that the benefits of applied science are retained.

Public awareness of environmental quality relationships to human welfare must be increased. Education at all levels should include an appreciation of mankind's harmony with the environment. A literacy as to environmental matters must be built up in the public mind. The ultimate responsibility for improved maintenance and control of the environment rests with the individual citizen. 1/

The National Environmental Policy Act of 1969 establishes a three-member Council of Environmental Quality within the President's

---

1/Ibid. pp. 9-10.

Office to provide a source of expert review of national policies, environmental problems and trends, and a central coordinating mechanism to resolve internal policy conflicts and disputes between different executive agencies of the government.1/

Detailed responsibilities of the Council, as outlined by the President on January 29, 1970, will be:

1. To study the condition of the Nation's environment: This responsibility parallels that which the Council of Economic Advisers has helped the President's office to understand and interpret the complex forces which govern the U.S. economy. The Environmental Quality Council, drawing on the research facilities of industry, the universities, and the Government, is designed to serve a similar function in the environmental field.

2. To develop new environmental programs and policies: The new Council will monitor the effectiveness of existing environmental programs and recommend modifications and new approaches as they prove necessary. It will also look into new problems for which little government policy now exists--matters such as noise pollution, the growth of debris and solid wastes, and other unanticipated byproducts of advancing technology.

1/See LRS Multilith 70-24 EP, January 28, 1970.

3. To coordinate the wide array of Federal environmental programs: Literally scores of Federal programs--scattered among many executive departments--touch on environmental concerns. The new Council will encourage harmony among these programs and will also recommend appropriate organizational changes.

4. To see that all the activities of the Federal Government take environmental considerations into account: Numerous Government activities--large construction projects, for example--can have important environmental effects. The Council will review all such activities and will issue guidelines to ensure that they will be conducted in a way which does not degrade, but instead enhances, the environment.

5. To assist the President in preparing an annual Environmental Quality Report: This report, which will assess current and future environmental problems and ways in which they can be solved, will be used both to stimulate public understanding and to guide Government decision-making. The first such report is due for transmittal to the Congress on July 1, 1970.

Cooperating with the Council will be a Cabinet Committee on the Environment, consisting of the President, Vice President and Secretaries of the principal agencies involved, and a 15-member Citizens' Advisory Committee on Environmental Quality.

Environmental Quality Indicators

The advent of a variety of extensive Government programs relating to the environment raises the question for the Congress of how to measure the progress and efficiency of agency performance. While the intent of the Congress is set out in legislation, oversight requires continual examination of the status of the environment, and criteria are needed to perform this function. At the outset, environmental issues are recognized as conflicts between those programs relating to productivity and employment required for a high standard of living and the amenities (recreation, natural beauty, etc.) associated with the concept of a high quality of living.

Such a measurement requirement has been recognized for a broad group of Federal programs in welfare, education, crime and public safety. "Toward a Social Report," issued in January 1969 by the Department of Health, Education and Welfare, states:

> The nation has no comprehensive set of statistics reflecting social progress or retrogression. There is no government procedure for periodic stock taking of the social health of the nation. The Government makes no Social Report.
>
> We do have an Economic Report, required by statute, in which the President and his Council of Economic Advisors report to the nation on its economic health. We also have a comprehensive set of economic indicators widely thought to be sensitive and reliable. Statistics on national income and its component parts, on employment and unemployment, on retail and wholesale prices, and on the balance of payments are collected annually, quarterly,

monthly, sometimes even weekly. These economic indicators are watched by government officials and private citizens alike as closely as a surgeon watches a fever chart for indications of a change in the patient's condition.

Although nations got along without economic indicators for centuries, it is hard to imagine doing without them now. It is hard to imagine governments and businesses operating without answers to questions which seem as ordinary as: what is happening to retail prices, is national income rising, is unemployment higher in Chicago than in Detroit, is our balance of payments improving? 1/

...

A chapter on criteria for the environment is summarized as follows:

The chapter deals with two aspects of our physical environment: pollution of the natural environment and an important element of the man-made environment, the quality of housing.

Pollution seems to be many problems in many places--air pollution in some communities, water pollution in others, automobile junk yeards and other solid wastes in still other places. Tying these seemingly disparate problems together is a basic principle of pollution and waste disposal.

The total weight of material taken into the economy from nature must equal the total weight of materials discharged as wastes plus any addition to inventories. This means that, given the level and composition of the resources used by the economy, the degree of recycling, and the level of inventories, any reduction in one form of waste

---

1/U.S. Department of Health, Education and Welfare. Toward a Social Report. Washington, D.C., January 1969.

discharge must be accompanied by an increase in the discharge of some other kind of waste. For example, some air pollution can be prevented by washing out the particles--but this can mean water pollution, or alternatively solid wastes.

Since the economy does not destroy the matter it absorbs there will be a tendency for the pollution problem to increase with the growth of population and economic activity. In 1965 the transportation system in the United States produced 76 million tons of five major pollutants. If the transportation technology used does not greatly change, the problem of air pollution may be expected to rise with the growth in the number of automobiles, airplanes, and so on. Similarly, the industrial sector of the economy has been growing at about 4-1/2 percent per year. This suggests that, if this rate of growth were to continue, industrial production will have increased twelve-fold by the year 2020, and that in the absence of new methods and policies, industrial wastes will have risen by a like proportion.

The chapter presents some measures of air and water pollution indicating that unsatisfactorily high levels of pollution exist in many places. There can be little doubt that pollution is a significant problem already, and that this is an area in which, at least in the absence of timely reporting and intelligent policy, the condition of society can all too easily deteriorate.

As we shift perspective from the natural environment to the housing that shelters us from it, we see a more encouraging trend. The physical quality of the housing in the country is improving steadily, in city center and suburb alike. In 1960, 84 percent of the dwelling units in the country were described as "structurally sound," in 1966, this percentage had risen to 90 percent. In center cities the percentage had risen from 80 percent in 1960 to 93 percent in 1966. In 1960, 12 percent of the nation's housing supply was "overcrowded," by the standard of 1.01 or more persons per room. In 1950, 16 percent of the nation's housing had been overcrowded by the same standard.

> The principal reason for this improvement was the increased per capita income and demand for housing. About 11-1/2 million new housing units were started in the United States between 1960 and 1967, and the figures on the declining proportions of structurally unsound and overcrowded dwellings, even in central cities, (as well as other factors) suggest that this new construction increased the supply of housing available to people at all income levels.
>
> Even though the housing stock is improving, racial segregation and other barriers keep many Americans from moving into the housing that is being built or vacated, and deny them a share in the benefits of the nation's improving housing supply. 1/

The Environmental Studies Board (a joint function of the National Academy of Sciences and the National Academy of Engineering) sponsored a summer study in 1969 which led to the report Institutions for Effective Management of the Environment. An environmental quality index was proposed by the Board:

> The management of the economic affairs of the nation has been aided by a variety of indices that provide some measure of the nation's economic health. Rates of employment are one such index, as are the measure and rates of growth of the gross national product. In developing the total federal program and determining how much the administration is willing to spend and the Congress is willing to appropriate, these indices could have a crucial effect on the judgments upon which federal policies and programs are based.
>
> The environment and our relationship to it involve values that are either difficult or impossible to measure in economic terms. Alternate

---

1/Ibid. pp. 12-14.

means of defining these values are required. One approach is to define certain environmental indices that can serve as quantitative measures of what is happening at regional and national levels. We strongly recommend the development of such indices. The following are examples.

1. Transparency of the air
2. Purity of water
3. The ratio of area of open ground to population
4. Noise level
5. Ratio of wild animals to human population
6. Ratio of area of parks to area of parking lots
7. Fraction of utility wires above ground

Measurement of these aspects of the environment would be useful for the purposes of government. A federal or state government might set a goal--for example, that the transparency of the air in a region could not fall below a certain level or over a period of time should be restored to a higher level. A program could then be planned to achieve this goal by appropriate organization, funding, incentives, policing, and publicizing.

The various individual indices could be combined and weighted into an overall Environmental Quality Index, which could become a powerful tool in developing priorities among programs affecting the environment. A familiar index would exist against which changes in the environment could be compared. The composition and weighting of this index or of the component measures will require careful analysis which we do not even attempt to outline. We do emphasize that the program of monitoring must be designed from the beginning to yield appropriate indices. 1/

1/National Academy of Sciences/National Academy of Engineering. Institutions for Effective Management of the Environment. Report of the Environmental Study Groups to the Environmental Studies Board. Pt. 1. Washington, D.C., January 1970, pp. 39-40.

In hearings before a subcommittee of the House Government Operations Committee, Dr. Kenneth Watt told of a model for the State of California which attempted to rate various aspects of environmental quality:

> I am the head of a team of systems ecologists studying the feasibility of building a mathematical model of California as a model of the human ecosystem under a grant from the Ford Foundation. The object of this work is to discover all the social costs of increasing human population densities. We use computers to analyze data and conduct simulation studies. Either through assembling data for the computer, or examination of the output from the simulation studies, I discover some new fact or process that startles me about once a week.
>
> It is not possible to give this subcommittee a full report on this project because of the great volume of our findings, and their highly technical nature. However, I have selected a few sample phenomena for explanation because they illustrate the great variety of deleterious processes now at work in America because of increasing population size, and also indicate that the time of crises is closer than generally recognized. In each case I will try to give as few numbers as possible, but emphasize the nature of the processes at work.
>
> One of the most frightening processes at work in America is the increased intensity of competition for resources of all kinds. Competition for land brings out the essential features of this phenomenon. A good measure of the agricultural self-sufficiency of a society is the ratio:
>
> $$\frac{\text{acres of first and second class agricultural land still available for farming}}{\text{population size}}$$
>
> The agricultural specialists know that this ratio must be between about .25 and 1.00 in order to keep a population of an average weight of 154 pounds

alive and healthy. The figures .25 and 1.00 are the numbers of acres required to grow enough cereal grain and enough beef, respectively, to support one such person each year. The figures are only intended as rough averages: there is considerable variation due to soil type, climate, plant or animal strain, etc. If the ratio is too low for a particular society, it must either take to intensive harvesting of the sea, as Japan has done, or irrigate deserts, as in the U.S. Southwest. However, there are capital costs associated with these alternatives, and their profitability is limited by available water, in the case of deserts, and the abundance of the fish stocks, in the case of the sea.

At the moment in California, the critical ratio is about .34, so for the moment, California is safe. However, about .2 of an acre of land is removed from other uses for urbanization for each human added into the U.S. population. In California, as in many other parts of the U.S., this acre for each five new people happens to be almost invariably removed from prime farmland, because that is what surrounds the cities. Also, in California, as in many other parts of the Nation, only a small percentage of the total land area is prime farmland: 6.7 percent. Thus, by the year 2000, the critical ratio will have dropped from .34 to .14 and California will be experiencing real shortages of certain kinds of foods, unless substitutes can be found. This is under the assumption of a 1.5 percent per annum population increase for the next 31 years. 1/

The development of a concept of environmental quality indicators might be proved at several interrelated levels. First, it is feasible and straightforward to measure physical-chemical parameters such as

---

1/91st Cong., 1st sess. House. Effects of Population Growth on Natural Resources and the Environment. Hearings before a Subcommittee of the Committee on Government Operations. Washington, September 15-16, 1969. p. 34.

temperature, acidity, salinity, carbon dioxide content of the air, and meteorological information. Most man-made changes in the environment are represented through these measurable entities. Next, it is of interest to measure biological parameters such as the population of various organisms, the diversity of species, and the relationships existing among them in the food chains and energy cycles. Correlation of biological data with physical-chemical measurements can lead to the identification of certain indicator organisms as well as sensitive ecological systems which could be monitored.

Gross social, economic, and geographic factors can be measured, i.e., agricultural productivity, open space, and recreation usage. Again, a correlation between these factors and the more precise scientific parameters appears possible. Finally, there are subjective values which are perhaps most important to overall judgments on the conditions of, and changes in, the environment. These might include visibility distance, design of highways, ease of mobility, and natural beauty.

Congressional participation in management of the environment involves choices between often-conflicting and alternative uses of air, water and the landscape, as well as choices among alternatives of ecological manipulation. In many cases, decisions are confounded by what amounts to a "comparison of non-commensurables." However, diligent work in developing environmental quality indicators can be expected to aid significantly in the legislative, as well as the management process.

Congressional Organization

The organizational pattern of environmental management existing in the Executive agencies of the Government is, in a sense, paralleled by the Committee structure of the Congress. The report of the Environmental Study Board of the National Academy of Sciences--National Academy of Engineering notes:

> Not all the major environmental entities within the federal Executive Branch report to the same committees of the Congress. For example, most of the Department of the Interior agencies dealing with parks, wildlife, and water--Bureau of Sport Fisheries and Wildlife, National Park Service, Bureau of Commercial Fisheries, Bureau of Outdoor Recreation, Bureau of Reclamation--report to the Committee on Interior and Insular Affairs. The Federal Water Pollution Control Administration, however, reports to Public Works, which also considers solid-waste disposal and air pollution activities of the Department of Health, Education and Welfare. The same pattern is not repeated in the House, however--FWPCA does report to Public Works, but this Committee does not also consider solid-waste or air-pollution problems. Most fisheries questions are considered by the Merchant Marine and Fisheries Committee. The Army Corps of Engineers of the Department of Defense, a major water-project constructor, also report to Public Works in both Houses of Congress. Appropriation Committee subcommittee organization in each House of the Congress generally follows the subject-matter committee structure. These Congressional organization patterns present certain obstacles to organization in the environmental field.
>
> The creation of a federal department on the environment cannot be considered or decided upon as exclusively a question concerning the organization of the Executive Branch, but involves the committee structure in Congress as well. 1/

1/Institutions for Effective Management of the Environment. Op. cit., p. 52.

A 1967 report by the Legislative Reference Service on Congressional Handling of Water Resources noted that although primary responsibility for water resource legislation rests largely with the Committees on Interior and Insular Affairs and Public Works, a number of other committees are also involved in numerous specific aspects of water and water-related legislation, including some of major scope. Among these are the Committee on Agriculture (House), and Agriculture and Forestry (Senate); Merchant Marine and Fisheries (House); Interstate and Foreign Commerce (House); Commerce (Senate); Foreign Relations (Senate); Foreign Affairs (House); and Banking and Currency (both House and Senate). In addition, the LRS report notes that other committees--Appropriations, Government Operations, and the Joint Committee on Atomic Energy--"have considerable say in how water resource programs are effectuated."1/ Concluding its survey of Congressional organization for water resource management, the LRS report states:

> With its roots deep in the historical and evolutionary pattern that has developed over the years, the present committee structure may well provide the best possible organization of workload. There are so many facets of responsibility in the water field that if an attempt were made to develop a committee structure for consistency in dealing with this one field, consideration of other functional activities might be fractured. 2/

1/Legislative Reference Service, Library of Congress. Congressional Handling of Water Resources, by Theodore M. Schad and Elizabeth M. Boswell. Washington, D.C., December 15, 1967 (Mimeo). p. 4-5. See Appendix I.

2/Ibid., p. 48.

Congressional handling of environmental issues is described in some current periodical literature as "scattered," "fragmented," or "uncoordinated."[1/] The actual situation probably lies somewhere between the epigrammatic view of the right hand not knowing what the left is doing, and that which holds the process to be characterized by smooth functioning, careful coordination, and statesman-like disinterest in prerogatives associated with committee membership. Senator Edmund S. Muskie, commenting a few years ago on the assignment of responsibility for water and sewer facilities, comes close to an explanation of the practical problem of jurisdiction facing most Members of Congress and Senators in their handling of environmental issues:

> The suggestion that the Federal Government provide support for the building of water and sewer facilities as contrasted with sewage treatment grants came in the 1965 Housing Act, and, as originally advanced, that program would have covered not only water and sewer facilities, but also sewage treatment plants, so that we would have had sewage treatment plants in two departments. I felt that the water and sewer grants themselves would go into the same department where the sewage treatment plant was, but I could not convince the executive agencies so we ended up, at least, focusing the collection sewers in one agency and the treatment plants in another agency, and since I was on both committees, it satisfied my jurisdictional problems. But also, I think, it made it an easier legislative task to enact both programs by having them in separate bills. That was particularly

---

1/See, for example: Pollution: Everyone's in on the Act, Business Week, January 24, 1970, pp. 116-120, and The Politicians Know an Issue, Newsweek, January 26, 1970, p. 33.

> true of the Housing Act, because the Housing Act covers such a multitude of sins that one extra does not show up as much as it might in a bill focused on one program. So congressional action is also responsible. 1/

More recently, the work of the Congress was described in the following excerpts from a paper presented at the annual meeting of the American Association for the Advancement of Science by Richard A. Carpenter:

> The means for dealing with the range of issues which produces over 25,000 bills in each Congress is the specialized committee. Most legislators are lawyers and businessmen with no formal training in the specialized professions which carry out the activities of our highly technical civilization. Therefore, the information on which to base decisions in environmental matters must be transferred from scientific disciplines to lawmakers.
>
> Most Congressmen serve during their entire careers on one or two committees and become quite perceptive in the subject matter under their jurisdictions. Environmental problems, however, are not the province of a single committee and are fragmented when they pass through the legislative process. For example, water pollution control may be considered by the Interior and Insular Affairs Committee or the Public Works Committee in the Senate and the Merchant Marine and Fisheries Committee, the Public Works Committee, or the Science and Astronautics Committee in the House of Representatives.
>
> A particular bias or viewpoint is imparted to an environmental policy issue, depending on which committee takes jurisdiction.
>
> Precedent dictates that certain matters are always assigned to certain committees. For example, while pesticides have been the subject of critical

---

1/Statement of Senator Edmund S. Muskie. In: Creative Federalism, Op. cit., p. 323.

hearings in Government Operations, Merchant Marine, and Fisheries and Commerce subcommittees, legislation regulating pesticides falls to Agriculture Committees, which usually give greater weight to crop protection values than to ecological side effects. As a result, despite considerable congressional investigation, the Federal Insecticide, Fungicide and Rodenticide Act has not been amended since 1964.

The public committee hearing is the traditional information-gathering procedure. It is often adversarial in nature, with the Committee taking one position and witnesses supporting another. In some cases, the Committee may not have a well-defined stand and testimony from varying viewpoints is arranged. Most hearings are limited in scope to one of the three legislative functions--authorization, appropriation or overview. Witnesses are admitted at the pleasure of the Committee Chairman. Time available is always short. Thus, a hearing may not cover all pertinent and authoritative sources of information.

Executive agencies appear to advocate and defend administration programs. The extent and expertness of their testimony may be great, but their objectivity is always subject to question because of the constitutional separation of powers.

Lobbies are a legitimate and forthright source of information and opinion. They serve to sort out special interests in complex matters and anticipate the results of legislative action. In environmental affairs, the lobbies for economic values are alert, capable, and active, while the ecological interests have often been represented in a less structured manner.

Committee staffs have been strengthened by adding professional positions somewhat removed from patronage considerations. The staff specializes, as do the Members, in legislation under the committee jurisdiction. Information flow from the corresponding agencies is usually good as far as program facts and budgets are concerned. When a critical evaluation is underway, the cooperation is naturally subject to strain.

Legislators are continually in touch with home State or district industries, civic groups, and individuals. Information and advice may be self-serving, but nevertheless extremely valuable as a guide to the practical grass roots results of laws passed in the Washington atmosphere of national policy.

Innovations in advisory mechanisms continue to appear. Several committees, and even informal groups of Congressmen, have formed ad hoc advisory panels. Choosing more or less well-known specialists in technical fields of interest, information is transferred via commissioned papers, meetings, informal hearings or discussion sessions and circulation of topical commentary.

For example, the Environmental Clearing House, Inc. was chartered in 1968 to form a nexus between a number of legislators from both Houses and over 100 participating voluntary advisors outside of government. This mechanism furnished witnesses on the Environmental Quality Council bill before the House Merchant Marine and Fisheries Committee. Other activities include circulation of submitted papers and an occasional newsletter to the groups of advisors and legislators.

In October 1969, a two-day meeting was arranged in the Senate Office Building by the Fund for New Priorities. The subject was the public sensitivity on pollution and other aspects of the "environmental crisis" and the political feasibility of taking stands on these issues. Over 100 legislators co-sponsored the meeting, but only a few actually attended.

To bridge the many committees interested in the environment without tackling the difficult problem of a formal joint committee, a House-Senate Colloquium on a National Policy for the Environment was held in July of 1968. Discussion with cabinet members and private sector opinion leaders was sponsored by the Senate Committee on Interior and Insular Affairs and the House Science and Astronautics Committee. Proceedings were published, and a report

"A Congressional White Paper on a National Policy for the Environment" was issued.1/

1/Carpenter, Richard A. "Information for Decisions in Environmental Policy" presented at AAAS meeting, Boston, December 28, 1969. Mimeo. (Available from Legislative Reference Service, Library of Congress.)

Reorganization Proposals

While the problem of rearranging the Congress to cope more effectively with environmental problems cannot be said to have evoked very much interest among legislators, a number of bills were introduced in the first session of the 91st Congress to provide links between environmental problems and the various concerned committees of both Houses of the Congress. Among these, several proposed the establishment of a Joint Committee on Environmental Quality, to make comprehensive studies, as well as to foster and promote environmental quality.1/ Another, the Omnibus Environmental Quality Act, proposed a high-level National Committee for Environmental Protection to report to the President and the Congress on the condition of the environment, as well as a Joint Committee to study and investigate matters contained in the National Committee's report.2/ Another joint-committee proposal was contained in a bill titled the Conservation Advisers Act, which would establish a 3-member Council of Conservation Advisers to be appointed by the President, and a Congressional counterpart Joint Conservation Committee.3/ A proposed Resources Conservation and Environmental Act, introduced in the Senate, provided for a 3-member Council of Advisors in the Executive Office of the President; required the President to transmit an annual report to the Congress on resources, conservation and the environment; and established in the House

---

1/H.R. 11816 (Mr. Dingell), and others.
2/H.R. 13764 (Mr. Brown of Ohio).
3/H.R. 12372 (Mr. Reid of New York).

and Senate Select Committees to make studies based on the President's report.[1] Similar legislation, introduced by Senator Gaylord Nelson, proposed a five-member Council on Environmental Quality.[2]

A Joint Committee on Oceanic and Atmospheric Programs was contained in a House Joint Resolution, to make continuing investigations and studies of problems and activities relating to both marine and atmospheric affairs.[3] In both the Senate and the House, measures were introduced calling for establishment of a Select Joint Committee on Population and Family Planning, to make "full and complete investigations and studies" of population and family planning in both the United States and the world.[4]

Measures were introduced in both the House and the Senate to establish standing or select committees to deal with environmental problems. Several House Resolutions called for establishment of a standing, 25-member Committee on the Environment, with jurisdiction over (1) water quality, (2) air quality, (3) weather modification, (4) waste disposal, (5) pesticides and herbicides, and (6) acoustic problems.[5] In the Senate, the long-time attempt to create a Select Committee on Technology and the Human Environment was continued, in a resolution introduced by Senator Muskie.[6] This provided establishment of a 21-member Select Committee

---

1/S. 237 (Mr. McGovern) and H.R. 8588 (Mr. Ashley).
2/S. 1752.
3/H.J. Res. 779 (Mr. Pollock).
4/S.J. Res. 62 (Mr. Tydings; H.J. Res. 480 (Mr. Bush); H.J. Res. 515 (Mr. Podell); and H.R. Res. 538 (Mrs. Chisholm).
5/H. Res. 375 (Mr. Brotzmann) and others.
6/S. Res. 78 (Mr. Muskie).

to make a comprehensive study and investigation of the character and extent of technological changes over the next 50 years, and to attempt to gauge the effect of such changes on society. Hearings were held on the Muskie proposal in March, April and May 1969, but final action was pending at year's end. A similar measure was introduced in the House by Mr. Brown of California.1/

1/H. Res. 157 (Mr. Brown of California).

The Structure of the 91st Congress

Following is a list of the various Committees of the Congress concerned with matters relating to the environment. In addition to those listed, several others on occasion consider some aspects of legislation related to environmental quality: Senate Committee on Finance (tax incentives); Senate Committee on Foreign Relations (international aspects, such as conferences, etc.); House Committee on Banking and Currency (Federal development grants, etc.); House Committee on the Judiciary (conservation bill of rights, etc.); House Committee on Rules (establishment of congressional committees to study the environment); House Committee on Ways and Means (tax incentives); and, of course, the Appropriations Committees which appropriate the revenue for the proposed programs.

Senate

Committee on Agriculture and Forestry

Jurisdiction

1. Inspection of livestock and meat products.
2. Animal industry and diseases of animals.
3. Adulteration of seeds, insect pests, and protection of birds and animals in forest reserves.
4. Agricultural colleges and experiment stations.
5. Forestry in general, and forest reserves other than those created from the public domain.
6. Agricultural economics and research.
7. Agricultural and industrial chemistry.
8. Dairy industry.
9. Entomology and plant quarantine.
10. Human nutrition and home economics.
11. Plant industry, soils, and agricultural engineering.
12. Agricultural educational extension services.
13. Extension of farm credit and farm security.
14. Rural electrification.
15. Agricultural production and marketing and stabilization of prices of agricultural products.
16. Crop insurance and soil conservation.

Committee on Commerce

Jurisdiction

1. Interstate and foreign commerce generally.
2. Regulation of interstate railroads, buses, trucks, and pipelines.
3. Communication by telephone, telegraph, radio, and television.
4. Civil aeronautics, except aeronautical and space activities of the National Aeronautics and Space Administration.
5. Merchant Marine generally.
6. Coast and Geodetic Survey.
7. Coast Guard.
8. U.S. Coast Guard and Merchant Marine Academies.
9. Weather Bureau.
10. Fisheries and wildlife.
11. National Bureau of Standards, including standardization of weights and measures and the metric system.
12. Other related matters.

Subcommittee

Energy, Natural Resources, and the Environment

Committee on Government Operations

Jurisdiction

1. Budget and accounting measures, other than appropriations.
2. Reorganizations in the executive branch of the Government. Such Committee shall have the duty of--
   a. Receiving and examining reports of the Comptroller General of the United States and of submitting such recommendations to the Senate as it deems necessary or desirable in connection with the subject matter of such reports;
   b. Studying the operation of Government activities at all levels with a view to determining its economy and efficiency;
   c. Evaluating the effects of laws enacted to reorganize the legislative and executive branches of the Government;
   d. Studying intergovernmental relationships between the United States and municipalities, and between the United States and international organizations of which the United States is a member.

Subcommittee

Intergovernmental Relations

Committee on Interior and Insular Affairs

Jurisdiction

1. Public lands generally, including entry, easements, and grazing thereon.
2. Mineral resources of the public lands.
3. Measures relating generally to insular possessions of the United States except for those affecting their revenue and appropriations.
4. Interstate compacts relating to apportionment of waters for irrigation purposes.
5. Mining interests generally.
6. Mineral land laws and claims and entries thereunder.
7. Geological survey.
8. Mining schools and experimental stations.
9. Petroleum conservation and conservation of the radium supply in the United States.
10. Other related matters.

Committee on Labor and Public Welfare

Jurisdiction

1. Measures relating to education, labor or public welfare generally.
2. Child labor.
3. Labor statistics.
4. Labor standards.
5. Vocational rehabilitation.
6. Public health and quarantine.

Subcommittee

Health

Committee on Public Works

Jurisdiction

1. Flood control and improvement of rivers and harbors.
2. Water power.
3. Oil and other pollution of navigable waters.
4. Other related matters.

Subcommittee

Air and Water Pollution

House

Committee on Agriculture

Jurisdiction

1. Inspection of livestock and meat products.
2. Animal industry and diseases of animals.
3. Adulteration of seeds, insect pests, and protection of birds and animals in forest reserves.
4. Agricultural colleges and experiment stations.
5. Agricultural economics and research.
6. Agricultural and industrial chemistry.
7. Entomology and plant quarantine.
8. Human nutrition and home economics.
9. Plant industry, soil, and agricultural engineering.
10. Agricultural education extension services.
11. Rural electrification.
12. Agricultural production and marketing and stabilization of prices of agricultural products.
13. Crop insurance and soil conservation.
14. Other related matters.

Committee on Government Operations

Jurisdiction

1. Budget and accounting measures, other than appropriations.
2. Reorganization in the executive branch of the Government. Such committee shall have the duty of:
   a. receiving and examining reports of the Comptroller General of the United States and of submitting such recommendations to the House as it deems necessary or desirable in connection with the subject matter of such reports;
   b. studying the operation of Government activities at all levels with a view to determining its economy and efficiency;
   c. evaluating the effects of laws enacted to reorganize the legislative and executive branches of the Government;
   d. studying intergovernmental relationships between the United States and the States and municipalities, and between the United States and international organizations of which the United States is a member.

Subcommittee

Conservation and Natural Resources

Committee on Interior and Insular Affairs

Jurisdiction

1. Irrigation, reclamation, and other water resources development programs of the Department of the Interior.
2. Saline water research and development program.
3. Water resources research program.
4. Development, utilization, and conservation of oil, gas, helium, geothermal steam, and associated resources of the public and other Federal lands.

Committee on Interstate and Foreign Commerce

Jurisdiction

1. Interstate and foreign commerce generally.
2. Civil aeronautics.
3. Interstate oil compacts and petroleum and natural gas, except on the public lands.
4. Public health and quarantine.
5. Regulation of interstate and foreign communications.
6. Regulation of interstate and foreign transportation, except transportation by water not subject to the jurisdiction of the Interstate Commerce Commission.
7. Regulation of interstate transmission of power, except the installation of connections between Government water power projects.
8. Securities and exchanges.
9. Weather Bureau.

Committee on Merchant Marine and Fisheries

Jurisdiction

1. Merchant Marine generally.
2. Measures relating to the regulation of common carriers by water and to the inspection of merchant marine vessels, lights and signals, lifesaving equipment, and fire protection on such vessels.
3. United States Coast Guard and Merchant Marine Academies.
4. Coast and Geodetic Survey.
5. Fisheries and wildlife, including research, restoration, refuges, and conservation.
6. Oceanography.

Subcommittees

Fisheries and Wildlife Conservation
Oceanography

Committee on Public Works

Jurisdiction

1. Flood control and improvement of rivers and harbors.
2. Water power.
3. Oil and other pollution of navigable waters.

Subcommittees

Flood Control
Rivers and Harbors

Committee on Science and Astronautics

Jurisdiction

1. Astronautical research and development, including resources, personnel, equipment, and facilities.
2. Bureau of Standards, standardization of weights and measures, and the metric system.
3. National Aeronautics and Space Administration.
4. National Science Foundation.
5. National Aeronautics and Space Council.
6. Outer Space, including exploration and control thereof.
7. Science scholarships.
8. Scientific research and development.

Subcommittee

Science, Research, and Development

Joint Committees

Joint Committee on Atomic Energy

Jurisdiction

Makes continuing studies of activities of the Atomic Energy Commission and problems relating to the development, use, and control of atomic energy. The Committee is responsible for acting on the authorization requests for all of the Atomic Energy Commission's programs, including construction projects and operating costs for all research and development efforts. The Commission keeps the Committee fully and currently informed on all Commission activities; the Department of Defense keeps the Committee fully and currently informed on all matters in Department of Defense relating to development, utilization, or application of atomic energy. Any Government agency, at its direction, furnishes information requested by the Committee regarding activities or responsibilities of that agency in the field of atomic energy.

The Committee is authorized to sit and act at places and times it deems advisable, has subpoena powers, and may report directly to the Congress by bill, or otherwise.

Financing an Improved Environment

Popular estimates of the cost of restoring and maintaining a quality environment range upwards from $100 billion, or $20 to $25 billion a year for a 5-year period. These estimates are unsubstantiated by data, and there is little agreement among articles in the news media on components of such estimates. There is, however, general agreement that costs will be high (although not a large percentage of the GNP), that they will be shared by all levels of government as well as industry, and that costs ultimately will be borne by everyone, in higher taxes, lower profits to shareholders, and higher prices paid for consumer goods.

The U.S. Budget for 1971 carries estimates of Federal outlays in fiscal 1970 for "major environmental quality programs" of $785 million, of which $447 million is designated "recreational resources"; $258 million, "water pollution control"; and $80 million, "air pollution control." Further, the Budget's estimates of outlays for fiscal 1971 are $546 million, $465 million, and $104 million, respectively for these categories of expenditures.

President Nixon's budget message includes the following:

> One of the most important new initiatives that I am proposing for the first time in this budget is to enhance the quality of life—the legacy of one generation of Americans to the next.
>
> Our environment is becoming increasingly unpleasant and unhealthful. We are hampered by polluted air, contaminated rivers and lakes, and inadequate recreation opportunities.
>
> Despite current budget stringency, we must find a way to move aggressively on these problems *now*. Delay would make our environment more unlivable, and raise the costs of what we must do in any event. I will send a Special Message to the Congress setting forth major proposals to improve and protect our surroundings.

Highest priority will go to elements of the program designed to attack water pollution and air pollution—those problems that most directly impinge on our health and well-being.

The major responsibility to reduce pollution rests appropriately with State and local governments and the private sector. However, the Federal Government must exert leadership and provide assistance to help meet our national goals.

Clean water.—I am proposing a sustained national commitment to meet our water quality goals. I will seek legislation for a 5-year program providing grants to communities for the construction of sewage treatment facilities. This effort will grow in momentum as communities complete their plans and begin construction. When combined with State and local matching funds, this program will provide $10 billion of construction beyond that already appropriated by the Congress.

The proposed environmental financing authority, discussed later in this Message, will help local communities finance their share of the projects.

I am proposing a fundamental reform of the municipal waste-treatment program to assure that Federal funds go to areas where the benefits are clear and where State and local governments have developed adequate programs to achieve stated goals. We must also assure that cost sharing for treatment works is equitable and creates incentives for reducing the amount of waste that would otherwise have to be treated in municipal systems.

I am recommending increased assistance to State water pollution control agencies and a strengthening of enforcement provisions.

Clean air.—We are now asking the States to set standards for two major air pollutants—sulfur oxides and smoke particles. Standards for additional pollutants will be set shortly. I am proposing additional funds and manpower to help the States with this difficult task.

To help control air pollution, we will accelerate efforts to control sulfur and nitrogen oxides. We will call upon private industry to help solve the problem. The airlines have already agreed to abate aircraft smoke emission by 1972. We will increase our own spending for air pollution control by more than 30% in 1971.

Open space.—Improving the environment will also require increased efforts to provide adequate park and recreation open space—particularly in and near cities, where the need is the greatest and land prices have been escalating most rapidly. I am recommending appropriation of all the funds presently authorized for the Land and Water Conservation Fund to speed acquisition of Federal park lands and increase assistance to States to provide more recreation opportunities. Wilderness, open space, wildlife—once gone—are lost forever.

> ***Contribution of science and technology.***—Where technology has polluted, technology can purify. Solutions to many of our problems can be found only through greater understanding of our environment and man's impact upon it. We must also augment our ability to measure and predict environmental conditions and trends.
>
> I am confident that this challenge can be met by our leading research institutions and scientists. To encourage research related to environmental and other national problems, I am recommending that appropriations for the National Science Foundation be increased. 1/

Set out elsewhere in the Budget is another category of expenditures titled "Natural Resource" programs, most of which involved environmental aspects other than those already mentioned:

> ***Budget highlights.***—Total outlays for natural resources programs (before deducting offsetting receipts) are estimated at $4.6 billion in 1971, an increase of $740 million over 1970. Increases for waste treatment grants ($204 million), recreation programs financed by the Land and Water Conservation Fund ($68 million), and Corps of Engineers and Bureau of Reclamation water programs ($212 million) account for 65% of the total increase. 2/

1/Budget Message of the President, fiscal year 1971, pp. 27-29.
2/Budget of the United States. Op. cit. p. 110.

The following table from the Budget lists the various natural-resource activities for 1969 along with estimates for 1970 and 1971:

THE FEDERAL PROGRAM BY FUNCTION

NATURAL RESOURCES

[In millions of dollars]

Program or agency	Outlays			Recommended budget authority for 1971 [1]
	1969 actual	1970 estimate	1971 estimate	
Water resources and power:				
Corps of Engineers [2]	1,244	1,235	1,395	1,298
Department of the Interior:				
Bureau of Reclamation [2]	288	274	326	298
Power marketing agencies [2]	140	136	131	127
Federal Water Pollution Control Administration:				
Present programs [2]	215	258	423	98
Proposed legislation for water pollution control	-------	-------	42	4,002
Office of Saline Water [2]	37	37	28	29
Office of Water Resources Research and other	11	10	11	14
Tennessee Valley Authority	187	224	425	250
Soil Conservation Service—watershed projects [2]	101	123	124	112
International Boundary and Water Commission	12	4	8	8
Federal Power Commission and other [2]	21	25	28	27
Subtotal, water resources and power	2,256	2,325	2,940	6,264
Land management:				
Forest Service [2]	473	549	590	559
Bureau of Land Management and other [2]	170	196	180	179
Mineral resources [2]	71	116	110	105
Recreational resources:				
Bureau of Outdoor Recreation:				
Present programs [2]	129	180	193	143
Further program proposals	-------	7	62	189
National Park Service [2]	133	147	151	135
Bureau of Sport Fisheries and Wildlife and other [2]	109	112	139	130
Other natural resources programs:				
Geological Survey	92	98	105	106
Bureau of Commercial Fisheries and other [2]	69	80	78	69
Deductions for offsetting receipts:				
Interfund and intragovernmental transactions	—*	—1	—1	—1
Proprietary receipts from the public	—1,372	—1,324	—2,047	—2,047
Total	2,129	2,485	2,503	5,830
Expenditure account	2,123	2,479	2,498	5,827
Loan account	7	6	5	3

* Less than $500 thousand.
[1] Compares with budget authority for 1969 and 1970 as follows:
1969: Total, $2,246 million (NOA, $2,245 million; LA, $2 million).
1970: Total, $3,021 million (NOA, $3,018 million; LA, $4 million).
[2] Includes both Federal funds and trust funds.

Source: The Budget of The United States Government, Fiscal Year 1971. Washington, D.C. U.S. Gov't. Printing Office, 1970. p.109.

To date, there appears to be no analysis of expenditures developed by the Bureau of the Budget to give a comprehensive view of the cost of all Federal programs associated with an improved environment. Such an analysis was underway in early February 1970, with a call by the Budget Bureau on all Executive agencies for information on Federal funding for environmental quality programs. A major problem in such an analysis, according to the Bureau, is the difficulty in defining the term "environmental quality." Agencies are being asked to supply information on any activity which they feel contributes substantially to protecting and enhancing environmental quality, in addition to programs directed more particularly to pollution control and abatement.

About certain aspects of the environment, i.e., water pollution, hard information has been developed to the point that costs can at least be estimated; to a lesser extent, this is also true of air pollution. But for total environmental improvement, cost estimates must await the development of an ability to define with more exactness the dimensions of a "quality" environment, to set goals, and to measure and predict conditions and trends. In some cases a technological change may cure the environmental problem with no increase in cost.

Federal expenditures for water quality or water pollution control, air pollution abatment, and solid waste disposal have been estimated for fiscal years 1969 and 1970. According to information compiled by the staff of the Appropriations Committee of the House of Representatives, from information contained in the January 1969 Budget

submitted by President Johnson, fiscal year 1970 estimated expenditures for water quality or water pollution control totaled $578.5 million, of which $83.8 million was allocated to studies and investigations. In addition, 1970 estimates for air pollution abatement totaled $117.6 million, and solid waste disposal, $16.9 million.1/

BUDGET INFORMATION FOR ACTIVITIES RELATED TO WATER QUALITY OR WATER POLLUTION CONTROL

[In millions of dollars]

Department or agency	Studies, investigations, and related activities			Grants, loans, and subsidies for pollution control activities			Total		
	Fiscal year 1968 actual	Fiscal year 1969 estimate	Fiscal year 1970 estimate	Fiscal year 1968 actual	Fiscal year 1969 estimate	Fiscal year 1970 estimate	Fiscal year 1968 actual	Fiscal year 1969 estimate	Fiscal year 1970 estimate
Atomic Energy Commission:									
Water cycle	$1.01	$1.02	$1.05				$1.01	$1.02	$1.05
Water supply augmentation and conservation	.07	.06	.03				.07	.06	.03
Water quality management and protection	1.28	1.56	1.57				1.28	1.56	1.57
Total	2.36	2.64	2.65				2.36	2.64	2.65
National Aeronautics and Space Administration	1.04	2.28	2.31				1.04	2.28	2.31
Department of Transportation: U.S. Coast Guard	.78	1.61	5.07				.78	1.61	5.07
Department of Commerce:									
Economic Development Administration				$5.00	$6.60	$5.30	5.00	6.60	5.30
Business and Defense Services Administration			.20						.20
National Bureau of Standards	.20	.20	.20				.20	.20	.20
Maritime Administration			.20						.20
Total	.20	.20	.60	5.00	6.60	5.30	5.20	6.80	5.90
Tennessee Valley Authority	1.20	1.30	1.40				1.20	1.30	1.40
Department of the Army: Corps of Engineers:									
Water quality control	4.21	2.47	2.88				4.21	2.47	2.88
Disposal of dredgings	4.78	7.00					4.78	7.00	
Effects of impoundments	.07	.07	.10				.07	.07	.10
Total	9.06	9.54	2.98				9.06	9.54	2.98
Department of Defense	.29	.53	1.20				.29	.53	1.20
Department of Health, Education, and Welfare: Environmental Control Administration	2.40	2.20	2.80				2.40	2.20	2.80
Appalachian Regional Commission:									
Sewage treatment facilities				9.80	3.60	3.00	9.80	3.60	3.00
Land stabilization and conservation				2.20	1.80	4.80	2.20	1.80	4.80
Acid mine drainage study	.50	.20					.50	2.0	
Total	.50	.20		12.00	5.40	7.80	12.50	5.60	7.80

1/Ibid.

BUDGET INFORMATION FOR ACTIVITIES RELATED TO WATER QUALITY OR WATER POLLUTION CONTROL 1/ (continued)

Department of Agriculture:									
Research (ARS, CSRS, ERS, FS)	11.50	12.40	12.80	1.60	2.00	2.10	13.10	14.40	14.90
Farmers Home Administration, direct loans and grants:									
Water and waste disposal system loans				79.60	74.00	74.00	79.60	74.00	74.00
Development grants for water and waste disposal systems				23.00	23.50	45.00	23.00	23.50	45.00
Irrigation and drainage loans				.50	.90	.30	.50	.90	.30
Housing loans				1.80	1.80	4.50	1.80	1.80	4.50
Soil and water and farm ownership loans				3.00	.90	.30	3.00	.90	.30
Total, FHA				107.90	101.10	124.10	107.90	101.10	124.10
Forest Service (excluding research)	1.80	1.60	1.80				1.80	1.60	1.80
Total	13.30	14.00	14.60	109.50	103.10	126.20	122.80	117.10	140.80
National Science Foundation	.49	.45	.50	.02	.02	.03	.51	.47	.53
Department of Housing and Urban Development				79.40	91.20	91.20	79.40	91.20	91.20
Department of the Interior:									
Geological Survey	2.90	3.50	3.60				2.90	3.50	3.60
Bureau of Mines	.13	.05	.05				.13	.05	.05
Bureau of Commercial Fisheries	.60	.60	.60	.20	.10	.10	.80	.70	.70
Bureau of Sport Fisheries and Wildlife	1.20	1.20	1.20				1.20	1.20	1.20
Office of Saline Water	.60	.60	.30				.60	.60	.30
National Park Service	.40	.30	.20				.40	.30	.20
Bureau of Reclamation	.15	.14	.14				.15	.14	.14
Office of Water Resources Research	2.20	2.20	1.70				2.20	2.20	1.70
Federal Water Pollution Control Administration	36.55	38.13	41.89	258.63	262.72	264.08	295.18	300.85	305.97
Total	44.73	46.72	49.68	258.83	262.82	264.18	303.56	309.54	313.86
Grand total	76.35	81.67	83.79	464.75	469.14	494.71	541.10	550.81	578.50

NOTES

1. Amounts shown reflect budget requests contained in the January budget transmitted by President Johnson.

2. Department of Agriculture figures exclude amounts as follows:

	1968	1969	1970
Insured loans directly related to water pollution control	$98.1	$130.5	$142.5
Amounts contributing to water pollution control, but not directed solely at that objective (mainly Soil Conservation Service and agricultural conservation program)	300.0	299.4	241.2
Total	398.1	429.9	383.7

3. Funds are also included in the budget for other pollution abatement activities, in the following approximate amounts:

	1968	1969	1970
Air pollution abatement	$81.2	$110.1	$117.6
Solid waste disposal	14.7	15.6	16.9
Total	95.9	125.7	134.5

4. The above figures were gathered from several sources, and do not represent an exhaustive analysis of this subject. In addition, there may be some inconsistency among agencies as to the criteria employed to derive figures. A study now being conducted by staff of the House Committee on Appropriations will shed further light on these matters when it is completed.

Source: 91st Cong., 1st Sess. House. Department of Agriculture Appropriations for 1970. Part 5, Washington, April 22, 1969. pp. 366-367

According to the first report to the Congress required by the Air Quality Act of 1967, the Department of Health, Education, and Welfare estimated that total governmental expenditures (Federal, State, and local) for air pollution control programs would rise from $122.9 million in fiscal 1969 to $454.5 million in 1974. Excerpts from that report follow:

It is estimated that governmental expenditures for air pollution control programs will grow at an annual rate of about 30 percent. Summary table 1 shows estimates of combined Federal-State-local spending.

SUMMARY TABLE 1.—*Estimated governmental expenditures*

Fiscal year:	*Millions*
1969	$122.9
1970	159.6
1971	207.4
1972	269.3
1973	350.0
1974	454.5
Total	1,563.7

Estimates of industrial spending were developed for fuel combustion sources and selected industrial process sources located in 85 metropolitan areas. These estimates pertain to the control of sulfur oxides and particulate emissions from steam-electric powerplants and industrial and commercial fuel-burning facilities. Summary table 2 shows the estimated range of annual costs of control. The upper and lower ends of the range reflects probable variations in costs of control equipment, installation, and other factors. Fiscal 1971 is the first year for which estimates are presented, since it is then that implementation of air quality standards is expected to begin under the time table prescribed by the Air Quality Act.

SUMMARY TABLE 2.—FUEL COMBUSTION SOURCES: ESTIMATED ANNUAL COSTS OF SUBSTITUTING LOW-FOR HIGH-SULFUR COAL AND 1 PERCENT SULFUR FOR HIGHER SULFUR RESIDUAL OIL COMBINED WITH MAXIMUM CONTROL OF PARTICULATE EMISSIONS IN 85 METROPOLITAN AREAS

[In millions of dollars]

Fiscal year	Low	High
1971	401.6	455.0
1972	635.2	730.3
1973	662.1	765.7
1974	689.3	801.4

The estimates for industrial process sources pertain to the control of particulate emissions and, in some cases, sulfur oxides emissions, from integrated steel mills, asphalt batching plants, hydraulic cement plants, gray iron foundries, sulfate pulp mills, petroleum refineries, and sulfuric acid plants located in the 85 metropolitan areas. Com-

bined estimates of the annual costs of achieving maximum control of sulfur oxides and particulate emissions from these sources are shown in Summary table 3.

SUMMARY TABLE 3.—INDUSTRIAL PROCESS SOURCES: ESTIMATED ANNUAL COSTS OF MAXIMUM CONTROL OF PARTICULATE EMISSIONS AND SULFUR OXIDES CONTROL IN SELECTED INDUSTRIES IN 85 METROPOLITAN AREAS

[In millions of dollars]

Fiscal year	Low	High
1971	41.7	82.3
1972	73.3	137.4
1973	74.5	139.8
1974	76.5	140.8

In comparison with various measures of the economic status of the industries covered in this report, the estimated costs of controlling sulfur oxides and particulate emissions are small. The highest estimate of annual costs of the electric power industry, ... amounts to less than one-half of 1 percent of projected 1974 electric operating revenues from plants serving the 85 metropolitan areas covered in this report. The highest estimates of the annual costs of controlling sulfur oxides and particulate emissions from the industrial process sources covered in this report generally amount to less than 2 percent of each industry's projected 1974 value of shipments from plants located in the 85 metropolitan areas. The sole exception is the sulfur acid industry.

Estimates are also provided of the prospective costs to consumers for control of motor vehicle pollution. These estimates are based on the automobile industry's data on costs that have been or will be passed on to new car buyers for compliance with national standards established by the Department of Health, Education, and Welfare.

On the basis of the industry's data, it appears that buyers of American-made 1968 and 1969 model passenger cars paid about $18 per car for compliance with the national standards; that they can expect to pay about $36 per car for compliance with the more stringent standards that will take effect in the 1970 model year; and that an additional $12 cost will be passed on to consumers for compliance with the evaporative emission limitations scheduled to take effect in the 1971 model year. Additional operating and maintenance costs will be small. 1/

1/91st Cong., 1st sess. Senate. The Cost of Clean Air. First report of the Secretary of Health, Education, and Welfare to the Congress... in compliance with Public Law 90-148, The Air Quality Act of 1967, June 1969. Washington, Oct. 16, 1969. pp. 1-2. (Document No. 91-40).

The probable cost of solid waste management was considered by an ad hoc committee of the National Academy of Engineering-National Academy of Sciences in 1969.[1] The Committee's report estimated that annual direct National costs for collection and disposal were in excess of $4.5 billion, exclusive of a number of areas, such as internal costs to industry and agriculture, householder and institutional costs, associated losses in property values, individual medical or loss-of-health costs from inadequate disposal, as well as the value of potentially reusable fractions of solid wastes. The Committee's recommended level of minimum adequate funding of the Federal responsibility under the 1965 Solid Waste Disposal Act (P.L. 89-272) excluded grants or cost-sharing for installation of "essentially conventional or normal advances in the state-of-the-art facilities and equipment."[2] The report said:

> In considering the type of business, the low level of technological development, the potentials for reducing costs and increasing recycle of resources, and the potentials for significantly improving man's feeling of well-being and the quality of his environment, the Committee suggests that annual federal expenditures of 2 percent of the waste-disposal business gross would be in line with good business practice. This would be an annual federal expenditure of about $90 million, assuming a total annual system's cost of $4.5 billion.

1/National Academy of Engineering-National Academy of Sciences. Policies for Solid Waste Management. Prepared by Ad Hoc Committee on Solid Waste Management, Committee on Pollution Abatement Control, Division of Engineering, National Research Council. Washington, D.C., 1969.

2/Ibid. p. 49

It may well be that the long-term costs of funding that the Committee feels is the proper federal government responsibility for research, development, demonstration, and information related to the adequate management of solid wastes could reach $90 million. However, the Committee cannot at this time recommend such a level. Even if funds were available, such expansion of the effort could probably not be efficiently carried out in a time period of less than 5 years unless a crash program were initiated.

...

The Committee reviewed the various individual recommendations, the present state of the art, the present level of support under the Solid Waste Disposal Act of 1965, the rate of buildup and the realistically attainable levels of progress in the next 5 years, given adequate funds. This to the Committee proved to be the more useful method of arriving at recommended funding.

The total costs of the recommended actions will rise to higher levels than the present costs under the Solid Waste Disposal Act. For example, the costs of demonstration will be largely incremental to the present program costs. Work on new concepts in solid waste management has up to now been largely concentrated in the research phase. Out of this will come a number of projects that will...have to be piloted or demonstrated in nearly full scale on operational or "real world" sites in order to be properly developed and thus acceptable for local or regional use. ...

The annual rate of expenditures for solid waste management research and development cannot be increased indefinitely. A longer range balance between research and the more expensive demonstration or pilot operations should come about and cause a leveling out; ultimately the total level could be established as a percentage of the total public-sector solid waste disposal expenditures. As noted above, comparison with technically similar private-sector businesses suggests 2 percent per annum would be an efficient use of funds.

A table of minimum activity levels of funding major recommendations, endorsed and recommended by the Committee, is shown on the following page. 1/

RECOMMENDED ALLOCATION OF FUNDS
BY
SPECIFIC CATEGORY OF NEED FISCAL YEARS 1970-1974 ($'000)

SOLID WASTE DISPOSAL ACT OF 1965, PUBLIC LAW 89-272
(BUREAU OF SOLID WASTE MANAGEMENT ONLY)

	1968	1970	1971	1972	1973	1974
Recommendation No. 1 Information and communication	-	500	1,500	2,000	2,500	3,000
Recommendation No. 2 Systems and components, research, development and demonstration	8,445	13,500	19,000	23,500	26,000	26,500
Recommendation No. 3 Management information, planning, and manpower training	2,925	3,000	3,500	3,500	4,000	4,000
Administrative costs	2,645	3,000	3,500	3,500	3,500	3,500
Total	14,115	19,500	27,000	32,000	35,500	36,000

Source: Policies for Solid Waste Management. Op. cit. p. 51.

1/Ibid. pp. 49-50.

Against the recommended allocation of Federal funding for solid waste disposal by the NAE/NAS report cited above, a May 1969 report by the Office of Science and Technology stated that Federal funding through FY 1968 for research, development, and demonstration "is insufficient in relation to the total solid waste needs." The OST report indicated that Federal funding under the Solid Waste Disposal Act for fiscal years 1966, 1967 and 1968 totaled $23.5 million:

ESTIMATED SOLID WASTES PROGRAM EXPENDITURES FOR RESEARCH, DEVELOPMENT, AND DEMONSTRATIONS (FYs 66-68)

Research support mechanism	FY 66	FY 67	FY 68
	(thousands of dollars)		
Intramural	295	1,550	2,309
Contract	280	1,016	1,103
Grant			
Research	853	1,677	2,515
Demonstration	1,989	5,000	5,000
TOTALS	3,417	9,243	10,927

Source: Executive Office of the President, Office of Science and Technology. Solid Waste Management--A comprehensive assessment of solid waste problems, practices and needs. Prepared by Ad Hoc Group for OST. Washington, U.S. Govt. Print. Off., May 1969. p. 76.

Other areas of the 1971 Budget which can be associated with an improved environment include proposed expenditures for programs in prevention and control of health problems ($618 million) and a proposal for expenditure of $700,000 for operation of the Council on Environmental Quality.

The Organization for Economic Cooperation and Development is reported to have calculated that a continuing annual outlay of 2 percent of gross national product among its 22-nation membership would be required "to ensure that environmental deterioration is gradual rather than rapid", that "holding the line would cost about 4 percent of GNP, ...and actively cleaning up past--and preventing future--pollution could cost three to four times as much."[1/] Applying these thumbnail estimates to the 1969 U.S. Gross National Product of $932.3 billion, a minimum expenditure of some $20 billion per year would be required to reduce environmental deterioration, or $40 billion-per-year expenditure to halt further degradation of the environment. Such amounts will be difficult to identify because they will be the total of diverse cost increases and government outlays. The subjective nature of many environmental quality aspects makes economic analysis imprecise. It is reasonable to expect that Federal expenditures in these fields will be labeled through the efforts of the Council on Environmental Quality and the Bureau of the Budget.

1/Jonathan C. Randal. Pollution fight called costly. The Washington Post, February 19, 1970.

International Aspects

The essence of the environmental issue for political institutions is that arbitrary jurisdictional boundaries do not coincide with ecological regions. The "spaceship earth" concept illustrates the finite resources available, the necessity for maintaining the quality of these resources, and the fact that they are shared by all the world's population. Pollutants move from origins in one country to produce effects in another. Oil spills in international waters must be considered by many governments. Agreements on the harvest of fish and the protection of migratory birds are already in existence. Many environmental problems are local, but they occur in similar fashion throughout the world. Pollution abatement techniques which are successful in one country may be transferred to application in others. The less-developed nations can benefit from the experiences of the industrialized countries.

For these reasons, environmental affairs have become major topics in international affairs. Groups such as the United Nations, the Organization for Economic Cooperation and Development, and the North Atlantic Treaty Organization are involved in a variety of environmental programs. The Interparliamentary Union and the Council of Europe are two solely legislative international bodies which have fostered conservation studies.

In late December 1969, the United Nations General Assembly authorized the Secretary-General to proceed with preparations for a United Nations World Conference on the Human Environment to be held in June 1972 in Sweden. The resolution adopted by the General Assembly affirms the

main purpose of the conference to be the encouragement and development of guidelines for international cooperation to improve and protect the human environment, and to help developing countries avoid such problems as have afflicted the industrialized nations.

Because of the unique constitutional separation of powers in the United States, the Congress has a special role in international deliberations. In regard to environmental matters, several Committees of the Congress in addition to the Foreign Affairs and Foreign Relations units are concerned. Knowledgeable contributions from many Members could be obtained through participation in, or close contact with, United States delegations to the various international bodies. Congressional appreciation of the international aspects of the environment is necessary for the appropriations support of the many Federal activities with other nations.

Activity in Environmental Affairs, 91st Congress, 1st Session

The first session of the 91st Congress produced significant gains on the environmental front. In addition to passage of the National Environmental Policy Act, activity on a number of environmental matters was pressed. Final action on a number of bills was pending at the end of the first session.

Following are a number of selected categories of environmental areas under which are outlined major legislative activity in 1969. These outlines, together with some discussion of Congressional concern with environmental problems, were prepared by members of the staff of the Environmental Policy Division of the Legislative Reference Service.

Agriculture

Legislative proposals affecting the quality of the environment in terms of agricultural conservation practices and rural development were abundant in the 1st Session of the 91st Congress. Although only one major bill--the extension of the Great Plains Conservation Program--became law, interest in other measures was significant. The important set of rural development bills in many instances restated proposals of earlier Congresses, and included a variety of means for attacking the problems of rural economic lag and its effect on the rural--urban balance.

Great Plains Conservation Program

Congress enacted the original Great Plains Conservation Program legislation in 1956 to help farmers and ranchers in the States of Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, South Dakota, Oklahoma, Texas and Wyoming to solve soil and water conservation problems. P.L. 91-118, approved on November 18, 1969, extended the program to December 31, 1981 and authorized appropriations of $250 million. As amended, the program includes non-farm lands to the extent necessary to protect farm or ranch lands, and to owners and operators who are not producers. Additionally, Federal assistance will be given to enhance fish, wildlife, and recreation resources, promote economic use of land, and reduce or control agriculture-related pollution.

Senate Report 91-269 emphasized the need for the proposed extension, stating that of the 110,500,000 acres of cropland, and 215 million acres of range and pastureland in the area covered by the program, to date, only 43 million acres of cropland and 91 million acres of range and pasture lands had adequate treatment to meet conservation needs.

In hearings before the Subcommittee on Conservation and Credit of the House Committee on Agriculture, Congressional witnesses from the Great Plains States testified to the effectiveness of the existing program in their States, and made strong arguments for the continuation of the program for the reduction of sediment and soil dust pollution and the general economic welfare of the area.

International Quarantine Station

Bills were considered in both the House and Senate to establish an international quarantine station to be operated by the United States Department of Agriculture to control the entry into the United States of domestic animals and breeding stock from foreign countries. The measure would provide assurance against the introduction into domestic herds of foot-and-mouth disease, rinderpest, and other exotic diseases through quarantine for disease detection.

Hearings on H.R. 11832 (Mr. Purcell) were held by the Subcommittee on Livestock and Grains of the House Agriculture Committee on November 18 and 19, 1969. Witnesses discussed the economic benefits to the American cattle industry if an effective quarantine station could be established, and supported the legislation on grounds of greater safety and improvement of domestic herds, as well as protection of human health.

On December 8, 1969, hearings were held by the Subcommittee on Agricultural Research and General Legislation of the Senate Agriculture and Forestry Committee on S. 2306, introduced by Senator Hruska. Witnesses stressed the same major points as were touched in the House hearings.

H.R. 11832 was reported to the House of Representatives on December 19, 1969 (H. Rept. 91-776). Further action on the measure was pending at the close of the 1st Session.

Rural Development Legislation

In the first session the concern of legislators for the growing and threatening problems of rural unemployment, lack of rural growth and development, and migration of the rural poor into the already

over-crowded urban areas was reflected by the abundance of rural development legislation introduced.

Tax-incentive bills would provide income-tax credits and other benefits for various industrial or commercial enterprises in rural development areas. Senator Pearson's bill, S. 15 was a model for other bills, and was the subject of hearings before the Senate Finance Committee, May 21 and 22, 1969. It would require certification of industries in the rural development area by local authority as consistent with local zoning ordinances and regional planning. During the hearings on S. 15, lengthy testimony pointed to the need to build up rural employment and economic levels. Similar House bills were referred to the Ways and Means Committee.

Several community self-determination bills, aimed at removing discrepancies between an employed and economically sound segment of the nation's population and the poor of rural and urban slums were introduced. The bills would establish community programs to help people in securing gainful employment, and in achieving ownership and control of the resources of their own communities. They provided for the organization of National Community Development Corporations by the people in the affected communities, with the capital being raised by the sale of shares. S. 33 (Mr. Goodell) was referred to the Senate Finance Committee, and the four House bills (H.R. 243, 6738, 7750 and 7901) were referred to the House Ways and Means Committee.

Bills to amend the Rural Electrification Act of 1936 were of three types: (1) to establish rural telephone banks, (2) to establish loan accounts and insured loan programs, and (3) to help set interest rates on loans made by the REA. H.R. 7 and S. 1684 would provide for privately-owned and operated telephone banks and a special rural telephone account to be set up in the U.S. Treasury. Two bills, H.R. 7013 and H.R. 7073 were designed to encourage financing of rural electric and telephone systems with non-federal funds, aided by a Rural Electrification Loan Insurance Fund to be created in the U.S. Treasury.

H.R. 3812, (Mr. O'Konski) would authorize the making or insuring of recreational enterprise loans under the Consolidated Farmers Home Administration Act to industries, corporations, non-corporate business organizations, and local public bodies in amounts up to 90 percent of the cost. Similar bills would extend credit from FHA to cooperatives serving rural people and authorize an increase in the amount of insured operating loans which may be made by FHA; eligibility would be extended to low-income farmers and ranchers.

On March 26, 1969 Congressman Evins introduced H.R. 9586, the National Population Dispersal Study Act, to establish a commission to "study and promulgate a national policy respecting dispersal of population and industry." S. J. Res. 60, introduced by Senator Mundt on February 28, 1969 would create a Commission on Balanced Economic Development to study and analyze current geographic trends in economic

development and the relationship of those trends to the physical, social, and political environment. The Commission would seek ways and means by which the Federal Government might effectively encourage a more balanced population and a more balanced economic growth. The resolution was reported in the Senate (Rept. 91-201), where it was passed on May 27, 1969, and referred to the House Committee on Interstate and Foreign Commerce.

Several bills, including S. 1474 (Senator Proxmire) and H.R. 14901 (Mr. Hammerschmit) would aid in financing development of land for recreational purposes. Senator Proxmire's bill would amend the Housing and Urban Development Act of 1968 to authorize the Secretary of Housing and Urban Development to guarantee obligations issued by recreational facility developers up to $50 million to build necessary public facilities such as access roads, water and sewage systems, docks, beaches and additional resort features. Mr. Hammerschmit's bill would authorize the Secretary of Agriculture, under the Bankhead-Jones Farm Tenant Act, to bear an equitably proportionate share of installment and engineering costs of improvements relating to public fish, wildlife and recreational development, and half the cost of acquisition of necessary land and the basic facilities necessary for the minimum safe operation of the areas.

A bill (H.R. 13717) which would set out a Congressional policy to restore cropland in proportion to the rate at which it is being used and depleted was introduced in October 1969 by Congressman Hall. The

measure would establish programs to assist farmers to divert portions of their cropland from production of excess commodities and to carry out voluntary programs of soil, water, forest and wildlife conservation.

Three bills, H.R. 8812, 8773 and 10650 were introduced in the first session to increase from $50 million to $150 million the amount for grants which the Secretary of Agriculture would be authorized to make associations for financing storage, purification and distribution of water or the collection, treatment or disposal of waste in rural areas. No action was taken on these measures.

Senator Byrd of West Virginia introduced S. 701 to authorize the Secretary of Agriculture to enter into ten-year cost-sharing agreements with landowners and operators for the conservation of soil, water, woodlands and wildlife. The bill was referred to the Senate Committee on Agriculture and Forestry, but received no further consideration in the first session.

Air Pollution

With the Air Quality Act of 1967 still in force and unchanged, Congressional activity in air pollution control in the first session of the 91st Congress was concerned largely with two issues that had not been resolved satisfactorily by the provisions of the Act: more stringent controls of air pollution by motor vehicles, and tax credits or accelerated amortization benefits to encourage the construction of air pollution control systems.

Motor vehicles

House bills 1291 and 1292 referred to the Highway Safety Committee addressed themselves to the emission control devices installed by manufacturers. During hearings in September, 1969, Wesley E. Gilbertson, Deputy Secretary for Environmental Control of the State of Pennsylvania, claimed his State's motor vehicle inspection system has been called most practical and effective for checking maintenance of such devices. He endorsed the House bills which would: (1) authorize HEW to evaluate motor vehicle emission control programs and permit an Air Pollution Commission to make recommendations to the Secretary of Revenue concerning standards for performance and specifications for such systems; (2) amend the Vehicle Code to incorporate inspection of control devices in the regular State safety automobile inspection on the basis of the standards adopted by the Secretary of Revenue; and (3) make removing of control devices unlawful.

Since Section 104 of the Air Quality Act, providing for research in air pollution resulting from fuel combustion, had expired, and a one-year extension was needed, the House and the Senate, on November 25, 1969, adopted a conference report on a bill (S. 2276--House Rep. 91-690) to authorize $45 million for fiscal 1970 for such purposes.

On July 8 the Senate had voted to authorize $90 million for this program. On September 4 the House amended the Senate bill to provide $18.7 million, arguing that there was no need to exceed the Administration's budget request for the same amount. The $45 million compromise, according to Sen. Edmund S. Muskie, was to be interpreted by the Secretary of HEW as a rejection of an insufficient budget request, and an invitation to that agency to present a comprehensive proposal for a development program in alternate propulsion for automobiles. The compromise appropriation increased 1970 appropriations for the National Air Pollution Control Administration to $116.9 million.

The Subcommittee on Public Health and Welfare, of the House Interstate and Foreign Commerce Committee, headed by Rep. John Jarman held hearings on December 8 and 9 on H.R. 12934, sponsored by Rep. Paul G. Rogers and other bills to extend the Clean Air Act for fiscal years 1971-73. The principal bill would provide authorizations for the NAPCA of $100 million for FY 1971, $125 million for FY 1972, and $150 million in FY 1973. Additional authorizations of $25 million, $35 million and $50 million, respectively, would be provided for Section 104 of the bill for research relating to fuels and vehicles.

Testimony by Dr. Jesse L. Steinfeld, Acting Surgeon-General, U.S. Public Health Service, endored extension of the Act, but proposed two specific modifications:

1. that all mass-produced vehicles comply with national control standards;

2. that import licences be denied to all foreign cars which did not comply with U.S. emission standards.

Dr. John T. Middleton, Commissioner of NAPCA, quoted the results of a study carried out on rental cars which indicated that a very large percentage of mass-produced cars did not comply with emission standards of prototype vehicles. It demonstrated that failure to meet emission standards is not only a matter of proper maintenance, as the automobile makers claimed, but a result of actual production.

Representatives of the automobile manufacturers emphasized that no satisfactory substitute for the internal combustion engine has been found, to date in terms of economy or operational efficiency.

Dr. Paul Chenea of General Motors Corporation, in endorsing continued use of the internal combustion engine, said that 1970 models emitted approximately 70% fewer hydrocarbons than did the uncontrolled cars in 1960, and that the expected reduction in 1971 would be 80%. By 1975 estimated hydrocarbon emissions would be 95% less, and carbon monoxide, 85% less than in 1960. Representatives of the Ford Motor Company also stated that production of a low-emission internal combustion engine could be achieved sooner than for any other engine.

Amortization benefits and tax credits

Almost 40 bills were introduced in the House and Senate calling for accelerated amortization for income tax purposes of the cost of abatement facilities, or for a tax credit for expenditures incurred in the construction of such facilities. Presidential recognition of Congressional concern in this area came in the form of sec. 704 of the Tax Reform Act of 1969 (P.L. 91-172).

This provision was designed to encourage investments in air and water pollution control equipment and hopefully would minimize the effect of repeal of the 7% investment tax credit for purchases of business equipment.

Amortization would be allowed only on the proportion of equipment costs attributable to the first 15 years of its normal service life, involving pollution control facilities certified as such by appropriate State and Federal agencies, which are completed or purchased before January 1, 1975. The section does not apply to plants which diffuse but do not abate pollution, or to facilities which make a profit through recovery of wastes or other means connected with their operation.

During its progress through Congressional debate the tax revision bill generally found substantial support in both the House and the Senate, but encountered opposition to Amendment 389 introduced by Sen. Albert Gore which attempted to eliminate "new loopholes created in the name of tax incentives", including the accelerated 5-year write-off for pollution control facilities. "Many of these facilities have a useful life of as long as 50 years," the Senator stated. "A five-year write-off for such a facility is the same as granting a 20% investment credit to

the corporation for that facility. This action is especially unjustified when we are in the same bill repealing the 7% investment credit...there is no justification for creating this new loophole."

However, proponents of the bill echoed Sen. Randolph's statement,

> Until a better method of stimulating needed private investment and Government assistance to private industry is achieved, the investment credit represents the best-known technique. The revenue loss entailed in this approach will be offset many times by the reduction in other public investments to counteract environmental degradation.

Additional bills were pending in both House and Senate at the end of 1969 concerning changes in tax concessions, as were bills dealing with stricter standards for automobile emissions. Debate on these is expected when the provisions of the Air Quality Act are reviewed again this year, as the Act's authorizations expire with fiscal year 1970.

Alaska

Two major problems focused Congressional attention on Alaska is environment in the 1st session of the 91st Congress. One of them, the century-old controversy over possessory rights of Alaskan natives to land they have occupied for thousands of years, involved the State of Alaska, the U.S. Department of the Interior, and the Congress. The other, of recent origin, involved the construction of a pipeline to transport oil from the new developments on the State's North slope.

Alaskan Native Land Claims

The United States purchase of Alaska did not include the land itself, but only its right to tax and to govern. The Government recognized at that time, in accordance with long-standing Federal Policy and Supreme Court precedent, that the land belonged to the original occupants--the native Eskimos, Indians and Aleuts. By the Organic Act of 1884, Congress established a territorial government and acknowledged the natives' rights to the land, stating: "The Indians ... shall not be disturbed in the possession of any lands actually in their use or occupancy or now claimed by them."

Congress, however, postponed the matter of conveying title to the Natives, and still has not done so. Until the Statehood Act of 1958, there was no great threat to the Native land rights. In that Act, Congress provided that the "State and its people do agree and declare that they forever disclaim all right and title ... to any lands or other property (including fishing rights), the right or title to which may

be held by any Indians, Eskimos, or Aleuts." But in the same Act, Congress granted to the State the right to select 103 million acres of land from the public domain, which at that time made up almost 99 percent of the total area of Alaska.

Subsequently, the State selected lands clearly used and occupied by native villages, and proceeded to claim, under the Statehood Act, royalties from Federal oil and gas leases on the native lands. The natives protested; in 1962 they organized their own newspaper to voice their aspirations and protect their interest, and in 1966 formed the statewide Alaska Federation of Natives.

The conflict was heightened by the large-scale oil strike on the North Slope on land the State had claimed from Eskimos at Barrow. In January 1969, Secretary Udall issued Public Land Order 4582, which said, in part: "This action will give opportunity for Congress to consider how the legislative commitment that the Natives shall not be disturbed in their traditional use and occupancy of the lands in Alaska should be implemented."

The Committee on Interior and Insular Affairs in both the House and the Senate considered bills related to this problem, on which further action was expected in 1970. S. 1830, introduced by Senator Henry M. Jackson on April 15, 1969, proposed creation of an Alaskan Native Corporation and granting to it a cash payment of $100 million, plus 10 percent of the income from leasing and sale of minerals from Federal lands for 10 years. Each native village would be given land equivalent to one township, or a total of 5 million acres. A later amendment

doubled the size of the land acreage to be given the villages. The Administration bill, H.R. 13142, was introduced on July 18, 1969. Hearings were held by both Houses, some of which were in the field.

Secretary Hickel, in hearings before the Senate Committee, proposed that the natives receive a total $500 million over a period of 10 years, but no royalties. As a compromise measure, Senator Gravel introduced S. 3041, which would give the natives $100 million the first year, $50 million each year for the next 8 years, 40 million acres of land, and a perpetual 2 percent royalty. Other compromises were also considered. Action was expected to be continued in 1970.

Alaska Pipeline

The proposal by Trans-Alaska Pipeline System (TAPS) to construct an 800-mile pipeline across Alaska generated considerable conflict and concern. Conservationists were concerned about possible damage to the Arctic's fragile environment, and the Alaska Natives were concerned about their unsettled land claims that cover much of the area through which the pipeline would be built.

Congress and the Department of the Interior continued to work toward a solution to the highly complex problem which developed after the discovery of huge oil fields at Prudhoe Bay in July 1968. On January 17, 1969, Secretary Udall issued Public Land Order 4582, which "froze" Alaskan lands under his jurisdiction until January 1, 1971. This action was taken to give Congress an opportunity to act on the Alaska Native land claims (S. 1830) before conflicts increased and before the oil problem became more complicated. The Public Land Order would also delay the granting of necessary permits to build the TAPS pipeline.

The Senate Interior Committee held hearings on August 12 and September 9, 1969 to investigate dangers related to the construction of the proposed pipeline.

Education and Public Information

The quality of the environment must ultimately depend on individual behavior, for no program designed to restore and enhance man's surroundings can Hope to succeed without the cooperation and support of the individual. The creation of such an attitude, in turn, requires an appreciation of the interaction between man and his surroundings, and is seen as a proper role for education and public information.

At the same time, effective management of the environment will require a knowledge of ecology and ecological principles. The education and training of university students in this broad area necessarily involves an interdisciplinary approach--one that has received increased attention by universities in the past few years. Congressional appreciation of the role of education in the environment was evidenced in the first session of the 91st Congress by bills aimed at all levels of education.

Environmental Quality Education Act

H.R. 14753 and S. 3151, Environmental Quality Education Act proposed an educational program to educate Americans, especially schoolchildren, about the entire range of environmental problems. It authorizes the following types of activities:

1. Development of environmental education courses for elementary, secondary, college, and adult education programs.
2. Initiation of pilot demonstration projects to test such new curricula.

3. Provision for evaluating the effectiveness of these projects and disseminating significant results and curricular materials for use throughout the country.

4. Training in environmental quality education for schoolteachers, other educational and public service personnel, and community and business leaders.

5. Creation of community education programs on environmental quality; and

6. Appointment of an Advisory Committee on Environmental Quality Education by the Secretary of the Department of Health, Education, and Welfare to aid in implementing provisions of the act.

In December, the House Subcommittee on Science, Research, and Development published a survey entitled "Environmental Science Centers at Institutions of Higher Education." Prepared by the Environmental Policy Division of LRS, it sought a current picture of interdisciplinary and inter-institutional environmental science centers in existence thoughout the nation. The purpose of the report was to guide congressional activities connected with the support of Federal agencies that provide funding for programs at colleges and universities, and to gain a perspective on the future production of manpower in the broad area of environmental science. Data for the survey were obtained by means of a questionnaire sent to all accredited colleges and universities throughout the nation.

Drawing on the response obtained from this questionnaire while the survey was in preparation, and following discussions on selected campuses with students, faculty and administrators, the Office of Science and Technology prepared a report for the President's Environmental

Quality Council entitled, "The Universities and Environmental Quality--Commitment to Problem Focused Education". The report sets two criteria by which the authors judge the real or potential success of a program:

1. Substantial or complete control of the faculity reward structure and

2. Freedom to be innovative in introducing course material, educational programs, work study programs, and curriculum requirements for degrees.

The report recommends Federal assistance in the formation of "schoolsof the human environment" at colleges and universities that meet these criteria. An ad hoc group drawn from the interested mission agencies and the National Science Foundation and guided by the President's Environmental Quality Council would be responsible for the initial funding.

Environmental Reclamation Education Act

S. 3237 (Mr. Goodell et al., Dec. 11, 1969) is called the "Environmental Reclamation Education Act of 1969." The purpose of this Act, as defined in the introductory statement by Sen. Goodell is to:

> embark upon a national effort to create a citizenry that is sensitive and alert to the need for developing informed attitudes of concern for environmental quality... sow the seeds of such awareness throughout the entire continuum of American education..and... marshal the entire community in the effort.

Title I of the Act authorizes the Secretary of HEW to develop a national environmental-ecological education program from the preschool to graduate level funded for 3 years, with a recommended authorization of $37 million.

The program would include curriculum development, teacher training, adult education courses, community action programs and educational television.

It also authorizes the establishment of a nationwide system of regional ecological-environmental education centers which would develop, collect and disseminate important materials and data to the general public.

To promote more responsible management of technological advances consistent with national environmental goals, Title II of the Act creates a National Advisory Commission on Technology and the Environment to:

> investigate, analyze and recommend methods to identify deficiencies in the existing processes of governmental assessment and decision making, as they relate to the continuing evolution and impact of technology upon the quality of our environment.

Action on these measures was pending at the end of the first session.

Forestry

A sharp rise in the price of lumber and plywood early in 1969 brought Congressional attention on the economic aspects of forestry. Hearings by committees in both the House and Senate investigated the crisis, which resulted in the introduction of a number of proposals to increase the supply of timber.

Timber supply

Lumber and plywood price increases were triggered, not so much by shortages of sawtimber itself, but by an acute shortage of manufactured timber products. In spite of strong demand for lumber, bad weather, boxcar tie-ups, labor and other problems, combined to reduce the log supply and hamper lumber distribution. Prices of softwood lumber and plywood peaked in February and March, then began falling off after the expected housing demand failed to materialize due to increases in interest rates. Sanded plywood panels, for example, reached a record high in February of $144 per thousand square feet. By mid-September the price had dropped to $62. Government reaction to the lumber crisis came early in the year. On January 1, 1969 further restrictions on log exports from federal timberlands went into effect. In March, both the House and the Senate held hearings.

The Subcommittee on Housing and Urban Affairs of the Senate Committee on Banking and Currency held hearings on March 19, 20 and 21, 1969. The Committee on Banking and Currency in the House of Representatives held hearings from March 24 through 28, 1969. On March 10th the President announced the appointment of a special task force to study the problem.

Congressman McMillan introduced H.R. 10344, the proposed National Timber Supply Act of 1969, on April 21st; about 30 related bills were introduced, with some 60 sponsors. The purpose of the proposed Act was to increase timber yield rates on national forest timberlands by stimulating efficient development and improved management through the use of a fund consisting of receipts from sale of timber from the National Forests. The Subcommittee on Forestry of the House Committee on Agriculture held hearings on May 21-23, with approximately 35 witnesses testifying. As an outgrowth of the hearings, Congressman McMillan introduced a substitute bill, H.R. 12025, on June 10th. This bill, known as the "National Forest Timber Conservation and Management Act of 1969," was reported (H. Rept. 91-655) by the House Committee on Agriculture on November 18th, and sent to the Rules Committee where it awaited further action at the end of the first session.

As stated in the bill, the purpose of H.R. 12025 is to provide for more efficient development and improved management of national forest commercial forest land and to establish a high timber yield fund from receipts derived from the sales of timber and other products.

On October 21st the Senate Agriculture and Forestry Committee held hearings on S. 1832, the counterpart to H.R. 12025. Findings developed during hearings were summarized in House Report No. 91-655, which stated in part:

> The Congress hereby finds that in order to meet increasing national demands for lumber and other wood products, including that needed for home construction, it is necessary to increase substantially the timber yield from the commercial forest land of the Nation

> that in the national forests; that, through intensified development and management, such land is capable of producing a substantially increased yield; that the national forests are the source of a substantial part of the present and future supply of the timber within the policy of the Congress stated in the Multiple-Use-Sustained Yield Act approved on June 12, 1960; that increased annual harvests from national forest commercial forest land may be permitted under sound conservation principles on the basis of short-range accomplishments so long as long-range goals are assured; and that to accomplish increased annual harvest it is necessary to provide a reliable and adequate source of funds.

Proponents of the National Forest Timber Conservation and Management Act took the position that it would help to achieve the National housing goal of 2.6 million new units annually, set by the Housing and Urban Development Act of 1968; housing starts in 1969 were far short of this goal. To this was added the urgency of the need for new housing as expressed in the Kerner Commission report, which indicated that slum housing contributed to disorders in urban centers.

The report which accompanied H.R. 12025 stated:

> These conditions are a disgrace to this Nation, degrading to our citizens, costly to our economy, and to our citizens, costly to our economy, and extremely dangerous to the health of the country. They cannot be permitted to continue to exist. To solve the situation the materials for construction must be provided over a period of years which requires a long-range program. This is an intent of H.R. 12025.

Many conservation organizations opposed the bill on grounds that it might endanger wilderness and esthetic values. Congressman Teague of California expressed a dissenting view on the bill, pointing to the possibility of developing substitutes for wood, the rise of

exports the decline in lumber prices later in the year, and the nearly static record of lumber consumption since 1905. Others claimed that although lumber prices declined sharply after the housing boom failed to materialize in 1969, the increased demand would recur, to create shortages and high prices.

Regardless of the outcome of H.R. 12025, some observers considered it the most important piece of forestry legislation to come before Congress in this decade, ranking in importance with the Multiple Use-Sustained Yield Act of 1960.

Forest Fire

Bills to provide for the establishment and administration of a National fire disaster control fund were introduced during the year, but had not been acted upon by the end of the first session.

Congressman Johnson of California introduced H.R. 10642, and Senator Eastland introduced an identical bill, S. 2076, to authorize a $10,000,000 emergency fund to be used by the Secretary of Agriculture to protect lives and property from disaster fires and to protect valuable resources, including timber, wildlife and soil. The bills also provide for the creation of a National Wildlife Disaster Board, which would be responsible for establishing policy and criteria for eligibility for allocation of the fund, as well as making recommendations to the Secretary of Agriculture for disbursing the funds.

International Cooperation

In response to recognition of the world-wide scope of environmental issues, several resolutions providing for U.S. participation in the international effort were introduced in the first session of the 91st Congress.

Support for the International Biological Program was the subject of H.J.Res. 589, which passed the House on November 12, 1969, and was referred to the Senate Committee on Education and Labor. The resolution called on Federal departments and agencies, as well as individuals and organizations, both public and private, to support and cooperate with the IBP and the activities and goals of the United States National Committee and the Interagency Committee as a matter of first priority.

A study of the ecological effects of chemical agents used in the South Vietnam was proposed in H.J.Res. 953, which would provide for the establishment of a joint commission, to be composed of the United States, the Republic of South Vietnam, and the International Commission for Supervision and Control in Vietnam. The resolution was referred to the House Committee on Foreign Affairs.

An International Conference on the Human Environment was proposed in H.Res. 341 and S.Res. 166. They requested the President to invite other interested nations to join the U.S. in a conference for the purpose of dealing, through international cooperation, with the environmental problems of man. No action was taken on the resolution in the 1st session.

The United Nations Conference on the Human Environment, scheduled for 1972, was a subject of Congressional interest in the first session. S.J. Res. 156 provided for establishment of an interagency commission to make necessary plans for participation in that conference, as well as in other international conferences and meetings relating to the human environment. U.S. participation in the conference was provided for in S.Res. 179, approved by the Senate on November 10, 1969. Hearings on the House companion measure, H.Res. 523, were held on November 13, 1969 before the Subcommittee on International Organizations and Movements of the Committee on Foreign Affairs.

Marine and Estuaries

The 91st Congress was deeply involved with protection and management of the Nation's marine and coastal zones. Two major studies were completed and a third one implemented during the first session. Five bills were introduced based on the findings and recommendations of these studies, which had been commissioned by the Congress and performed by Executive agencies.

Commission on Marine Sciences, Engineering and Resources

In P.L. 89-454, Congress directed the President to establish this Commission to study the entire field of marine science and to recommend a National oceanographic program. The Commission made its report on January 11, 1969, recommending creation of a National Oceanographic and Atmospheric Agency (NOAA) which would administer most Federal civilian oceanographic programs.1/ A budget recommendation included $1 billion over a ten-year period for coastal zone management, of which $110 million was proposed to help the States purchase a million acres of wetlands.

Federal Water Pollution Control Administration

The Clean Waters Restoration Act of 1966 (P.L. 89-753) instructed the Department of the Interior to study the problems of estuarine pollution and to recommend a National program of estuarine management. The

---

1/U.S. Commission on Marine Science, Engineering and Resources. Our Nation and the Sea. Washington, U.S. Govt. Print. Off., Jan. 9, 1969.

agency was also directed to determine the state of knowledge and ecological, demographic, and socio-economic trends in estuarine areas and to develop a program of needed research and study. This report was sent to the Congress in November 1969.1/

The management program recommended cooperative Federal-State efforts in establishing a National policy with program responsibility retained within the Interior Department. The program would provide for Federal grants for planning as well as for land acquisitions.

Bureau of Sports Fisheries and Wildlife

The National Estuarine Protection Act (P.L. 90-454) of 1968 provided for a study to determine whether a program of land acquisition should be established to protect specific estuarine areas of special value. The agency was to compile an inventory of the Nation's estuaries, utilizing data developed by the FWPCA during its study. This report is due in January 1970.

Legislation Action in Marine and Estuary Affairs

Five bills based on the above reports were introduced in the first session. At the end of the session, none had been enacted.

S. 3183, introduced by Senators Boggs, Randolph and Cooper, was referred to the Senate Public Works Committee. Its purpose was the

---

1/U.S. Dept. of the Interior. The National Estuarine Pollution Study. Report to the Congress by the Federal Water Pollution Control Administration. Washington, Nov. 3, 1969. (3 vol.)

implementation of recommendations contained in the FWPCA estuarine pollution study. It would authorize the Department of the Interior to make matching grants to States for development of the land and water resources of estuaries and coastal zones, but would prohibit the use of Federal grants for land acquisition. It would require that particiapting states give the power of eminent domain and zoning authority to agencies managing the plans.

S. 2802, introduced August 8 by Senators Magnuson and Hart, was referred to the Commerce Committee. It provides for the establishment of a National coastal zone management policy. It follows closely the recommendations of the Marine Commission requiring establishment of State agencies with significant powers to control coastal development and to authorize purchase of land. An annual authorization of $75 million was proposed. Responsibility for the program would be assigned to the National Council on Marine Resources and Engineering Development, an advisory group in the Executive Office of the President.

S. 2841, introduced by Senator Hollings and referred to the Commerce Committee, proposed the establishment of NOAA to administer the program of S. 2802.

S. 3354, introduced by Senator Jackson on January 29 and referred to the Committee on Interior and Insular Affairs, proposed the establishment of a National land use policy. The program proposed in S. 3354 is similar to that of S. 2802, except that the Water Resources Council would be the responsible agency.

H.R. 14845, a bill similar to S. 3183, was introduced by Congressman George H. Fallon and referred to the Public Works Committee, which conducted a hearing on December 3. No report had been made at the end of the session.

H.R. 1327, was referred to the Merchant Marine and Fisheries Committee. It proposed the establishment of a National Oceanographic and Atmospheric Agency. No report had been made at the end of the first session.

Mines and Minerals

In mines and minerals, the environmental issue of paramount interest in recent years--control of environmental damage from surface mining--did not receive action in the first session of the 91st Congress, although a number of bills on the subject were introduced. Legislation by States imposing controls over mining operations substantially reduced the need for Federal action in this area.

The most significant mineral resource legislation, from the standpoint of environment, was S. 719, the Mining and Minerals Policy Act, which passed the Senate on September 5, 1969. Hearings were held on the measure by the House Subcommittee on Mines and Mining of the Committee on Interior and Insular Affairs on November 5, 6, and 7, 1969.

The purpose of S. 719 is the establishment of a national policy to promote the wise and efficient use of mineral resources, and the assignment of responsibility for implementing such a policy to the Secretary of the Interior. It was designed to coordinate more effectively the various phases of mineral policy, now scattered among several departments and agencies in the Executive Branch.

During hearings before the Subcommittee on Minerals, Materials and Fuels of the Senate Committee on Interior and Insular Affairs, over 30 witnesses appeared or submitted statements in support of the bill. The Office of Emergency Preparedness witness questioned placing sole authority in the Secretary of the Interior, citing the importance of minerals in foreign policy and the consequent interest of the Secretary of State.

In reporting the bill to the Senate, several perfecting amendments were accepted by the Committee. The report (S. Rept. 91-390) stressed the need for a coordinated policy, especially in the light of growing world population and rising standards of living. With respect to the environment, the report stated:

> The Nation has become painfully aware of our deteriorating environment. The mining industry is also aware of the problem and has developed practical solutions for many of the problems. But, as further environmental quality improvement is sought, the technical difficulties and the cost of gaining each new increment of quality, greatly increases the costs of operation and may make the difference between feasibility and infeasibility in the mine's economic picture. A national mining and minerals policy will help to prevent the promulgation of inconsistent regulations and the adoption of counter-productive policies that tend to thwart these national objectives.
>
> Research can be particularly beneficial in assisting the mining industry to cope with the many new requirements that our increased concern over environmental quality places upon mine operators. The Federal Government should engage in long-range research programs which will provide the technology necessary for private industry to implement practices designed to improve the quality of our environment. It should establish and maintain policies and programs which supply the needed trained specialists, and publish and disseminate data and technical information relevant to environmental quality matters.
>
> Before the mining industry can be expected to deal effectively with the new demands of environmental quality concerns and remain economically viable, the industry must have the necessary tools. These tools include trained specialists, the results of successful research in improved mining, beneficiation, and waste disposal practices, and governmental policies which take into account the increased costs involved.

Parks and Recreation

The contribution which parks, open space, trails and wild rivers make toward a healthful, pleasant environment was increasingly appreciated in the first session of the 91st Congress. Pressures which would alter and, in many cases, destroy the lands and waters which have been set apart for aesthetic use also increased.

The Everglades Problem

Everglades National Park received wide publicity in 1969 because of threats to its existence, including an uncertain supply of essential water, and the proposed construction of a mammoth jetport near the Park. The Senate Interior and Insular Affairs Committee conducted informational hearings on these problems on June 3 and 11. Senator Jackson offered this introduction:

> The purpose of this morning's hearing is to receive testimony from Federal and State officials on the water supply, the environmental, and the jet airport problems currently being experienced at the Everglades National Park.
>
> As I see it, the committee's interest in this matter is twofold: First, to receive an up-to-date status report on the alternatives, the planning and the negotiations which are now underway, and second, to review the process of Federal involvement and Federal decisionmaking which has contributed to the conflicting patterns of land and water use which now threaten the continued life of the park.
>
> Finding a satisfactory resolution to the problems faced by the Everglades National Park is important because the many unique recreational, scenic, wildlife, and scientific values found in the park are not found anywhere else on earth. We cannot allow these values to be destroyed. Congress decided to protect them in 1934, when the park was authorized, and we must see that they are preserved for the enjoyment of present and future generations.
>
> The Everglades National Park and the problems we will be discussing today are of importance for still another reason. They provide a classic case history of what is happening all across the Nation under the pressures of population expansion, and the development and applications of new technology. If we cannot learn to deal with the problems presented here today, there is little hope that we will be able to deal with them in the future. I am hopeful that the representatives of the administration and the State of Florida who are here today will be able to present us with some alternatives to the patterns of conflict which are emerging. 1/

1/ 91st Cong., 1st session. Senate. Everglades National Park. Hearings on...water supply, the environmental, and jet airport problems...Washington. June 3 and 11, 1969, p. 1.

Congressional and citizen concern for the fate of the Everglades eventually resulted in administrative action reducing the jetport threat.

Comments by Interior Under Secretary Russell Train traced the environmental deterioration of the Park which resulting from disturbances of the natural water patterns in South and Central Florida by the Corps of Engineers:

> The Everglades National Park consists of 1.4 million acres of a unique and complicated ecosystem, lying at the southernmost tip of Florida. It was authorized by the Congress in 1934 to preserve forever a semitropical aquatic wilderness, containing within its boundaries hundreds of species of plants, fish, animals, and birds. Twenty-two species of fish and wildlife are on the rare and endangered list.
>
> As I mentioned earlier, the Everglades is essentially an aquatic park—not a standing body of water, but a slow, flat sheet of water that gradually moves down from Lake Okeechobee across the sawgrass of the landward portion of the park and the Big Cypress Swamp, through the mangrove swamps of the estuaries and into the sea.
>
> The drop in elevation from Lake Okeechobee to the sea, a distance of some 100 miles, is only 15 feet. Consequently, the water drops less than two inches per mile, traveling an almost imperceptible rate of 1,000 to 1,500 feet per day. In the days before the Corps of Engineers Central and Southern Flood Control project, the water flowed freely into the park; that portion from the Big Cypress Swamp still does.
>
> The supply in the Everglades had already been somewhat diminished by upland canal diversions. But the large remaining uncontrolled tributary area was not shut off until the construction of a levee in late 1962, squarely across the drainageway blocking all supply into the Shark River Slough, the principal wetland region of the park.
>
> In 1948, the Department of the Interior warned that the massive flood control project then in its planning stages would affect the park adversely. To allay these fears the Corps of Engineers gave assurances in its report to the Congress that the project would not only benefit the park but would also assist in restoring and maintaining natural conditions.
>
> However, natural conditions have continued to deteriorate and disagreements between the Park Service and the corps have continued since 1948, reaching a new level shortly before construction of the levee in 1962 just north of the park.
>
> Shortages were being felt in 1961 and the Park Service sought assurances for an adequate water supply from the Corps of Engineers because the new levee would block the normal overland flow. Despite these requests, the levee was constructed without assurances, even though one of the stated purposes of Conservation Area 3, just above the levee, was to store water for release into Everglades National Park.
>
> Historically, water had continued to flow into the park months after the seasonal rainfall ended, but now, the rainfall and the flow ended together. For the 2 years following 1962 no water was released to the park and in 4 of the 5 years following, lowered water tables in the park caused dramatic changes in the plant communities. Marsh plants

were replaced by trees and shrubs over considerable acreage in the park and the trend apparently is continuing.

Despite repeated requests by Interior for water, the corps claimed it had no responsibility for delivery of water from the project except for flood control purposes. During this same period, water was dumped into the sea and the plight of the drought-stricken park aroused the public.

In 1965, the flood control district tried a schedule of releases, which proved ineffective. In 1966, the corps developed and put into effect an interim schedule based on levels in Lake Okeechobee. The schedule is arbitrary and does not simulate a natural cycle period. However, both Secretary of the Army Resor and I have begun discussions which may hopefully lead to a satisfactory agreement. 1/

Senate Report 91-528, issued by the Committee on Appropriations on November 10, 1969 referred to the Central and Southern Florida water supply situation, stating:

> The committee recognizes the Everglades National Park as a legitimate water user and the maintenance of an adequate water supply to the park is essential to its unique ecosystem and all efforts must be made to provide the 315,000 acre-feet of water annually to the park, as provided for in paragraph 127b(2) of House Document 369, 90th Congress, second session. The 1968 modification is designed to provide additional capacity for storing water to further alleviate water shortages in the park and southern Florida.
>
> ...
>
> It is the committee's belief that every effort must be made to furnish an adequate water supply to the Everglades National Park. The recommended modification of the plan is expected to meet the water needs of the area until the year 2000. The project document sets forth the criteria for furnishing water to the park, based on projections of future demands for water in southern Florida. The committee desires that the criteria established in paragraph 127b(2) of House Document 369 for the furnishing of water to the park be adhered to upon completion of the project. The estimated benefits, costs, and cost sharing for the latest modification to the Federal project were based on the projections of future demands set forth in the report. In view of the local interests' participaton in the construction and in the operation and maintenance of the project through a millage levy, it is the opinion of the committee that any adversity in the water supply to meet the projected demands, as set forth in the report, must be equally shared by all. Such adversity, however, in accordance with all available data, should be very rare indeed (estimated to occur on

1/Ibid., pp. 5-6.

average of once in 18 years), coupled with the understanding that the Engineers will review the water resources needs in central and southern Florida by 1980 to determine whether further modifications of the project are warranted, and give further assurances of maintaining the essential water supply to insure the protection of the park's ecosystem.

In the event that the demands for water in southern Florida exceed the projections in the report prior to the time that additional sources of supply are provided, the park should not be required to share adversity to a greater extent than contemplated in the report.

Accordingly, the committee desires that the State of Florida, the Department of the Interior, and the Department of the Army complete as soon as possible their current negotiations in developing an operating agreement which will insure deliveries of water to the park whenever adequate water is available to meet park purposes, as stated in paragraph 127b of the project report. The committee further desires that these agencies continue their negotiations to develop operating regulations for the sharing of adversity in water-short years.

Such negotiations should be based on the following criteria. The water available during periods of drought will be shared to meet the stated project purposes. Until the water requirements in southern Florida reach the estimate of future demands, estimated in the project document, the share of water to be made available to the park during such times will be no less than the percentage of the total water needs for all water users in the area for any particular month which the park requirement for that month bears to the total needs for all water users in the area. The amount of water required for the park is recognized as that stated in paragraph 127b(2) of the project report and further detailed in the National Park Service letter of October 20, 1967, to the Director of Civil Works, Office of the Chief of Engineers, Department of the Army, a copy of which is contained in appendix K, pages 268–274, of the project report described above. In the event the water requirements in southern Florida exceed the estimate in the project document prior to the development of an additional source of water supply, the park's share of the available supply of water will not be diminished as a result of any demands for water in southern Florida exceeding those contemplated in the project document. 1/

1/91st Cong., 1st session. Public Works for Water Pollution Control and Power Development, and Atomic Energy Commission Appropriation Bill, 1970. November 10, 1969, pp. 24-25. (Report No. 91-528).

During Senate debate on the Public Works appropriation bill, an amendment was introduced to withhold expenditure of appropriations for the Central and Southern Florida flood control project until June 1, 1970.[1] The purpose of the amendment was to impress upon the Corps the desire of the Congress for an assured water supply for the Park. The amendment failed, leaving uncertain the supply of water to the Park in the near future.

National Parks Legislation:

Legislation was enacted to add one new unit to the National Park System--the Florissant Fossil Beds National Monument, in Colorado. The Act authorized acquisition by the Secretary of the Interior of some 6,000 acres comprising a portion of the fossil beds. Senator Dominick, a co-sponsor of the bill, stated:

> This site, in terms of numbers of fossils collected ranks second only to the Baltic Amber site. Almost all fossil butterflies have come from this site. There is no other locality in all the world where so many species of one time have been preserved. [2]

Strong support from both conservationists and scientists was developed in hearings on the measure. The necessity for prompt action by Congress was stressed because of real estate development in the area. The House Interior Committee's report (91-411) stated:

1/Congressional Record (Daily Summary), Nov. 12, 1969. pp. S14212-3.
2/91st Cong., 1st sess., Senate. Florissant Fossile Beds National Monument. Hearings before The Subcommittee on Parks and Recreation of the Committee on Interim and Insular Affairs on S. 912. Colorado Springs, Colo., May 29, 1969, p. 7.

> For thousands of centuries, these tiny remnants of antiquity have survived without any special governmental protection. Even since the discovery of this ancient lakebed about 100 years ago, collectors have visited the area without causing wanton destruction of the values. On the contrary, although some 60,000 speciments representing approximately 1,000 different species of life are known to have been collected, most of the ancient lakebeds remain relatively undisturbed and unexposed; hence, its actual values remain largely intact, but unknown.
>
> While passive, nondisruptive activities will probably cause no harm to the buried specimens, more aggressive activities could cause immeasurable damage. One bulldozer can easily destroy in a matter of a few days that which nature has preserved and protected for millions of years. There is some evidence that the destruction of a significant portion of this proposed national monument is imminent notwithstanding the obvious public interest and demonstrated congressional interest in protecting this area. The flagrant disregard of the public interest should not be tolerated when no appreciable, permanent harm will be sustained by a temporary delay until a final decision can be made. The public should not be compelled to suffer at the hands of a merciless exploiter. 1/

The Public Law (91-60) creating the Monument was signed August 20, 1969; it authorized acquisition of up to 6,000 acres, and the appropriation of up to $3,727,000.

Two other bills, environmentally significant in that they authorized additional land acquisition for existing parks, became law. One, P.L. 91-42, authorized appropriation of sums necessary to acquire lands for Padre Island National Seashore, Texas. The other P.L. 91-88, authorized appropriations of up to $700,200 to acquire certain private lands for addition to Everglades National Park.

1/91st Cong., 1st Session. House. Report 91-411.

Other bills relating to parks and recreation which received Congressional attention were:

S. 853, to establish the Sawtooth National Recreation Area in the State of Idaho. Passed Senate, July 2, 1969, and referred to the House of Representatives, where hearings were held before the Committee on Interior and Insular Affairs.

S. 855, to establish the Buffalo National River in the State of Arkansas. Passed Senate, September 3, 1969, and referred to the House Committee on Interior and Insular Affairs.

S. 2315, to restore the golden eagle passport program, due to expire in March 1970, and increase the annual fee from $7 to $10. Passed Senate September 24, 1969, and referred to House Committee on Interior and Insular Affairs.

S. 1708, the Federal Lands for Parks and Recreation Act, to enable States and their political subdivisions to acquire surplus Federal real property suitable for use as parks and recreation areas. Passed Senate June 26, 1969, and referred to the House Committee on Interior and Insular Affairs.

Pesticides

Public concern with the use and side effects of pesticides, dating from the publication of Rachel Carson's Silent Spring in 1962, has been reflected by broadened congressional interst in the past few years. Traditionally an area of concern for the Agriculture Committees of both Houses, the use and effects of pesticides was reviewed by both the House Government Operations and the Senate Commerce Committees during the 91st Congress.[1/2/]

The hearings conducted by the Senate Commerce Subcommittee on Energy, Natural Resources and the Environment concerned the detection of pesticides in Great Lakes fish catches. No report had been issued at the end of the session.

The House Subcommittee on Intergovernmental Relations of the Committee on Government Operations dealt with shortcomings which the Government Accounting Office found in the administration of the Federal Insecticide, Fungicide, and Rodenticide Act. The GAO report was included in the printed hearings.

1/91st Cong., 1st sess. House. Deficiencies in administration of Federal Insecticide, Fungicide, and Rodenticide Act. Hearings before the Subcommittee on Intergovernmental Relations of the Committee on Government Operations. Washington, May 7 and June 24, 1969.

2/91st Cong., 1st sess. Senate. Effects of pesticides on sports and commercial fisheries. Hearings before the Subcommittee on Energy, Natural Resources, and the Environment of the Committee on Commerce. Washington, May 19, 1969. (Serial No. 91-15).

Federal regulation of pesticides

Since 1947, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) has required that all pesticides shipped in interstate commerce be registered with the U.S. Department of Agriculture (USDA). To qualify for registration, a pesticide must be both safe and effective when used as directed. The act provides criminal penalties for the interstate shipment of pesticide products which are unregistered, adulterated or misbranded. Under the act, a pesticide is "misbranded" if its labeling contains false or misleading statements or if it does not bear clearly understandable warning statements adequate if complied with to prevent injury and protect the public. USDA is authorized by the act to initiate court proceedings for seizure of pesticides which violate the act.

A pesticide registration may be canceled at any time, in accordance with procedures specified in the act, if it does not appear that the product or its labeling comply with provisions of the act. A registration may also be canceled if it is not renewed every 5 years. A registration may be suspended immediately if the Secretary of Agriculture determines such action is necessary to prevent an imminent hazard to the public.

The Federal Food, Drug, and Cosmetic Act requires establishment of a tolerance by the Food and Drug Administration (FDA) in the event a registered use of a pesticide will leave a residue on food; in the absence of a tolerance (or an exemption from the tolerance requirement) food containing a pesticide residue is considered adulterated.

Primary responsibility for carrying out provisions of FIFRA is assigned to the Pesticides Regulation Division (PRD), a unit of USDA's Agricultural Research Service (ARS). Within PRD, administrative details and records relating to registration applications and cancellation proceedings are handled by the Registration Branch, although product evaluation staffs are responsible for making final decisions concerning approval of applications or cancellation of registrations.

. . .

GAO criticism of enforcement procedures

In September 1968, the General Accounting Office (GAO) issued a highly critical report concerning enforcement procedures followed by PRD through mid-1967. The report included the following disclosures:

(1) When its inspectors found a potentially hazardous or ineffective product, it was PRD practice to take seizure action against only the quantity of pesticide at the location where the sample was obtained. No action was taken to locate and remove from the market additional quantities of the same product being held for sale at other locations, although FIFRA authorizes access to shipping records for this purpose.

(2) Despite evidence of repeated violations by some shippers, PRD had not initiated a single criminal prosecution for 13 years. Moreover, it had no procedures for determining under what circumstances such action would be taken.

(3) Notices of judgments obtained in actions (primarily seizures) instituted under FIFRA had not been published as required by the act.

Subcommittee investigation

The subcommittee began its investigation shortly after receiving the GAO report. At the same time, the GAO continued work on a second report dealing with PRD's registration of certain products containing lindane. In the second report, issued in February 1969, the GAO found that PRD had continued to register lindane products for use in continuous vaporizers in restaurants and other commercial and industrial establishments for many years, despite repeated objections by the Public Health Service (PHS) and other public and private organizations, without resolving the safety questions involved.

Subcommittee hearings were held on May 7 and June 24, 1969. At the hearings, USDA officials acknowledged the accuracy of the GAO reports and stated that the reports had been helpful. 1/

1/91st Cong., 1st sess. House. Deficiencies in administration of Federal Insecticide, Fungicide, and Rodenticide Act. Eleventh Report by the Committee on Government Operations. Washington, November 13, 1969. pp. 3-4 (H.Rept. 91-637).

The following summary of Federal pesticides regulation and report of investigations was contained in House Report 91-637, issued by the Committee on Government Operations on November 13, 1969:

Findings and Conclusions

1. Until mid-1967, the USDA Pesticides Regulation Division failed almost completely to carry out its responsibility to enforce provisions of the Federal Insecticide, Fungicide, and Rodenticide Act intended to protect the public from hazardous and ineffective pesticide products being marketed in violation of the act.

2. Numerous pesticide products have been approved for registration over objections of the Department of Health, Education, and Welfare as to their safety without compliance with required procedures for resolving such safety questions.

3. The Pesticides Regulation Division has approved pesticide products for uses which it knew or should have known were practically certain to result in illegal adulteration of food.

4. The Pesticides Regulation Division has failed to take adequate precautions to insure that pesticide product labels approved for registration clearly warn users against possible hazards associated with such products.

5. Information available to Federal agencies concerning pesticide poisonings is inadequate and incomplete. The Pesticides Regulation Division has failed to make effective use of even the limited data available.

6. The Pesticides Regulation Division did not take prompt or effective cancellation action in cases where it had reason to believe a registered product might be ineffective or potentially hazardous.

7. The Pesticides Regulation Division has consistently failed to take action to remove potentially hazardous products from marketing channels after cancellation of a pesticide registration or through suspension of a registration.

8. The Pesticides Regulation Division has no procedures for warning purchasers of potentially hazardous pesticide products.

9. The Agricultural Research Service failed to take appropriate precautions against appointment of consultants to positions in which their duties might conflict with the financial interests of their private employer. Facts disclosed by the subcommittee investigation raised a number of serious conflict of interest questions.

The Committee then issued a series of recommendations to strengthen the protection provided by the Pesticides Regulation Division.

The most significant expression of public policy was the announcement late in November that the government had eliminated the use of DDT in all Federal programs except for the control of the Douglas fir tusic moth. Further, notice was given that all other domestic uses of DDT were to be discontinued after 90 days. Major DDT manufacturers appealed that decision under existing regulations, thus postponing the ban on use of DDT.

The proposed reduction in pesticide use came from the President's Environmental Quality Council composed, at that time, of Cabinet officers whose agencies dealt with environmental matters. Their recommendations were based upon a study prepared for the Secretary of Health, Education and Welfare.1/ Emil M. Mrak former Chancellor of the University of California was chairman of the study commission.

1/U.S. Department of Health, Education and Welfare. Report of the Secretary's Commission on Pesticides and their relationship to environmental health. Washington, December 1969.

While stressing past and continuing benefits from the use of pesticides, the report recommended restrictions of persistent (non-degradable) chemicals based on an evaluation of their hazards to human health, availability of efficacious alternative pest control methods, movement in the landscape, and concentration in food chains.

Population

Predictions of a population numbering 300 million Americans within the next 30 years prompted both the President and the Congress in 1969 to call for the creation of a commission to study the probable course of population growth, to estimate the resources that will be needed to meet future needs, and to inquire into the effects of such growth on government institutions. In his Message to the Congress on July 18, 1969, the President pointed to accelerating population growth and recommended the creation of a Commission on Population Growth and the American Future to inquire into, and make recommendations in three specific areas:

> First, *the probable course of population growth, internal migration and related demographic developments between now and the year 2000.*
>
> As much as possible, these projections should be made by regions, states, and metropolitan areas. Because there is an element of uncertainty in such projections, various alternative possibilities should be plotted.

> It is of special importance to note that, beginning in August of 1970, population data by county will become available from the decennial census, which will have been taken in April of that year. By April 1971, computer summaries of first-count data will be available by census tract and an important range of information on income, occupations, education, household composition, and other vital considerations will also be in hand. The Federal government can make better use of such demographic information than it has done in the past, and state governments and other political subdivisions can also use such data to better advantage. The Commission on Population Growth and the American Future will be an appropriate instrument for this important initiative.

Second, *the resources in the public sector of the economy that will be required to deal with the anticipated growth in population.*

The single greatest failure of foresight—at all levels of government—over the past generation has been in areas connected with expanding population. Government and legislatures have frequently failed to appreciate the demands which continued population growth would impose on the public sector. These demands are myriad: they will range from pre-school classrooms to post-doctoral fellowships; from public works which carry water over thousands of miles to highways which carry people and products from region to region; from vest pocket parks in crowded cities to forest preserves and quiet lakes in the countryside. Perhaps especially, such demands will assert themselves in forms that affect the quality of life. The time is at hand for a serious assessment of such needs.

Third, *ways in which population growth may affect the activities of Federal, state and local government.*

In some respects, population growth affects everything that American government does. Yet only occasionally do our governmental units pay sufficient attention to population growth in their own planning. Only occasionally do they consider the serious implications of demographic trends for their present and future activities.

Yet some of the necessary information is at hand and can be made available to all levels of government. Much of the rest will be obtained by the Commission. For such information to be of greatest use, however, it should also be interpreted and analyzed and its implications should be made more evident. It is particularly in this connection that the work of the Commission on Population Growth and the American Future will be as much educational as investigative. The American public and its governing units are not as alert as they should be to these growing challenges. A responsible but insistent voice of reason and foresight is needed. The Commission can provide that voice in the years immediately before us. *

* Weekly Compilation of Presidential Documents. July 21, 1969, pp. 1004-5

Congressional action on bills dealing with the population question included S. 2701, introduced by Senators Mundt and McClellan on July 25, 1969. Hearings were held before the Senate Committee on Government Operations on September 15, and the Senate passed the measure on September 29. In the House of Representatives, a number of bills proposing the establishment of a commission were introduced.1/

As passed by the Senate, S. 2701 established a Commission on Population Growth and the American Future, and required it to conduct an inquiry along the lines called for in the President's message.

The House Subcommitteee on Conservation and Natural Resources of the House Government Operations Committee held hearings on September 15 and 16, 1969 to focus national attention on the effects of population growth on natural resources and the environment. In his opening remarks, Chairman Henry S. Reuss observed: "As our population burgeons beyond its present 200 million and as each of us grows more affluent, man's competition with nature becomes more critical."

Twelve witnesses presented testimony.

Preston Cloud Jr., Chairman of the Committee on Resources and Man of the National Academy of Sciences, said the United States will be hard pressed beyond the year 2000 to support the needs of a growing population without some reduction in per capita demand. "Unless corrected by deliberate and active choice, the consequences of our

deteriorating physical, biological and psycho-social environment, and inadequacies in the management and distribution of resources, may well limit the growth of population before absolute limitations of resources become critical."

Richard Falk, Milbank Professor of International Law, Princeton University, suggested the first task of government should be to declare a state of environmental emergency "in order to awaken the American people to the reality and actuality of the problems that exist." He proposed the establishment of a national plan to achieve a stable and optimum population, and urged that national colleges of human ecology and survival be organized. "The U.S. Government is now associated with National war colleges and various institutes for studying defense policy. It is time that similar educational efforts were made in relation to the protection of the environment. ..."

Roger Revelle, Director of the Harvard Center for Population Studies, noted that while it is fashionable to blame the degradation of our environment on population growth "a good case can be made that at least equally important villains are the increase in our gross national product and the changing patterns of our lives including our habits of consumption, filth, clumping ourselves together in cities and high mobility." He said we need to devote a large share of our ever-increasing productivity to those things that are important for human beings, "namely, a good life which has meaning and makes sense. This of course means an improvement and maintenance of environmental quality."

Jean Mayer, Professor of Nutrition at Harvard University, observed that the rich create more environmental problems than the poor "for rich people occupy more space, consume more of each natural resource, disturb the ecology more, and create more land, air, water, chemical, thermal and radioactive pollution."

Kenneth E. F. Watt, Professor of Zoology at the University of California, Davis, identified four deleterious processes associated with population growth and higher population densities: (1) the growing competition for resources of all types; (2) a number of medical and behavioral effects on individuals resulting from crowding; (3) a breakdown of social processes, particularly in cities, over which politicians increasingly find they have little control; and, (4) the inexorable process of environmental degradation resulting from pesticides, nitrates and other factors.

J. George Harrar, President of the Rockefeller Foundation, told the Committee that we have reached the point where, because of our technological successes, we could outstrip resources simply by responding to our own demands. "An advanced industrialized society such as ours with a comparatively low birth rate uses up its natural resources and upsets its environmental equilibrium at a much faster rate than does an underdeveloped, poor country with a high birth rate."

Reginald S. Lourie, Director of Psychiatry, Children's Hospital, Washington, D. C., said children are this country's most important resource, "yet we provide proportionately less of our resources in services for families than for the optimum growth of crops and livestock."

Joseph L. Fisher, President of Resources for the Future Inc., maintained that in the foreseeable future of a few decades the anticipated increase in U.S. population by itself is not likely to cause any serious shortages of major resource materials. He said "the full effects of a growing population on the quality of our environment, distinguished from the production of raw material and food, are more difficult to foresee in any comprehensive way. The big unknown is the response of technology, laws and institutions and human behavior."

Judith Blake Davis, Chairman of the Department of Demography, University of California, Berkeley, noted that our population expansion is due primarily to wanted rather than unwanted children. She said "a great deal of research is needed to document the effect of lifting current pressures to reproduce."

Lincoln and Alice Day, both of Yale University, pointed out that the high cost of maintaining additions to our population at current levels of living "diminishes the chances of improving the conditions of life for the large minority of our population who are poor."

Garrett Hardin, Professor of Biology at the University of California, Santa Barbara, saw population growth posing a threat to National Parks. "There should be a periodic audit based on site visits to see if the regulating agencies are doing a good job of preserving variety in our areas of natural beauty, and saving the best of those areas undamaged for our descendents."

On December 10, 1969, the Committee on Government Operations reported H.R. 15165 (H. Rept. 91-738). The bill called for a commission composed of two Members of the Senate and two of the House, representing both political parties, and up to 20 Members to be appointed by the President. In addition to the duties called for in S. 2701, the House Committee's recommendation added two other areas of study:

(1) The impact of population growth on environmental pollution and on the depletion of natural resources; and

(2) The various means appropriate to the ethical values and principles by which the Nation can achieve a population level best suited for its environmental, natural resources, and other needs.

The bill, as reported, called for an interim report to the President and the Congress on its findings and recommendations one year after its establishment, and a final report two years after enactment of the law.

Final action on these measures was pending at the end of the first session.

Power and Energy

Environmental considerations assumed a more important part of Congressional deliberations on power and energy resources in 1969. The threat of blackouts and power failures over wide areas of the country--a phenomenon bearing a major impact on our 20th Century environment--was the subject of hearings before a committee of the House of Representatives. The potentially destructive environmental effects of power plant location came under Congressional scrutiny in the first session of the 91st Congress, as it had in previous sessions.

Power Reliability

The House Interstate and Foreign Commerce Committee (Subcommittee on Communications and Power) held hearings on H.R. 7186 and similar bills which proposed amending the Federal Power Act to give the Federal Power Commission authority to review plans for extra-high voltage lines, as well as authority to order interconnections between utilities to insure reliable power delivery.[1/] H.R. 7186 also proposed establishment of regional councils of electric utilities to coordinate the operation of producers of power supplies, and a National Council on the Environment to review plans submitted to the Federal Power Commission.

1/Congressional Quarterly Weekly Report, April 11, 1969 (p. 520-521) and Aug. 15, 1969 (p. 1503). Related bills include S. 1916 and H.R. 9429, the Federal State Electric Power Reliability and Scenic Conservation Act, and S. 2752, the Intergovernmental Coordination of Power Development and Environmental Protection Act.

During hearings on the proposals before the House Committee, some industry spokesmen opposed FPC review of utility planning, while others saw the proposed legislation as a step toward obtaining cheaper and more reliable power supplies.

Floyd L. Goss, Chairman of the Western Systems Coordinating Council told the Committee that the Council had developed efficient coordination of interconnected power systems, and that FPC control would limit flexibility and increase the difficult of reaching voluntary solutions to the problems of power reliability.[1/] E. B. Crutchfield, representing the Carolinas-Virginias Power Pool contended FPC review of planning would add a time lag in the planning, construction, and voluntary coordination of extra-high voltage transmission of power. William O. Doub, a representative the National Association of Regulatory Commissioners, objected to the granting to FPC of "massive regulatory authority", proposing instead the NARUC's Federal-State Electric Power Reliability and Scenic Conservation Act of 1969, which would, he said, preserve State participation in public utility regulation. Robert H. Gerdes, President of the Edison Electric Institute, opposed FPC review on the ground it "would destroy the present initiative in achieving reliability and would constitute a major step backward, to the ultimate disadvantage of the consumer."

1/References to hearings on power reliability legislation are from the Congressional Quarterly publications cited above.

James E. Baker, representing the Power Planning Committee of the Municipal Electric Associations of Massachusetts, approved H.R. 7186 and related legislation, stating that large electric companies in New England prevented municipal companies from obtaining cheaper electric power supplies. He favored formation of regional councils. Robert W. Cowden, of the Northern California Power Agency, stated that proposed legislation would assist small systems in obtaining lower-cost power and encourage more economic operations.

John L. George, President of the Rachel Carson Trust for the Living Environment, supported creation of a National Council on the Environment, stating that single-purpose economic development had resulted in environmental degradation.

In July, the Subcommitee on Communications continued hearings on power reliability. H.R. 12585, the Electric Power Coordination Act of 1969, designed to insure adequate bulk supplies of power, was endorsed by Lee C. White, then-Chairman of the Federal Power Commission. He noted that the demand for power had continued to exceed the industry's projections, and that isolated planning by major utilities had prevented participation by the smaller companies in the operation of efficient power systems.

Hearings on power reliability were held by the Senate Subcommittee on Intergovernmental Relations of the Committee on Government Operation on February 3-4 and March 4, 1969. The subject legislative proposal was S. 2752, the Intergovernmental Coordination and Power Development and Environmental Protection Act of 1969. No further action was reported in the first session.

Power Plant Sites

Early in the year, a report by the Office of Science and Technology stated that electric generating capacity in the United States would be tripled by the end of the century, and that most of the increased output would come from 250 large power plants, as compared with some 3,000 plants existing in 1970. The report warned that the large power generating and transmission facilities of the future "can do great damage to fish and wildlife, aesthetic and recreation values if improperly located or poorly planned.[1/]

Congressional concern for the effects of the location of power facilities prompted the introduction of a variety of bills designed to prevent further environmental degradation, by reason of plant site, as well as to insure electric power reliability.[2/]

Related to this interest was the publication, in August 1969, by the Joint Committee on Atomic Energy of a compilation of materials on the environmental effects of electric power production.[3/] In a

---

1/U.S. Office of Science and Technology, Energy Policy Staff. Considerations Affecting Steam Power Plant Site Selection. Washington, January 1969.

2/Among these, H.R. 12585, The Electric Power Coordination Act, is cited above; H.R. 7052 and H.R. 7186 were similar bills. See also: H.R. 2506, the Electric Power Plant Siting Act; S. 1071, the Electric Power Reliability Act, and similar bills (H.R. 489, 1253, 5841, 7016, 7052, 7186, 9215, and 9557).

3/91st Cong., 1st sess. Selected materials on environmental effects of producing electric power. Joint Committee on Atomic Energy. Washington, August 1969. (Joint Committee Print).

foreward to the compilation, Chairman Holifield and Vice-Chairman Pastore announced hearings to take place later in the year, on the environmental effects of nuclear powerplants. The foreward stated:

> In order to put these environmental considerations into proper overall perspective, the committee also will examine the environmental effects of producing electric power through other energy forms, such as coal, oil, and gas. In addition, the committee plans to explore the consequencies of various actions that might be taken to eliminate or reduce detrimental environmental effects.1/

Hearings by the Joint Committee on Atomic Energy commenced on October 28, and continued in November, 1969.2/ These comprehensive hearings on the environmental effects of electric power production focused on thermal pollution and radioactive wastes from the production of electricity using nuclear power, as well as from the more conventional sources. Among witnesses were representatives from Federal agencies, the utility industry, and critics of the use of nuclear power.

Underground transmission of electricity

A number of bills were introduced in the first session to encourage the underground transmission of electricity. H.R. 487, the proposed Underground Power Transmission Act, would authorize

---

1/Ibid., p. iv.

2/91st Cong., 1st sess. Environmental effect of producing electric power. Hearings before the Joint Committee on Atomic Energy. Washington, Oct 28 - 31; Nov. 4-7, 1969.

the Secretary of the Interior to conduct a program of research and development to encourage underground transmission. H.R. 1198 proposed amortization deduction and tax credit under the Internal Revenue Code for expenditures made for transferring lines underground.

Public Lands

In 1964 Congress created a Public Land Law Review Commission to examine all statutes, regulations, policies, and practices governing the use, management, retention and/or disposal of the public lands in the United States. The 90th Congress extended the life of the Commission for one year. The published report from the PLLRC is due before June 30, 1970. This effort promises to be a major landmark in the history of public lands in this country.

(Other legislation related to public lands has been covered under headings such as forestry, Alaska, recreation etc., and will not be included here.)

Solid Waste Management

Major Congressional activity in solid waste management focused on the proposed Resource Recovery Act of 1969 (S. 2005). It would amend, strengthen, and extend for an additional four years the Solid Waste Disposal Act of 1965. Hearings were held intermittently from April to October in Boston, Jacksonville, and Detroit, as well as in Washington. The Senate Public Works Subcommittee on Air and Water Pollution, to which the bill was referred, may travel to the West Coast to hear additional testimony.

In the House of Representatives, a number of bills dealing with solid waste management were introduced; H.R. 10916 was identical to S. 2005. Another (H.R. 11833) differed only in the amount of funds which would be authorized. Others were less comprehensive versions of those mentioned. No action had been taken by the House Committee on Interstate and Foreign Commerce at the end of the first session.

Resource Recovery Act of 1969

Introduced by Senator Muskie, the proposed Resource Recovery Act would make two additions to existing legislation:

First, the Secretary of Health, Education and Welfare would be directed to conduct studies and report to the President and the Congress on economical means of recovering useful materials from solid wastes, recommended uses of such materials, and markets for the products of such recovery. In addition, the Secretary would be called upon to recommend incentive programs (including tax

incentives) to assist in solving problems of disposal, as well as to recommend changes in production and packaging practices to reduce solid wastes. He would also be authorized to carry out demonstration projects to test the recovery techniques developed by these studies.

Second, the Secretary would be authorized to make grants to States, municipalities, or interstate or intermunicipal agencies for the construction of solid waste disposal facilities, and to provide incentives for new and improved methods for dealing with solid wastes.

During hearings on S. 2005, Administration witnesses, while affirming the importance of the subject, did not feel that additional legislation was necessary; they felt existing authorities were sufficient. Specific issue was taken with Sections 207 and 208, establishing grants for local planning and for construction, respectively. Secretary Finch stated his objections to these sections:

> I oppose the categorical program for solid waste planning [Section 207] ... because such planning cannot be separated from other environmental planning ... At the local level the dominant problem is often how to reconcile the different plans and bureaucratic interests of these Federally supported bodies ... I believe we should move toward better coordination of existing authorities.
>
> The effect of Federal construction grants [Section 208] would be to place the financial ... burden on the taxpayers at large. That burden should instead fall primarily on those who produce wastes.

Dr. Hubert Heffner of the Office of Science and Technology, expressed additional reservations with regard to the construction grants. He stated that the cost of solid waste collection ($3.4 billion per year) far exceeds that of disposal (about $700 million per year); the bill thus would concentrate on that aspect of the problem least costly to local governments. Dr. Heffner also stated that local governments should be left to set their own priorities with as little outside influence and imposition of orders of precedence as possible.

Two publications of interest to the Congress on the subject of solid waste management appeared in 1969. One, prepared by an ad hoc group for the Office of Science and Technology, was entitled Solid Waste Management.[1/] The other, Policies for Solid Waste Management, was issued by the Ad Hoc Committee on Solid Waste Management of the National Academy of Engineering-National Academy of Sciences.[2/]

Both reports saw a significant Federal role in the field, particularly in areas of research, development, demonstration projects, information, and education and training activities. It was noted that effective use of existing technology often was not made. A

1/Executive Office of the President, Office of Science and Technology. Solid Waste Management - A comprehensive assessment of solid waste problems, practices and needs. Prepared by Ad Hoc Group for OST. Washington, U.S. Govt. Print. Off., May 1969.

2/National Academy of Engineering-National Academy of Sciences. Policies for Solid Waste Management. Prepared by Ad Hoc Committee on Solid Waste Management, Committee on Pollution Abatement Control, Division of Engineering, National Research Council. Washington, D. C., 1969.

special obligation on the part of Government installations to provide examples of proper waste management was recognized. An investigation to study constraints and incentives to encourage industry cooperation was recommended, as well as sharply increased landing for the Bureau of Solid Waste Management in the Environmental Control Administration of the Department of Health, Education and Welfare.

Water Pollution

The first session of the 91st Congress gave heavy attention to the various aspects of water pollution. Congressional and public interest has grown steadily in recent years, the result of revelations of increasingly alarming proportions concerning Lake Erie, the Hudson River, the Torrey Canyon disaster, the Santa Barbara oil-spill, and many other examples of environmental degradation. Congress, by the opening of the 91st Congress, had already responded to various water pollution crises with such landmark legislation as the Water Quality Act of 1965 and the Clean Water Restoration Act of 1966. The 91st Congress continued to press toward controlling water pollution, whether from oil and other hazardous substances, electric power generation, or from untreated wastes from all sources.

Water Quality Improvement Act

Introduced on January 23, 1969, the bill (H.R. 4148) had its genesis in S. 3206 which had failed of passage in the 90th Congress. The major provisions of H.R. 4148, included:

- an additional method for financing construction of municipal waste treatment works through a $50 million revovling fund to be financed through the sale of tax-exempt bonds;

- the requirement that the Secretary of the Interior set Federal standards for marine sanitation devices to prevent the discharge of sewage from vessels;

- a prohibition against the discharge by vessels of oil into navigable waters;

- the requirement that vessel owners and operators, as well as onshore and offshore oil producers, remove or bear the cost of removal of offending oil pollution;

- a requirement that the Secretary of Transportation study the need for measures and the limitation of liability with respect the vessels using navigable waters for costs of removing discharged oil and associated damage;

- authority for the Secretary of the Interior to cooperate with States to carry out projects to eliminate mine water pollution;

- a requirement that Federal agencies having control over real property comply with water quality standards, as well as with the principles of the proposed Act;

- authority for the Secretary of the Interior to contract and make grants for the development of improved methods to prevent lake pollution; and

- authorization of $348 million for fiscal years 1970, 1971, and 1972, including $20 million for water pollution cleanup funds, $15 million for acid mine drainage, $62 million for training grants and contracts, $121 million for project research, and $130 million for general research, investigation and training.

S. 544, a similar bill, introduced by Senator Muskie, was the subject of hearings by the Committee on Public Works (Subcommittee on Air and Water Pollution) in February, March, April and May, 1969. The Subcommittee reported S. 7 (Senator Muskie) to the full Committee in lieu of S. 544 on August 7, 1969. Hearings by the full Committee were held on July 15, and the Committee's report (S. Rept. 91-351) was made on August 7, 1969. House hearings on H.R. 4148 were held by the Committee on Public Works in February and March; its report (H.Rept. 91-127) was made (with admendments) to the House on March 25.

H.R. 4148 was passed in the House on April 16, and in the Senate on October 8, 1969 (amended). At the end of the first session, the bill (in conference) awaited final action.

During hearings, major opposition to the Water Quality Improvement Act came from the oil and electric power interests. A spokesman for the Edison Electric Institute testified that no new legislation was needed, since standards included in the Water Quality Act of 1965 should be adequate to control thermal pollution. He added that if Congress should decide additional legislation was necessary, the regulatory responsibility should rest with the States.

An insurance company spokesman stated that the oil-spill liability in the proposed legistion was too high, and would be "uninsurable." A representative of the American Petroleum Institute said that industry, local and State governments were making great strides in pollution control and therefore, the Federal government should step in only in the case of inaction by other levels of government. Another oil spokesman mentioned that liability beyond $100 per gross ton, with a ceiling of $10 million, would cause hardship to the American merchant marine.

Concerning boat sanitary waste facilities, industry spokesmen urged the Committee to require uniform standards, rather than allow individual States or localities to forbid the use of Federally approved devices, as was provided by two of the bills under consideration.

The Report of the House Committee on Public Works (No. 91-127) mentions the growing concern with water pollution and the specific concern over oil pollution stemming from the Torrey Canyon and Santa Barbara oil spills. Of the existing law covering oil pollution it stated that the Oil Pollution Act of 1924:

> ....is simply not sufficient to cope with such problems. It applies only to discharges that are grossly negligent and willful; limited to vessels, it does not apply at all to spills from fixed installations such as pipelines, oil deposits, refineries, or manufacturing plants or other types of industrial activity using and storing large quantities of oil. Confined to oil, the 1924 act provides no protection against dozens of other potentially hazardous substances.
>
> In addition to its contamination of water, shoreline and beaches, oil often has severe effects on fish and wildlife, shellfish, and recreation. Untold ecological damage can result not only from the oil itself but also from chemicals used in attempting to deal with the oil. We must be able to combat this type of pollution and prevent wherever possible, catastrophies like these. It is in large part to that need that H.R. 4148 is addressed. 1/

Other comments with regard to the oil pollution control provision indicated the Committee's desire to cushion the possible disastrous effects on small onshore businesses of high liability, emphasizing that the major thrust of the bill is:

> ...to provide a high liability for a large discharge from a major facility and at the same time insure that reasonably low liability will be set for the hundreds of small businesses and other facilities along our waters whose potential discharge would be small and upon whom a large liability could very well impose a ruinous burden.2/

1/91st Cong., 1st sess. House. Report 91-127, p. 2.
2/Ibid., p. 4.

In connection with provisions for control of sewage pollution from vessels, the report stressed that:

> ...in the application of the standards and regulations for existing vessels, the most careful consideration should be given to the problem of economic costs. The American flag merchant marine is already in a critical position. More than 80 percent of the nonpassenger vessels are more than 20 years old, and if they are still in operation when the regulations become effective, the cost of their refitting would almost certainly be prohibitive. American flag passenger vessels are few and are a marginal operation at best. It is obvious that a reasonable approach in these circumstances is called for. 1/

The Report noted the extent of the acid mine drainage problem with these figures:

> An estimated 3.5 million tons of acid mine waters drain into the streams of the United States annually, damaging approximately 4,000 miles of streams. 2/

In discussing the provision affecting Federally-operated or licensed activities, the Committee report noted publicity given to Corps of Engineers activities, commenting that research must ultimately determine the seriousness of pollution. The report also cautioned that:

> ...the continuing viability of the rivers and harbors that produce the spoil are essential to the regions they serve, and hence to the total national interest. 3/

1/Op.cit., p. 5.
2/Ibid.,
3/Ibid., p. 6.

In connection with provisions affecting Federal activities and those of Federal licensees, the Committee stated its intention that the language eliminate duplicative certification requirements and afford a safeguard against too broad use of the single certification.

Three amendments were added during the two-day debate on H.R. 4148, which passed the House of Representatives April 16 including one directing the Secretary of the Interior to make a study of possible water pollution control financing. Incentive awards to industry and local governments for noteworthy efforts was the subject of another amendment accepted by the House. A third amendment provided for a Great Lakes water pollution demonstration project.

S. 7, which was reported to the Senate on August 7, was considered by that body October 7 and 8 before action on it was postponed; H.R. 4148 was passed in lieu. S. 7 was essentially the same as the House bill, although it was considered by some observers the more comprehensive of the two.

Hearings on S. 7 before a subcommittee of the Committee on Public Works revealed opposition by industry spokesmen to the provision concerning pollution by Federal licensees and to liability requirements for oil pollution. The representative of the Manufacturing Chemists' Association indicated a reversal of his organization's 1968 position opposing increased Federal controls over water pollution. The representative of the American Iron and Steel Institute urged tax credits and other incentives to industry. Spokesmen for the American Waterways Incorporated and the Lake Carriers Association urged

authority to the Secretary of the Interior to establish Federal standards for control of sewage pollution from vessels. Conservation groups supported both S. 7 and S. 544, recommending some strengthening with respect to sewage treatment requirements and to liability in the case of oil spills.

Secretary of the Interior Hickel testified in support of both bills, but proposed several strengthening amendments respecting safeguards in the transportation of substances which might produce pollution, the liability of oil companies for well "blowouts", penalties for negligent discharge of oil from offshore installations, creation of a Treasury fund for financing cleanup operations, and a requirement that vessel operators give evidence of financial ability to clean up oil pollution.

The Committee's report on S. 7 (Rept. 91-351) stated that "Those who benefit from our water resources for trade or recreation must also accept the responsibility for preserving and enhancing water quality." In connection with thermal pollution, it cited the responsibility of Federal agencies to protect water quality wherever such activities affect public waterways. The report underlined past Congressional action, emphasizing a continued need for action:

> In the past 6 years, Congress has maintained that the effort to clean up our Nation's waters requires the most urgent commitment of organization, planning, engineering skill, and funds directed toward improvement of the quality of our environment. We have acknowledged the need for clean water in the broadest sense. But the demand for clean water is so great and is growing so rapidly that we cannot afford to overlook any opportunity to increase the available supply

of water, or to prevent and control sources of pollution which threaten the existing supply. 1/

The report detailed the difficulty faced by the Committee in determining the type and level of liability to apply to oil pollution:

> Two factors influenced the decision of the committee relating to the level of the limit of liability. First, the increasing volume of oil being handled by an increasing number of vessels and facilities enhances the risk of major disaster, and second, the protection of our vital water resources and shorelines is more and more imperative.
>
> At the present time the United States has neither the administrative nor the financial authority to deal with such catastrophic events. But it is not solely the catastrophic disaster with which the committee is concerned. Incident after incident of careless, accidental and negligent oil discharges occur every year in the United States. The latest information on spills sets forth 92 discharges of oil and other hazardous substances since January of this year. The cost of cleanup of these discharges has not been computed. In some cases the total effects are not known. But the evidence is clear that these discharges of oil cannot be allowed to continued without some method of assessing the liability of those who discharge that oil. While the legislative approach is complex, the intent of the committee is clear. The legislation is designed to encourage preventive action to eliminate discharges of oil wherever possible and to provide adequate authority to clean up those discharges which do occur and assess the cost on the responsible party if the Federal Government is required to exercise its cleanup authority. 2/

Concluding its general statement on Title I:

1/91st Cong., 1st sess. Senate. Amending the Federal Water Pollution Control Act, as amended ... Report of the Committee on Public Works ... on S. 7, p. 4 (Report No. 91-351).
2/Ibid., p. 7.

> This title of S. 7 is as significant as any water pollution legislation ever reported by the Committee on Public Works. It provides authority to deal with a variety of critical yet definable water pollution problems. Unlike prior measures which have been reported by this committee, this legislation does not develop a new policy for water pollution control but rather provides additional tools to implement the national policy of water quality enhancement established by the Water Quality Act of 1965. This title recognizes that all of the tasks which confront the Nation, if it is to secure effective control of water pollution, cannot be solved without these additional tools. It recognizes that there are still areas in our national environmental control effort which require specific attention and specific mechanisms to solve specific problems.
>
> Finally, it recognizes that no single bill can effectively provide a final solution to this critical national problem. While the Water Quality Act of 1965 was a comprehensive policy outline and a mechanism for developing an integrated approach to pollution control and while the 1966 act was the funding authority which was needed to implement the guidelines set forth by the Water Quality Act, this legislation is designed to improve the ability of the Nation to cope with critical and pressing problems. 1/

In its comments on the provision of S. 7 which would establish an Office of Environmental Quality, the Committee stated that neither the Cabinet Council on Environmental Quality created by Executive Order, nor ad hoc panels were adequate instruments for environmental management problems. Potential jurisdictional conflicts between Senator Muskie's proposed Office of Environmental Quality (S. 7) and Senator Jackson's proposed Board of Environmental Advisors (S. 1075) were resolved by agreement that the Office would serve as staff support to the proposed three-man Board, and that the Board

---

1/Ibid., p. 10.

annual report would be sent to all appropriate Committees, rather than solely to the Committee on Interior and Insular Affairs.

In floor debate on S. 7, Senator Long argued the bill's liability provisions (up to $125 per gross ton, or unlimited liability in case of negligence) could further debilitate the already struggling merchant marine, and that it would force smaller operators out of business. He felt the liability provisions of H.R. 4148 ($100 per gross ton, with no absolute liability clause) was preferable. Senator Muskie responded by citing the $118-per gross ton cleanup cost of the Torrey Canyon disaster, and claimed the House bill would seriously limit the ability to collect cleanup funds advanced by the Government. Senator Allott questioned the provision calling for an Office of Environmental Quality, stating his opinion that passage of both S. 7 and S. 1075 woud create "an administrative two-headed monster." Senator Pastore noted that S. 7 (unlike H.R. 4148) carried no provision for exemption to Federal compliance with water quality standards in case of National defense needs.

Before action on S. 7 was postponed in favor of H.R. 4148, several amendments were accepted. These included; giving Secretary of Interior discretion to apply unobligated construction grant funds to either approved projects or to apply them to reimbursement payments to States and local governments; assuring the same rights and privileges to a maritime insurer, so far as oil pollution is concerned, as are available to the shipowner; providing an opportunity to interested persons for a public hearing regarding issuance of licenses to conduct

any activity which may result in any discharge into navigable waters; waiving certain certifications if operating license or permit respecting construction of a facility that may result in discharge into navigable waters has been issued within 3 years after enactment; providing for a study of methods to control release of pesticides; affording to State and local government units access to the capital market now enjoyed by them when they issue bonds for housing, university, and dormitory purposes, so they may borrow money for water and sewer construction at the lowest possible costs; adding to the bill a title IV - Alaska Village Safe Water Facilities; substituting for title II - Environmental Quality; and directing the Secretary of the Interior to engage in certain research, studies, experiments, and demonstrations relative to removal of oil from any waters and prevention and control of oil pollution.

Other Pollution Legislation

The House Merchant Marine and Fisheries Committee held hearings on four bills (H.R. 6495, 6609, 6794, and 7325). These were similar to the oil pollution control provisions of H.R. 4148 and S. 7.

Witnesses representing the American Waterways Operators, Inc. argued that liability should be limited to operators who willfully or negligently caused pollution. This was also voiced by a representative of the American Institute of Merchant Shipping who requested that cleanup responsibility be vested in the Coast Guard. A Department

of Transportation witness suggested the bill be broadened to include pollution other than oil. A representative of the Navy said the bill violated international law, relative to the regulation of oil discharges from those offshore installations which might be situated in waters at distance exceeding existing limitations granted to coastal nations. The Secretary of the Interior testified that he felt his Department (rather than the Department of Commerce) should set environmental quality criteria. He also said the Secretary of the Interior should identify the other hazardous substances included in the law, recommended against liability for owners/operators of Outer Continental Shelf oil rigs, and suggested civil penalties for willful or negligent discharge of oil or other pollutants.

The Committee did not issue a report.

Water Resource Development

The first session of the 91st Congress marked a pause in the march of water resource development, which had recorded unusual gains in the decade of the 1960's. Its record establishes the 91st Congress as one in which the emphasis on water resource development was beginning to be matched by a concern for the quality aspects of water as an integral part of the total environment; water quality, water-based recreation, and aesthetics assumed a more prominent role in Congressional thinking.

The House and Senate Appropriations Committees are continually faced by numerous projects in various stages of engineering investigation, advanced planning, or construction. The task of these committees involves a balancing of support, to insure that needed projects are advanced, and at the same time, expenditures are equitably shared by all sections of the country. This task is sometimes complicated--in the case of very large projects--by cost increases, which threaten the equitable allocation of available funds.

Financing Water Resource Developments

The appropriations bill for "public works for water, pollution control, and power development" for fiscal 1970 became P.L. 91-144 on December 11, 1969. Corps of Engineers functions included:

General investigations	$ 41,191,000
Construction, general	711,992,000
Flood control, Mississippi and Tributaries	80,820,000
General operation and maintenance	253,000,000
General expenses	22,680,000
Administrative expenses	176,500,000

In addition, certain water agencies in the Department of the Interior are included in the Public Works Appropriations Bill approved in 1969. These include:

Federal Water Pollution Control Administration ($9,400,000 for grants to States; $600,000 for grants to interstate agencies; $86,382,000 to carry out other provisions of the Federal Water Pollution Control Act; and $800,000,000 for construction grants for waste treatment);

Bureau of Reclamation ($16,030,000 for general investigations; $149,381,500 for construction and rehabilitation; $28,240,000 for the Upper Colorado River Storage Project; $1,200,000 for the Colorado Basin Project; $53,500,000 for operation and maintenance of reclamation projects; and smaller amounts for the loan program, emergency fund and special funds.)

The Alaska Power Administration, the Bonneville Power Administration, the Southeastern Power Administration, and the Southwestern Power Administration all received appropriations under this same public works appropriations bill. Also included were appropriations for several independent offices: the Atlantic-Pacific Interoceanic Canal Study Commission, the Delaware River Basin Commission, the Interstate Commission on the

Potomac River Basin; the National Water Commission; the Tennessee Valley Authority; the Water Resources Council.

A summary of Congressional action on public works appropriations shows that for General Investigations by the Corps of Engineers there was appropriated $41,191,000 instead of $40,600,000 as proposed by the House and $41,760,000 as proposed by the Senate. The increase over the House bill includes $200,000 to initiate the International Field Year on the Great Lakes; $400,000 for the Texas water and pollution study; and $351,000 for miscellaneous other studies in 14 States. For construction, general the final appropriation was $711,992,000 instead of $671,982,000 as proposed by the House and $740,469,000 as proposed by the Senate, for projects in the 50 States. The President's Budget estimate for construction and planning was $627,055,000. Thirty-one unbudgeted items were allowed appropriations by the Congress.

The second major "money bill" for water resource development, acted upon in the Ninety-First Congress in its first session, was H.R. 12781, making appropriations for the Department of the Interior and related agencies for the fiscal year 1970. The major water-oriented units of the Department of the Interior received the following appropriations (Public Law 91-98, signed October 29, 1969):

Bureau of Outdoor Recreation
Salaries and expenses not otherwise provided for...$3,750,000
Land and Water Conservation...$124,000,000 (with stipulations that portions of this sum were to be distributed to the Bureau of Outdoor Recreation; payments on a matching-basis to States; the National Park Service; the Forest Service; the Bureau of Sport Fisheries and Wildlife; and liquidation of obligations)

Geological Survey
Surveys, Investigations, Research...$95,755,000
($15,610,000 to be available for cooperation with States or municipalities for water resource investigations)

Office of Saline Water
Studies of conversion of saline water...$25,000,000
Administration and coordination...$1,972,000

Office of Water Resources Research
Carrying out provisions of Act of 1964...$11,229,000
Administrative expenses...$623,000 (to be derived from $11,229,000 appropriation mentioned above)

One river basin compact was approved by the Congress in 1969: S. 38 granted consent to the Upper Niobrara River Compact between Wyoming and Nebraska. It became Public Law 91-52, approved August 4, 1969. The major purposes of the Compact are to provide for an equitable division of available surface water supply of the Upper Niobrara River Basin; to obtain information on groundwater and underground water flow necessary for apportioning underground flow; to remove all causes present and future that might lead to controversy; and to promote interstate comity.

Disaster Relief Legislation

In the Disaster Relief Act of 1969 (Public Law 91-79, approved by the President on October 1, 1969), the Congress recognized that a number of States experienced extensive property loss and damage from recent major disasters, including hurricanes, storms and floods, and that there was need for special measures to aid and speed up the efforts of affected States to rebuild and rehabilitate the devastated areas.

Upon application by an affected State, the President was authorized to make grants up to $250,000 to any State. "Major disasters" as used in the Act meant a major disaster as determined by the President pursuant to the 1950 Act (as amended) which authorized Federal assistance to States and local governments in major disasters.

New Water Resource Studies

Public Law 91-81, approved by the President on October 8, 1969, authorized the Secretary of the Interior to engage in feasibility studies of certain water resource developments; viz., Missouri River Basin Project, Oregon Trail Division, Corn Creek Unit, (Wyoming); Missouri River Basin Project, Longs Peak Division, Front Range Unit, (Colorado); Missouri River Basin Project, Upper Republican Division, Armel Unit, (Colorado); Shoshone Project, Buffalo Bill Dam modifications, the Shoshone River, (Wyoming); Missouri River Basin Project, James Division, Sioux Falls Unit, (South Dakota); Amargosa Project, Amargosa River Basin, (Nevada and California); Willamette River Project, South Yamhill Division, South Yamhill and Willamette Rivers, (Oregon).

Some hearings conducted by the House Interior and Insular Affairs Committee dealt with Policies, Programs, and Activities of the Interior Department.[1/] They consisted of six volumes, of which Parts III, IV, and V have the most relevance for water resource activities under the jurisdiction of the Interior Department.

1/U.S. Congress. House. Policies, Programs, and Activities of the Department of the Interior. Hearings before the Committee on Interior and Insular Affairs.

National Water Commission Report

On December 31, 1969, the National Water Commission issued its Interim Report No. 1, its annual report for 1969.[1/] The Commission, created by the Congress in September 1968 to make a five-year study and recommendations to the Congress and the President on the Nation's water needs, resources and problems, gives in its first annual report a brief summary of the Commission's activities during its first year of existence. Divided into four parts, the report covers the six regional conferences it conducted (as well as a national conference in Washington, D.C.) during the year--conferences that brought to the Commission the country's feelings and thoughts about goals, objectives, priorities, planning, institutions, water law, interbasin transfers, urban areas, and other problems as they related to water resources; information obtained from experts and officials about new trends and possibilities; evaluation of evidence collected and formulation of the Commission's study program; and the organization of the Commission.

Water Resources Council Report

In late 1968 the Water Resources Council, created by the Congress in 1965 as Title I of the Water Resources Planning Act, published

1/National Water Commission. Annual Report for 1969, Interim Report No. 1. Washington, D.C., U.S.G.P.O. December 31, 1969. (National Water Commission, 800 North Quincy Street, Arlington, Virginia.)

its first national assessment of the Nation's water resources.[1/] The report describes water and related land resources use and management problems. The report covered findings and recommendations of the Council, based on what appeared to the Council to be the most important national and regional water problems. This First National Assessment is based on existing data, with limited analysis, and shows a heavy reliance on the judgment of Federal and local officials, in the paraphrase of Stewart Udall. Future assessments will be improved through better analytical and information systems.

1/Water Resources Council. The Nation's Water Resources: The First National Assessment of the Water Resources Council. The Nation's Water Resources, Parts 1-7 and The Nation's Water Resources--Summary Report, Part 1. Washington, D.C., U.S.G.P.O., 1968. See also: Its Report to the Water Resources Council by the Special Task Force: Procedures for Evaluation of Water and Related Land Resource Projects. United States Water Resources Council, Suite 900, 1025 Vermont Avenue, N.W., Washington, D.C., June 1969.

Wildlife

Two issues dominated Congressional activity on the Nation's wildlife in 1969--endangered species, and the question of jurisdiction over the management of fish and wildlife on Federal lands.

States' Rights

Federal land agencies and state game departments have generally had harmonious relationships in the past and have been able to establish satisfactory working agreements. This balance was upset in 1964, however, by the issuance of a widely criticized opinion of the solicitor of the Department of the Interior which held that the Federal Government had authority to manage and regulate all fish and wildlife on federal lands. The controversy was further heightened by the National Park Service's refusal to comply with laws of the State of New Mexico regarding the killing of deer in Carlsbad National Park for research purposes.

Bills to clarify policy on this issue were introduced both in the 90th Congress and in the 91st. The main bill under consideration in 1969 was S. 1232, which was introduced on February 28, by Senator Moss. The Senate Committee on Commerce held field hearings in Cleveland, Ohio on April 3rd. More than 50 witnesses presented testimony. The Committee reported the bill on November 20th (Report No. 91-551).

As stated in the report, the purpose of S. 1232 is to declare and determine the policy of the Congress with respect to the primary authority of the several States to control, regulate, and manage fish

and wildlife within their territorial boundaries; to confirm to the several States such primary authority and responsibility with respect to the management, regulation, and control of fish and wildlife on lands owned by the United States; and to specify the exceptions applicable thereto; and to provide procedure under which Federal agencies may otherwise regulate the taking of fish and game on such lands.1/

...

It is not the purpose of S. 1232 to open Federal lands to public hunting or fishing where such is not now permitted. The bill in no way affects the authority of Federal administrators to limit or prohibit altogether hunting and fishing on Federal lands if such limitation or prohibition has been otherwise authorized by Congress. Nor does the bill alter the authority of Federal administrators, if otherwise authorized, to manage fish and wildlife habitat on its lands. The bill instead confirms the primary role of the States with respect to fish and resident wildlife within their borders and requires that taking of fish and resident wildlife, whether by the public or by Federal personnel in pursuance of a Federal project, be accomplished in compliance with State law.2/

1/91st Cong., 1st sess. Senate. Management of Fish and Resident Wildlife on Federal Land. Report to accompany S. 1232. Washington, November 20, 1969, p. 1. (Report no. 91-551).

2/Ibid. p. 4.

At the Cleveland hearings 27 state game and fish commissioners testified in support of the bill. The Wildlife Management Institute, the Izaak Walton League, and the National Wildlife Federation also supported the bill, but stated that they hoped the differences could be settled by meetings between the aggrieved parties. The 1969 Western Governors' Conference passed a resolution in which they urged Congress to enact S. 1232. The Committee Report no. 91-551 lists the following groups who did not support the bill:

> Opposing the bills were, the National Audubon Society, the Defenders of Wildlife, the National Parks Association and the Sierra Club. They say, in effect, that they believe the whole issue could be settled by a declaration of policy by the Secretary of the Interior and, they add, "we don't think legislation is necessary at all."
>
> The Department of the Interior, the Deputy Attorney General, and the Department of Agriculture, are opposed to the enactment of S. 1232 or S. 1401. 1/

Public sentiment appeared to favor the states' views, but many conservation groups were apprehensive that Congressional enactment might prove to be inflexible and subject to misinterpretation.

1/Ibid. p. 2.

Endangered Species

Landmark legislation in wildlife conservation--the endangered species bill (H.R. 11363)--was passed by the 91st Congress and became law on December 5, 1969. Public Law 91-135 is regarded by many conservationists as the most important accomplishment in the wildlife field during the year. The Act prevents the importation into the United States of endangered species of wildlife or their parts; proposes an international convention; gives added protection to our own wildlife, such as alligators; and strengthens the program to protect endangered species in the United States by authorizing additional funds. Under the Act, interstate shipment of reptiles, amphibians, and other wildlife or parts thereof taken contrary to State law is prohibited. Certain exceptions are permitted when authorized by the Secretary of the Interior.

Bills similar to H.R. 11363 were introduced during the 90th Congress and passed by the House but not by the Senate. The Subcommittee on Fisheries and Wildlife Conservation of the House Committee on Merchant Marine and Fisheries held hearings on a number of bills on February 19 and 20, 1969. Departmental reports and witnesses were favorable, and the Committee reported a clean bill, H.R. 11363, accompanied by House report No. 91-382.

As summarized in the report, the main purposes of the Bill are as follows:

> The purpose of H.R. 11363 is threefold. First, in order to assist on an international level in the preservation of species threatened with extinction, this legislation would prohibit--except for zoological, educational, scientific, and propagation purposes--the importation into the United States of any species or subspecies of wild mammal, fish, wild bird, amphibian, reptile, mollusk, or crustacean or any part or products or egg thereof that are threatened with worldwide extinction.
>
> Second, in order to assist the States in stopping or reducing illegal traffic in certain protected species of wild mammal, wild bird, amphibian, reptile, mollusk, or crustacean or any part or egg thereof, this ligislation would make it unlawful for anyone knowingly to put into interstate commerce or foreign commerce any such species taken contrary to any Federal, State, or foreign laws or regulations. Present law extends this protection only to wild mammals or wild birds or parts thereof.
>
> Third, in order to assist in protecting any endangered species of native fish or wildlife, this legislation would authorize the Secretary of the Interior to acquire privately owned lands within the boundaries of any area administered by him for the purpose of conserving, protecting, restoring, or propagating such species. 1/

The Senate Subcommittee on Energy, Natural Resources, and the Environment of the Committee on Commerce held hearings on three Senate bills on May 14 and 15, 1969. Testimony strongly supported the protection of endangered species. It was pointed out that in the past century and a half

---

1/91st Cong., 1st sess. House. Endangered Species. Report to accompany H.R. 11363. Washington, July 18, 1969. p. 1-2. (Report no. 91-382)

more than 200 species of birds, fish, and mammals have disappeared from the face of the earth. According to the Department of the Interior, the United States alone accounted for 48 of those species. At present, the Department includes 78 species on its endangered list.

On a world-wide basis the International Union for the Conservation of Nature and Natural Resources lists as rare or endangered more than 550 species of birds and mammals alone. Adding reptiles and other animals to this list brings the world figure to an estimated 1,000 endangered species, emphasizing the international nature of the protection problem and the urgent need for Public Law 91-135.

The Urban Environment

The critical need to improve the quality of our expanding urban areas received considerable attention in several major reports.

The report of the National Commission on Urban Problems, entitled "Building the American City", made it clear that improvements in the quality of urban life are intimately tied to sound methods of environmental management.

> The Commission firmly believes that, no matter what else the Nation attempts to do to improve its cities, America will surely fail to build a good urban society unless we begin to have a new respect--reverence is not too strong a word--for the natural environment that surrounds us ... To walk the slums of America, even intermittently as the members of this Commission have done, is to know that constant contact with filth and ugliness can be as harmful to esthetic and moral sensibilities as the pollutants we breathe can be to our bodies ... In seeking solutions and directions in the specific areas of the Commission's mandate, we found environmental issues crucial in every area. One of our central concerns is housing. But it is impossible to conceive of good housing downwind from a factory spewing ashes and noxious gases, in neighborhoods so poorly served by local government that trash and filth dominate the scene. ... Similarly, this Commission's concern with rational land use patterns cannot be divorced from what the Nation has done, is doing, or intends to do about resource management. Efforts to control air and water pollution, prevent scenic defacement, and treat wastes of all kinds will be important in determining where old cities will stagnate, where new communities will develop, where industry will expand, where people will move, where vacationers will spend their dollars, where local economies will prosper or suffer. 1/

1/91st Cong., 1st session. Building the American City. House Document 91-34.

The Commission's report outlined four basic solutions: (1) developing a technology of waste and resource management to keep pace with the technologies through which we pollute our environment; (2) improving the coordination of government structure at all levels to encourage quick application of research breakthroughs, whether made by local governments or private industry; (3) making certain that there are no competitive disadvantages to industry in complying with regional pollution abatement controls; and (4) encouraging citizen awareness and willingness to probe specific environmental issues and to effect the setting of priorities in urban policy.

In August 1969, the Citizens' Advisory Committee on Environmental Quality submitted its first report to the President.[1] The report dealt with a number of specific problems relating to the urban environment:

Trees in the City. The Committee expressed concern over the loss of trees to disease in cities and suburbs. "Trees lend charm and softness to the crowded urban scene and give a sense of scale and proportion to man's work. We believe also that they are an economic asset to the cities worth protecting."

The Committee recommended that either the United States Forest Service or the National Park Service be authorized to establish an urban tree program in cooperation with States and local communities.

1/ Citizens' Advisory Committee on Environmental Quality. Report to the President and to the President's Council on Environmental Quality. Executive Office of the President, August 1969.

Urban Recreation. Several avenues of approach were recommended by the Committee for developing more effective recreation programs in urban areas. Among these were: (1) a special Federal grant program to provide swimming programs for core city young people; (2) 90 percent grants for demonstration projects in the Urban Beautification program; (3) use of Federal grants for operation and maintenance of city parks; (4) Federal grants to provide programming in parks and train leaders to carry out programs; and (5) establishment of a special task force under the Vice President's leadership to review recreational needs of urban areas and evaluate existing Federal programs.

Noise. The Committee was not sanguine about current research on noise abatement, and felt unable, without further assistance from scientists and engineers, to make technical recommendations. "We are not even to that preliminary stage in coping with the pervasive noise of everyday urban living--the roar of the buses, the shrieks of sirens, and the clatter of jackhammers. Some cities have controlled auto horns. Improved building codes offer another opportunity."

The fundamental elements of emerging urban policy were seen to involve an increasingly higher priority for environmental quality. In an article entitled "Toward a National Urban Policy," Daniel P. Moynihan, Presidential Adviser on Urban Affairs, stated:

> The Federal government, by its own example, and by incentives, should seek the development of a far heightened sense of the finite resources of the natural environment, and the fundamental importance of asthetics in successful urban growth. The process of "uglification" may first have developed in Europe; but, as with much else, the technological breakthroughs have taken place in the United States. American cities have grown to be as ugly as they are, not as a consequence of the failure of design, but rather because of the success of a certain interaction of economic, technological, and cultural forces. It is economically efficient to exploit the natural resources of land, and air, and water by technological means that the culture does not reject, albeit that the result is an increasingly despoiled, debilitated, and now even dangerous urban environment. It is not clear how this is to change, and so the matter which the twenty-second century, say, will almost certainly see as having been the primary urban issue of the twentieth century is ranked last in the public priorities of the moment.[1]

1/ Daniel P. Moynihan. Toward a National Urban Policy. Public Interest, Fall, 1969.

APPENDIX I

Committee Responsibilities for Federal Programs

Department or Agency	Water-related Work	Committee Having Jurisdiction	
		House	Senate
Department of Agriculture			
Agricultural Stabilization and Conservation Service	Financial and technical assistance for conservation work and in disaster areas	Agriculture	Agriculture and Forestry
Farmers Home Administration	Financial and technical assistance for rural water supply and sewerage	Agriculture	Agriculture and Forestry
Forest Service	Watershed protection, recreation	Agriculture Interior and Insular Affairs	Agriculture and Forestry Interior and Insular Affairs
Soil Conservation Service	Watershed protection, irrigation, water supply, recreation, flood control.	Agriculture Public Works	Agriculture and Forestry Public Works
Department of Commerce			
Bureau of Public Roads	Road and highway drainage	Public Works	Public Works
Environmental Science Services Administration	Hydrometeorological investigations, weather modification research	Interstate and Foreign Commerce	Commerce
Bureau of Standards	Hydraulics research	Science and Astronautics	Commerce
Department of Defense			
Corps of Engineers: Civil Functions	Navigation, flood control, water supply, recreation, hydroelectric power, and multiple-purpose projects	Public Works	Public Works
Department of Health, Education, and Welfare			
Public Health Service	Water quality	Public Works Interstate and Foreign Commerce	Public Works Labor and Public Welfare
Department of Housing and Urban Development			
Land and Facilities Development Administration	Loans and grants for water and sewerage projects	Banking and Currency	Banking and Currency

LRS-156

Committee Responsibilities for Federal Programs, cont'd

Department or Agency	Water-related Work	Committee Having Jurisdiction	
		House	Senate
Department of Housing and Urban Development, cont'd			
Office of Planning Standards and Coordination	Loans and grants for public works planning.	Banking and Currency	Banking and Currency
Department of the Interior			
Office of Water Resources Research	Grants and contracts for water resources research	Interior and Insular Affairs	Interior and Insular Affairs
Office of Saline Water	Research and development on desalting	Interior and Insular Affairs	Interior and Insular Affairs
United States Fish and Wildlife Service; Bureau of Sport Fisheries and Wildlife; Bureau of Commercial Fisheries	Conservation of fish and wildlife	Interior and Insular Affairs; Merchant Marine and Fisheries	Interior and Insular Affairs; Commerce
Bureau of Indian Affairs	Indian water resource projects	Interior and Insular Affairs	Interior and Insular Affairs
Geological Survey	Water resources basic data	Interior and Insular Affairs	Interior and Insular Affairs
Bureau of Land Management	Water resources management on public lands	Interior and Insular Affairs	Interior and Insular Affairs
National Park Service	Water resources management in national parks	Interior and Insular Affairs	Interior and Insular Affairs
Bureau of Outdoor Recreation	Water-based recreation policies	Interior and Insular Affairs	Interior and Insular Affairs
Bureau of Reclamation	Irrigation, water supply, hydroelectric power, multiple purpose projects	Interior and Insular Affairs	Interior and Insular Affairs
Bonneville Power Administration; Southwestern Power Administration; Southeastern Power Administration	Marketing of hydroelectric power	Interior and Insular Affairs; Public Works	Interior and Insular Affairs; Public Works
Federal Water Pollution Control Administration	Pollution abatement, research and grants	Public Works	Public Works

Committee Responsibilities for Federal Programs, cont'd

Department or Agency	Water-related work	Committee Having Jurisdiction	
		House	Senate
Department of State			
International Boundary and Water Commission--United States and Mexico	Water resource development	Foreign Affairs	Foreign Relations
International Joint Commission --United States and Canada	Studies of water resources matters	Foreign Affairs	Foreign Relations
Treasury Department			
United States Coast Guard	Aids to navigation	Merchant Marine and Fisheries	Commerce
Independent Agencies			
Appalachian Regional Commission	Water resources investigations	Public Works	Public Works
Atomic Energy Commission	Research and demonstration on desalting	Joint Committee on Atomic Energy	
Delaware River Basin Commission	Water resources planning and management for all purposes	Judiciary	Judiciary Public Works Interior and Insular Affairs
Federal Power Commission	Hydroelectric power studies	Interstate and Foreign Commerce	Commerce
National Science Foundation	Water resources research	Science and Astronautics	Labor and Public Welfare
Saint Lawrence Seaway Development Corporation	Navigation on St. Lawrence River	Public Works	Public Works Foreign Relations
Tennessee Valley Authority	Multiple purpose water resource development	Public Works	Public Works
Water Resources Council and River Basin Commissions	Water resources planning	Interior and Insular Affairs	Interior and Insular Affairs

Source: Library of Congress. Legislative Reference Service. Congressional Handling of Water Resources, by Theodore M. Schad and Elizabeth M. Boswell. Washington, December 15, 1967. (Mimeo.)